Martin Weidenbörner

Mycotoxins and Their Metabolites in Humans and Animals



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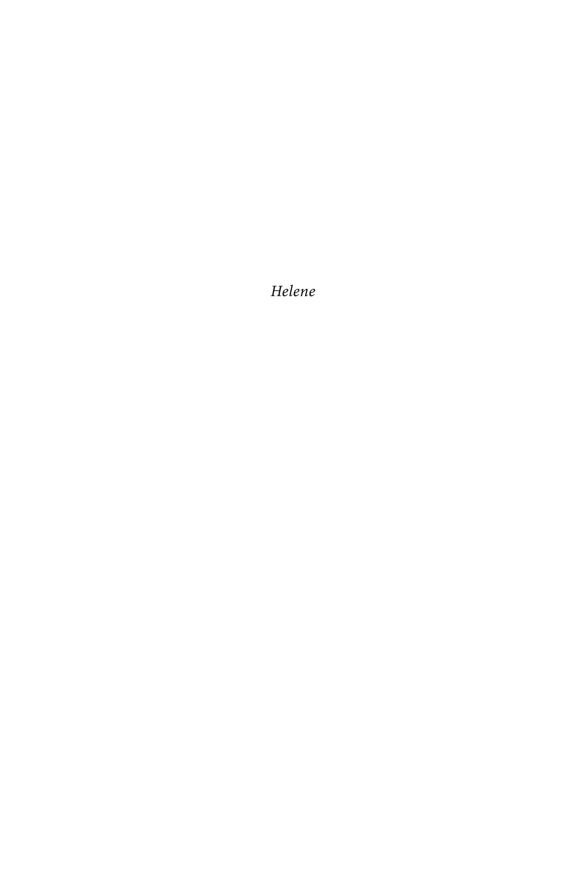
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Preface

Mycotoxins are secondary toxic mold products which are widespread in foods and feeds. The already published books *Mycotoxins in Feedstuffs* and *Mycotoxins in Foodstuffs* provide a good overview of mycotoxins. It is estimated that 4.5 billion of the world's population are exposed to mycotoxins, which can be found in temperate as well as in continental climates. However, especially in low-income countries (e.g., parts of Africa, Southeast Asia, Central and South America) people are chronically exposed to high levels of mycotoxins. In these countries, staple foods like groundnuts and other nuts, maize, as well as other cereals, are especially affected. For example, in West Africa aflatoxin contamination of humans starts in utero and continues throughout life. Besides the hepatitis B virus (HBV), exposure to high levels of dietary aflatoxins poses a major risk for developing human hepatocellular carcinoma (HCC) in these countries. However, even low levels of aflatoxin ingestion causes a suppression of the immune system and increases susceptibility to diseases in several animal species.

Besides their acute toxicity, mycotoxins have other harmful effects. They are, for example, cytotoxic, genotoxic, hepatotoxic, nephrotoxic, mutagenic, neurotoxic, and teratogenic. Human toxicoses due to mycotoxins have been reported, for example, in China, India, Japan, Kenya, Korea, and Russia. If optimal conditions of temperature, humidity, and a suitable substrate prevail, mycotoxins are produced on agricultural commodities in the field, in storage and/or during processing. Because mycotoxins are known to have these detrimental effects, many countries have set legal limits for these toxic fungal metabolites in order to limit their intake.

Contamination especially by aflatoxins, fumonisins, ochratoxin, deoxynivalenol, and zearalenone of a wide range of food products from around the world is of major concern. These food products are mainly of plant origin. Foodstuffs of animal origin, except milk and derived products, show a lower contamination rate. Furthermore, their mycotoxin concentration is usually low. Therefore, food items of animal origin generally pose a minor danger to consumers. However, the milk and breast milk mycotoxin AFM₁, which is also found in milk-derived products, can concentrate on foods. As a result, the contamination of babies via breast milk (mainly AFM₁) in different parts of the world should not be underestimated. The capacity of babies for biotransformation of carcinogens is generally slower than that in adults. By comparison, foodstuffs of plant origin play a major role in the mycotoxin contamination of human beings. This mycotoxin contamination is well

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documented. It is also proved by several publications, which show the presence of mycotoxins in human organs, tissues, and fluids.

Besides the above-mentioned mycotoxins, numerous other toxic fungal metabolites exist, which all pose either a minor or major danger. They are of great concern from a food perspective regarding human exposure.

This book summarizes the results of publications dealing with the natural and artificial contamination of humans and animals by mycotoxins, as well as mycotoxin experiments with animals. The major part of the book lists animal studies that investigate deposits and elimination of these toxic fungal metabolites. Furthermore, the results of articles documenting mycotoxin contamination of pets are also presented. In addition, information about detoxification products and the duration of a mycotoxin in and its clearance time from an animal are given. Moreover, the book gives advice on whether antimycotoxic substances are effective in reducing mycotoxin contamination in animals and humans.

This book provides physicians with a fast and comprehensive overview of the countries in which mycotoxin contamination of humans predominantly happens, as well as the concentration at which specific mycotoxins are found in human organs, tissues, and fluids. Veterinarians are informed about what mycotoxins, at what concentrations, can be found naturally in animals. More detailed information is presented if the index number referring to the corresponding publication at the end of the book is used.

This book may be suitable for physicians (global), pathologists (global), epidemiologists, veterinarians, nutritionists, livestock breeders, pet keepers, farmers, the food and feed industry, institutes (e.g., consumer production), ministries (global), libraries, hospitals, healthware stations, UNO, mycologists, mycotoxicologists, microbiologists, biologists, and students of corresponding fields

For practical use, the different mycotoxins in humans, animals, organs, tissues, or fluids are listed showing natural or artificial mycotoxin contamination. Therefore, each mycotoxin can be looked up for natural or artificial presence at the end of the book.

The book exclusively comprises articles treating concentrations of mycotoxins in humans or animals. Publications or data which express mycotoxins in % values, radioactivity or in other ways are not considered. Articles dealing with *in vitro* data are also not presented. All articles presented are available as publications of German Scientific Libraries as well as the U.S. National Library of Medicine–National Institutes of Health. The most cited publications have been included. Articles cited in this book have been selected by preference, where a declaration of a mycotoxin concentration or any advice of it is given in the title. Nevertheless, some articles containing no concentration declaration in the title, but only in the running text, are also cited.

Each declaration of the mycotoxin contamination of humans or animals comprises five main categories, e.g.:

incidence: 3/7 - three positives for aflatoxin contamination in relation to seven investigated sample

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sample constitution: origin of the test people and/or composition of the sample contamination: natural or artificial (which concentration of a mycotoxin has been applied in an experiment)

concentration: residue values of the mycotoxin(s)

country: origin of the publication, in some cases, also origin of the test people.

If a sample shows a "natural contamination", information on the sample constitution is given briefly. In most cases, where a sample shows a "natural contamination", details were not available in the corresponding article so further comments are omitted. This may not be true for human beings. In the case of an "artificial contamination", a more precise definition of the sample constitution is presented.

Usually, the highest mycotoxin value or the highest and the lowest value of mycotoxin contamination in an experiment is given. The presented concentrations occur in the way they are presented in the published papers. If a variant of a trial is not listed, no mycotoxin contamination is recorded. However, in some cases, a variant may be stated although mycotoxin concentration is not detected. In general, HPLC values have been used for concentration declaration.

If concentration of milk mycotoxins is given, this milk more or less comes directly from cows (natural contamination). You will find additional information about natural mycotoxin contamination of milk, for example processed milk (pasteurized, UHT-milk, etc.) in *Mycotoxins in Foodstuffs*. In addition, data on the natural mycotoxin contamination of "cow milk", "human breast milk", "pig kidney", "pig serum", etc., can be found in the book *Mycotoxins in Foodstuffs*. For a comprehensive overview, these values as well as new data have also been published here.

Bonn, Germany

Martin Weidenbörner

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Abbreviations

AC β -apo-8'-carotenal ACs activated carbons

af affected AF(s) aflatoxin(s)

AFB-AA aflatoxin B₁-albumin adducts

AFB₁ aflatoxin B₁

AFB₁ endo-epoxide aflatoxin B₁ 8,9-endo-epoxide AFB₁ exo-epoxide aflatoxin B₁ 8,9-exo-epoxide

AFB,-FAPy 8,9-dihydro-8-(2,6-diamino-4-oxo-3,4-dihydropyrimid-

5-yl-formamido)-9-hydroxyaflatoxin B

AFB₁-FAPyr 2,3-dihydro-2-(N⁵-formyl-2',5',6'-triamino-4'-oxo-

N⁵-pyrimidyl- 3-hydroxyaflatoxin B₁

AFB- N^7 -FAPyr (minor) 8,9-dihydro-8-(2-amino-6-formamido-4-oxo-3,

4-dihydropyrimid- 5-yl amino)-9-hydroxyaflatoxin B₁

AFB-N⁷-FAPyr (major) 8,9-dihydro-8-(2,6-diamino-4-oxo-3,4-dihydropyrimid-

5-yl formamido)-9-hydroxyaflatoxin B₁

 $\begin{array}{lll} \text{AFB-N^7-Gua} & 2,3-\text{dihydro-}2-(N^7\text{-guanyl})-3-\text{hydroxyaflatoxin B}_1\\ \text{AFB}_1\text{-}N^7\text{-Gua}^1 & 2,3-\text{dihydro-}2-(N^7\text{-guanyl})-9-\text{hydroxyaflatoxin B}_1\\ \text{AFB}_1\text{-}N^7\text{-Gua}^2 & 2,3-\text{dihydro-}2-(N^7\text{-guanyl})-3-\text{hydroxyaflatoxin B}_1\\ \text{AFB}_1\text{-}N^7\text{-Gua}^3 & 8,9-\text{dihydro-}8-(N^7\text{-guanyl})-9-\text{hydroxyaflatoxin B}_1\\ \end{array}$

AFB₁-SG aflatoxin B₁-glutathione conjugate

AFB-GuaI 2,3-dihydro-2-(7'-guanyl)-3-hydroxyaflatoxin B

AFB-NAC AFB₁-mercapturic acid exo-AFB₁-mercapturic acids

AFL aflatoxicol

AFL-g aflatoxicol-glucuronide

AFLM₁ aflatoxicol M₁

AFLM,-g aflatoxicol M,-glucuronide

 AFM_1 aflatoxin M_1

AF- N^7 -Gua aflatoxin- N^7 -guanine

xiv Abbreviations

 $\begin{array}{lll} AFP_{_1} & & \text{aflatoxin P}_{_1} \\ AFQ_{_1} & & \text{aflatoxin Q}_{_1} \\ AMB & & \text{amphotericin B} \end{array}$

avg average

b wt bodyweight

B-I/B-II barley cultures of *Penicillium viridicatum*

BC β -carotene

BEN Balkan endemic nephropathy
BHA 2(3)-tert-butyl-4-hydroxyanisole

BHT butylated hydroxytoluene

bmi body mass index BNF/ β NF β -naphthoflavone

BSO D,L-buthionine-S-sulfoximine L-BSO L-butionine-sulfoximine

ca case(s)

CAC1 activated charcoal
CAC2 activated charcoal
CHL chlorophyllin

CIN chronic interstitial nephropathy

CIT citrinin

CMD choline/methionine-deficient diet

CMS complete basal diet conc concentration const constitution CP calcium propionate cyclopiazonic acid

CPFA cyclopropenoid fatty acid(s)

CPL clinoptilolite

CPR chromatogram poorly resolved

CX canthaxanthin

DAS diacetoxyscirpenol DEDON deepoxydeoxynivalenol

DEM diethyl maleate
DHBV duck hepatitis B virus
DHEA dehydroepiandrosterone

DIOL 2,3-dihydro-2,3-dihydroxyaflatoxin B

DMSO dimethyl sulfoxide DNA desoxy nucleic acid

DOM/DOM-1 deepoxydeoxynivalenol = 3α , 7α ,

15-trihydroxytrichothec-9, 12-diene-8-one

DON deoxynivalenol (vomitoxin)

Abbreviations xv

3-aDON 3-acetyldeoxynivalenol DYP dried yeast product

EFDV encephalopathy and fatty degeneration of the viscera

ELISA enzyme-linked immunosorbent assay

EN endemic nephropathy

eq equivalent(s)
EQ ethoxyquin

FA fusaric acid
FB₁ fumonisin B₁
FB₂ fumonisin B₂
FB₃ fumonisin B₃

FPC fish protein concentrate

FX fusarenon-X

Gluc glucuronide conjugate
GSH reduced glutathione
GTP green tea polyphenol

GUA/Gua guanine

HbsAg hepatitis B virus surface antigen

HBV hepatitis B virus

HCC hepatocellular carcinoma

HPLC-f high-performance liquid chromatography with

fluorescence detection

hr hour(s)

HSCAS hydrated sodium calcium aluminosilicate

hum human(s)

I3C indole-3-carbinol ia intra-aortal

IA invasive aspergillosis

IDMS isotope dilution mass spectrometry

ig intragastric
in intranasal
ip intraperitoneal
it intratracheal
iv intravenous
ivs intravascular

KIN karyomegalic interstitial nephritis

LOD limit of detection
LOQ limit of quantification
Lys-AFB,/AFB,-lys lysine-AFB,/AFB,-lysine

xvi Abbreviations

min minute(s)

MOS mannanoligosaccharide
MWF micronized wheat fibers
3-MC 3-methylcholanthrene

na not analyzed
NAC mercapturic acid
nd not detected
ndr not determined
nec no exact comment

neg negative NIV nivalenol

NMB nonmoldy barley
NMB+T nonmoldy barley+toxin

no number

NPC nonparenchymal cells

NR not reported

o oral

OTA ochratoxin A

OP-OTA lactone opened ochratoxin A OTA-OH 4-hydroxyochratoxin A

OT α ochratoxin α PA penicillic acid

PB phenobarbital/phenobarbitone

PC parenchymal cells
PCB polyclorinated biphenyls

peo test people PG propylene glycol

PHC primary hepatocellular carcinoma

PNA penitrem A
pos positive
pr present(ed)

RBC red blood cells
resp respectively

rRNA ribosomal ribonucleic acid

sa sample(s)
sc subcutaneous
SG glutathione

t topical tr traces

TRICHO trichothecene

Abbreviations xvii

UTT urinary tract tumors

VER verrucarol

WHV woodchuck hepatitis virus

wt weight

YCW yeast cell walls

ZEA zearalenone

ZEA-Gluc zearalenone-glucuronide

 α -ZEAOL α -zearalenol

 α -ZEAOL-Gluc α -zearalenol-glucuronide

 β -ZEAOL β -zearalenol

β-ZEAOL-Gluc β-zearalenol-glucuronide

± higher/lower values are reported

Notation

```
kg = Kilogram 
mg = Milligram = 10^{-3} g; 1 mg/kg = 1:10^6 = ppm = parts per million 
µg = Microgram = 10^{-6} g; 1 µg/kg = 1:10^9 = ppb = parts per billion 
l = Liter 
ml = Milliliter = 10^{-3} l; 1 ml/l = 1:10^3 
µl = Microtliter = 10^{-3} ml; 1 µl/l = 1:10^6 = ppm = parts per million
```

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Human

Human Natural Contamination

Human amniotic fluid may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A incidence: 4/22, sa. const.: people of Germany, contamination: natural, conc. range: <0.06-0.13 ng/ml, Ø conc.: 0.11 ng/ml, country: Germany³⁴¹

Human bile may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 3/4*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr**-8 µg/kg, country: USA/Thailand¹⁰, *EFDV ca., **partly unconfirmed incidence: 2/6*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr**, country: USA/Thailand¹⁰, *dying from causes other than EFDV, **a blue fluorescent spot similar to that of AFB,

Human blood may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 15/625*, sa. const.: people of Nigeria (babies), contamination: natural, conc. range: 22–2,383 ng/l, country: UK/Nigeria²⁰⁵, *cord blood

incidence: 3/461*, sa. const.: people of Ghana, Nigeria, and Kenya (females), contamination: natural, conc. range: 177–280 ng/l, Ø conc.: 223.66 ng/l, country: UK²⁴, *cord blood

incidence: 1/40*, sa. const.: people of Nigeria (neonates), contamination: natural, conc.: 1,131 pg/ml**, country:

Nigeria/UK²⁶², *non-jaundiced, **peripheral blood

incidence: 34/64*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.007-2.2 ng/ml, Ø conc.: 0.1 ng/ml, country: Sierra Leone/UK390, *cord blood incidence: 2/8*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.02-1.7 ng/ml, Ø conc.: 0.86 ng/ml, country: Sierra Leone/UK³⁹⁰, *maternal blood incidence: 4/6*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc. range: 0.02-0.04 ng/ml, country: Sierra Leone/UK390, *low birthweight incidence: 4/5*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.02-2.2 ng/ml, country: Sierra Leone/UK390, *low birthweight incidence: 10/21*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc. range: 0.007-0.5 ng/ml, country: Sierra Leone/ UK390, *normal birthweight incidence: 8/20*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.008-1.6 ng/ml, country: Sierra Leone/ UK390, *normal birthweight

AFLATOXIN B₁ incidence: 6/74*, sa. const.: people of the USA (patients), contamination: natural, conc. range: 2.0–12.0 ng/ml, country: USA¹⁹, *6 Reye's syndrome ca. thereof 4 AFB₁-pos. incidence: 2/5*, sa. const.: people of the USA (children), contamination: natural, conc. range: 11.93–31.3 ng/ml, Ø conc.: 21.615 ng/ml, country: USA⁶⁵, *Reye's syndrome ca. incidence: 5/56*, sa. const.: people of Taiwan (females), contamination: natural, conc. range: 1.4–2.7 μmol/mol DNA**, Ø conc.: 1.94 μmol/mol DNA**, country: Taiwan, Republic of China¹⁵⁶, *cord blood,

**AFB,-DNA adducts

2 Human

incidence: 16/625*, sa. const.: people of Nigeria (babies), contamination: natural, conc. range: 168-69,973 ng/l, country: UK/Nigeria205, *cord blood incidence: 13/125*, sa. const.: people of Kenya (females), contamination: natural, conc. range: 89-11,574 ng/l, country: UK²⁴¹, *maternal blood incidence: 6/77*, sa. const.: people of Nigeria (females), contamination: natural, conc. range: 553-10,390 ng/l, Ø conc.: 3,707.66 ng/l, country: UK²⁴¹, *maternal incidence: 20/461*, sa. const.: people of Ghana, Nigeria, and Kenya (females), contamination: natural, conc. range: 185-43,822 ng/l, country: UK²⁴¹, *cord blood incidence: 2/40*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 590-1,006 pg/ml, Ø conc.: 798 pg/ml, country: Nigeria/UK262, *non-jaundiced, peripheral blood incidence: 3/37*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 130-3,130 pg/ml, Ø conc.: 2,070.33 pg/ml, country: Nigeria/ UK262, *jaundiced, peripheral blood incidence: 3/40*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 474-2,216 pg/ml, Ø conc.: 1,342 pg/ml, country: Nigeria/UK²⁶², *non-jaundiced, cord blood incidence: 6/37*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 214-238,177 pg/ml, Ø conc.: 82,481.16 pg/ml, country: Nigeria/ UK262, *jaundiced, cord blood incidence: 64/64, sa. const.: people of Ghana (34 males and 30 females), contamination: natural, conc. range: 0.3325-2.2703 pmol/mg albumin*, Ø conc.: 0.9972 pmol/mg albumin, country: USA/ Ghana321, *AFB, -albumin adducts incidence: 11/64*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.4-9.0 ng/ml, Ø conc.: 1.0 ng/ml, country: Sierra Leone/UK³⁹⁰, *cord blood

incidence: 2/8*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.2-0.3 ng/ml, Ø conc.: 0.25 ng/ml, country: Sierra Leone/UK390, *maternal blood incidence: 6/6*, sa. const.: people of Sierra Leone (male infants), no contamination with AFB,, conc.: nd, country: Sierra Leone/UK³⁹⁰, *low birthweight incidence: 5/5*, sa. const.: people of Sierra Leone (female infants), no contamination with AFB,, conc.: nd, country: Sierra Leone/UK³⁹⁰, *low birthweight incidence: 4/21*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc. range: 0.5-2.4 ng/ml, country: Sierra Leone/UK390, *normal birthweight incidence: 3/20*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.8-9.0 ng/ml, country: Sierra Leone/ UK390, *normal birthweight incidence: 64/423*, sa. const.: people of Singapore (342 males (53 af) and 81 females (11 af)), contamination: natural, conc. range: 3.0-17 pg/ml, Ø conc.: 5.4 pg/ml, country: Singapore⁴⁴⁴, *normal subjects incidence: 2/302*, sa. const.: people of Singapore (253 males (2 af.) and 49 females), contamination: natural, conc. range: 7.5-7.9 pg/ml, Ø conc.: 7.7 pg/ml, country: Singapore⁴⁴⁴, *hepatitis B carriers incidence: 1/58*, sa. const.: people of Singapore (49 males (1 af) and 9 females), contamination: natural, conc.: 7.4 pg/ml, country: Singapore444, *PHC patients

incidence: 140/140, sa. const.: people of Ghana (males and females), age: 19–86 years, contamination: natural, conc. range: 0.12–3.00 pmol/mg albumin*, Ø conc.: 0.89 pmol/mg albumin, country: USA/Ghana⁴⁵⁷, *AFB₁-albumin adducts incidence: ?/150*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 32.3–35.6 ng/ml, country: Nigeria⁴⁵⁸, *jaundiced, cord blood

Human 3

incidence: 27/201*, sa. const.: people of the UAE (females), contamination: natural, conc. range: 228–15,225 pg/ml, country: UAE⁴⁶⁷, *umbilical cord blood

AFLATOXIN B₂ incidence: 4/625*, sa. const.: people of Nigeria (babies), contamination: natural, conc. range: 15–144 ng/l, country: UK/Nigeria²⁰⁵, *cord blood

incidence: 2/77*, sa. const.: people of Nigeria (females), contamination: natural, conc. range: 28–33 ng/l, Ø conc.: 30.5 ng/l, country: UK²⁴¹, *maternal blood incidence: 19/461*, sa. const.: people of Ghana, Nigeria, and Kenya (females), contamination: natural, conc. range: 10–925 ng/l, country: UK²⁴¹, *cord blood incidence: 1/37*, sa. const.: people of Nigeria (neonates), contamination: natural, conc.: 70 pg/ml, country: Nigeria/ UK²⁶², *jaundiced, cord blood incidence: 7/64*, sa. const.: people of

incidence: 7/64*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.02–1.2 ng/ml, Ø conc.: 0.3 ng/ml, country: Sierra Leone/UK³⁹⁰, *cord blood

incidence: 2/8*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.2-0.3 ng/ml, Ø conc.: 0.25 ng/ml, country: Sierra Leone/UK390, *maternal blood incidence: 6/6*, sa. const.: people of Sierra Leone (male infants), no contamination with AFB, conc.: nd, country: Sierra Leone/UK³⁹⁰, *low birthweight incidence: 5/5*, sa. const.: people of Sierra Leone (female infants), no contamination with AFB2, conc.: nd, country: Sierra Leone/UK³⁹⁰, *low birthweight incidence: 3/21*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc. range: 0.07-0.1 ng/ml, country: Sierra Leone/UK390, *normal birthweight incidence: 1/20*, sa. const.: people of Sierra

Leone (female infants), contamination:

Leone/UK390, *normal birthweight

natural, conc.: 0.7 ng/ml, country: Sierra

AFLATOXIN G,

incidence: 1/14, sa. const.: people of The Sudan (females), contamination: natural, conc.: 787 pg/ml, country: UK/The Sudan¹³⁴

incidence: 6/625*, sa. const.: people of Nigeria (babies), contamination: natural, conc. range: 97-16,543 ng/l, country: UK/Nigeria²⁰⁵, *cord blood incidence: 4/461*, sa. const.: people of Ghana, Nigeria, and Kenya (females), contamination: natural, conc. range: 611-2,086 ng/l, country: UK241 *cord blood incidence: 4/40*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 1,149-3,151 pg/ml, Ø conc.: 1,981.5 pg/ml, country: Nigeria/UK²⁶², *non-jaundiced, peripheral blood incidence: 3/37*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 850-11,728 pg/ml, Ø conc.: 7,185 pg/ml, country: Nigeria/UK²⁶², *jaundiced, peripheral blood incidence: 2/40*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 1,348-1,985 pg/ml, Ø conc.: 1,666.5 pg/ml, country: Nigeria/UK262, *non-jaundiced, cord blood incidence: 1/37*, sa. const.: people of Nigeria (neonates), contamination: natural, conc.: 2,053 pg/ml, country: Nigeria/UK²⁶², *jaundiced, cord blood incidence: 12/64*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.004-8.8 ng/ml, Ø conc.: 1.6 ng/ml, country: Sierra Leone/UK390, *cord blood incidence: 1/8*, sa. const.: people of Sierra Leone, contamination: natural, conc.: 8.8 ng/ml, country: Sierra Leone/UK390, *maternal blood incidence: 1/6*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc.: 2.2 ng/ml, country: Sierra Leone/UK390, *low birthweight incidence: 3/5*, sa. const.: people of Sierra Leone (female infants), contamination:

natural, conc. range: 2.8-5.9 ng/ml, country: Sierra Leone/UK390, *low birthweight incidence: 1/21*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc.: 0.004 ng/ml, country: Sierra Leone/UK390, *normal birthweight incidence: 2/20*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.2-3.2 ng/ml, Ø conc.: 1.7 ng/ml, country: Sierra Leone/ UK390, *normal birthweight incidence: 1/58*, sa. const.: people of Singapore (49 males (1 af) and 9 females), contamination: natural, conc.: 17 pg/ml, country: Singapore444, *PHC patients incidence: 1/15, sa. const.: people of Kenya (9 male patients (1 af*) and 6 female), age: 0.6-52 years?, contamination: natural, conc.: 13,230 pg/ml, country: Kenya/UK466, *additionally stomach cancer

AFLATOXIN G,

incidence: 1/14, sa. const.: people of The Sudan (females), contamination: natural, conc.: 8 pg/ml, country: UK/The Sudan¹³⁴ incidence: 13/625*, sa. const.: people of Nigeria (babies), contamination: natural, conc. range: 15–275 ng/l, country: UK/Nigeria²⁰⁵, *cord blood

incidence: 1/461, sa. const.: people of Ghana, Nigeria, and Kenya (females), contamination: natural, conc.: 37 ng/l, country: UK²⁴¹, *cord blood incidence: 1/40*, sa. const.: people of Nigeria (neonates), contamination: natural, conc.: 438 pg/ml, country: Nigeria/UK²⁶², *non-jaundiced, cord blood incidence: 2/37*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 13 pg/ml, Ø conc.: 13 pg/ml, country: Nigeria/UK²⁶², *jaundiced, cord blood

incidence: 26/64*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.002–3.0 ng/ml, Ø conc.: 0.07 ng/ml, country: Sierra Leone/UK³⁹⁰, *cord blood

incidence: 5/8*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.004-0.1 ng/ml, Ø conc.: 0.0408 ng/ml, country: Sierra Leone/UK³⁹⁰, *maternal blood incidence: 4/6*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc. range: 0.02-3.0 ng/ml, country: Sierra Leone/UK390, *low birthweight incidence: 2/5*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.03-0.4 ng/ml, Ø conc.: 0.215 ng/ml, country: Sierra Leone/UK390, *low birthweight incidence: 6/21*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc. range: 0.006-0.3 ng/ml, country: Sierra Leone/ UK390, *normal birthweight incidence: 8/20*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.004-0.4 ng/ml, country: Sierra Leone/ UK390, *normal birthweight

AFLATOXIN M,

incidence: 1/14, sa. const.: people of The Sudan (females), contamination: natural, conc.: 5 pg/ml, country: UK/The Sudan¹³⁴ incidence: 25/625*, sa. const.: people of Nigeria (babies), contamination: natural, conc. range: 32–11,354 ng/l, country: UK/Nigeria²⁰⁵, *cord blood incidence: 3/77*, sa. const.: people of

Nigeria (females), contamination: natural, conc. range: 38–483 ng/l, Ø conc.: 262 ng/l, country: UK²⁴¹, *maternal blood incidence: 63/461*, sa. const.: people of Ghana, Nigeria, and Kenya (females), contamination: natural, conc. range: 25–8,942 ng/l, country: UK²⁴¹, *cord blood

incidence: 4/37*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 24–8,464 pg/ml, Ø conc.: 3,301.75 pg/ml, country: Nigeria/ UK²⁶², *jaundiced, peripheral blood

incidence: 1/40*, sa. const.: people of Nigeria (neonates), contamination: natural, conc.: 40 pg/ml, country: Nigeria/ UK²⁶², *non-jaundiced, cord blood incidence: 2/37*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 57–713 pg/ml, Ø conc.: 385 pg/ml, country: Nigeria/UK²⁶², *jaundiced, cord blood

incidence: 5/20, sa. const.: people of Egypt (females), contamination: natural, conc. range: 0.1–2.1 ng/ml, Ø conc.: 1.18 ng/ml, country: Egypt³⁵²

incidence: 36/64*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.007–5.1 ng/ml, Ø conc.: 0.4 ng/ml, country: Sierra Leone/UK³⁹⁰, *cord blood

incidence: 3/8*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.09–0.8 ng/ml, Ø conc.: 0.397 ng/ml, country: Sierra Leone/UK³⁹⁰, *maternal blood

incidence: 3/6*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc. range: 0.4–0.8 ng/ml, country: Sierra Leone/UK³⁹⁰, *low birthweight

incidence: 3/5*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.2–5.1 ng/ml, country: Sierra Leone/UK³⁹⁰, *low birthweight incidence: 10/21*, sa. const.: people of Sierra Leone (male infants),

contamination: natural, conc. range: 0.03–1.7 ng/ml, country: Sierra Leone/ UK³⁹⁰, *normal birthweight incidence: 10/20*, sa. const.: people of

Sierra Leone (female infants), contamination: natural, conc. range: 0.01–2.9 ng/ml, country: Sierra Leone/ UK³⁹⁰, *normal birthweight

incidence: 111/166*, sa. const.: people of the UAE, contamination: natural, conc. range: 0.05–10.44 ng/ml, country: UAE⁴²⁸, *cord blood

incidence: 113/166*, sa. const.: people of the UAE (females), contamination:

natural, conc. range: 0.03–8.49 ng/ml, country: UAE⁴²⁸, *maternal blood incidence: 1/1*, sa. const.: person of the UAE (premature baby boy), contamination: natural, conc.: 3.99 ng/ml, country: UAE⁴²⁸, *cord blood

incidence: 6/15, sa. const.: people of Kenya (9 male (4 af*) and 6 female patients (2 af*)), age: 0.6–52 years?, contamination: natural, conc. range: 30–757 pg/ml, Ø conc.: 414.8 pg/ml, country: Kenya/UK⁴⁶⁶, *additionally cirrhosis, hepatitis, or marasmic kwashiorkor

incidence: 107/201*, sa. const.: people of the UAE (females), contamination: natural, conc. range: 110–4,060 pg/ml, country: UAE⁴⁶⁷, *umbilical cord blood

Aflatoxin M_2

incidence: 21/625*, sa. const.: people of Nigeria (babies), contamination: natural, conc. range: 14–3,644 ng/l, country: UK/Nigeria²⁰⁵, *cord blood

incidence: 4/77*, sa. const.: people of Nigeria (females), contamination: natural, conc. range: 48–3,480 ng/l, Ø conc.: 948.25 ng/l, country: UK²⁴¹, *maternal blood

incidence: 47/461*, sa. const.: people of Ghana, Nigeria, and Kenya (females), contamination: natural, conc. range: 15–732 ng/l, country: UK²⁴¹, *cord blood

incidence: 5/40*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 51–664 pg/ml, Ø conc.: 313.2 pg/ml, country: Nigeria/UK²⁶², *non-jaundiced, peripheral blood

peripheral blood incidence: 3/37*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 233–3,557 pg/ml, Ø conc.: 1,666.66 pg/ml, country: Nigeria/ UK²⁶², *jaundiced, peripheral blood incidence: 3/40*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 32–649 pg/ml, Ø conc.: 261.67 pg/ml, country: Nigeria/ UK²⁶², *non-jaundiced, cord blood

incidence: 3/37*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 374-974 pg/ml, Ø conc.: 687.67 pg/ml, country: Nigeria/ UK262, *jaundiced, cord blood incidence: 19/64*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.02-5.4 ng/ml, Ø conc.: 0.7 ng/ml, country: Sierra Leone/UK390, *cord blood incidence: 1/8*, sa. const.: people of Sierra Leone, contamination: natural, conc.: 2.5 ng/ml, country: Sierra Leone/ UK390, *maternal blood incidence: 5/6*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc. range: 0.1-5.4 ng/ml, country: Sierra Leone/UK390, *low birthweight incidence: 3/5*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.3-0.7 ng/ml, country: Sierra Leone/UK390, *low birthweight incidence: 1/21*, sa. const.: people of Sierra

Leone (male infants), contamination: natural, conc.: 0.07 ng/ml, country: Sierra Leone/UK390, *normal birthweight incidence: 4/20*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.08-0.3 ng/ml, country: Sierra Leone/ UK390, *normal birthweight

incidence: 1/15, sa. const.: people of Kenya (9 male (1 af*) and 6 female), age: 0.6-52 years?, contamination: natural, conc.: 99 pg/ml, country: Kenya/UK466, *additionally cirrhosis

incidence: 31/201*, sa. const.: people of the UAE (females), contamination: natural, conc. range: 210-3,700 pg/ml, country: UAE467, *umbilical cord blood

Aflatoxin $M_1 + M_2$ incidence: ?/125*, sa. const.: people of Kenya (females), contamination: natural, conc. range: 12-1,689 pg/l, country: UK²⁴¹, *maternal blood

AFLATOXIN incidence: 3/10*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 50-1,680 pg/ml, country: Kenya/UK95, *control incidence: 4/11*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 99-9,571 pg/ml, country: Kenya/UK95, *marasmus ca. incidence: 2/4*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 41-917 pg/ml, country: Kenya/UK95, *marasmic kwashiorkor ca. incidence: 9/14*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 16-66,588 pg/ml, country: Kenya/UK95, *kwashiorkor ca. incidence: 475/479, sa. const.: people of Benin and Togo (children), contamination: natural, conc. range: 5–1,064 pg/mg albumin*, country: UK/Benin¹⁴⁰, *AF-albumin adducts incidence: 2/35*, sa. const.: people of Thailand (females), contamination: natural, conc. range: pos, country: UK/USA381, *maternal blood incidence: 17/35*, sa. const.: people of Thailand (neonates), contamination: natural, conc. range: ≤4.2 ng/ml, country: UK/USA381, *cord blood incidence: 28/28, sa. const.: people of Nepal, contamination: natural, conc. range: 0.06-10 ng/ml, country: UK/USA381 incidence: 119/119*, sa. const.: people of The Gambia (females), contamination: natural, conc. range: 4.8-260.8 pg/mg, Ø conc.: 40.4 pg/mg, country: UK/The Gambia⁴²⁰, *maternal blood incidence: 48/99*, sa. const.: people of The Gambia (neonates), contamination: natural, conc. range: 5.0-89.6 pg/mg, Ø conc.: 10.1 pg/mg, country: UK/The Gambia⁴²⁰, *cord blood incidence: 13/118*, sa. const.: people of The Gambia (infants), contamination: natural, conc. range: 5.0-30.2 pg/mg, Ø conc.: 8.7 pg/mg, country: UK/The

Gambia⁴²⁰, *infant blood after 16 weeks of birth

incidence: ?/?*, sa. const.: people of the

Republic of Guinea (males and females), Ø age: 33.7 years, contamination: natural, Ø conc.: 5.5 pg/mg** ***, country: UK/Republic of Guinea541, *control, **level at harvest (for detailed information please see the article), ***AF-albumin adducts incidence: ?/?*, sa. const.: people of the Republic of Guinea (males and females), Ø age: 28.6 years, contamination: natural, Ø conc.: 7.2 pg/mg** ***, country: UK/Republic of Guinea⁵⁴¹, *intervention group, **level at harvest (for detailed information please see the article), ***AF-albumin adducts incidence: ?/?*, sa. const.: people of the Republic of Guinea (males and females), Ø age: 33.7 years, contamination: natural, Ø conc.: 18.7 pg/mg** ***, country: UK/Republic of Guinea⁵⁴¹, *control, **level 5 months later at postharvest (for detailed information please see the article), ***AF-albumin adducts incidence: ?/?*, sa. const.: people of the Republic of Guinea (males and females), Ø age: 28.6 years, contamination: natural, Ø conc.: 11.7 pg/mg** ***, country: UK/Republic of Guinea⁵⁴¹, *intervention group, **level 5 months later at postharvest (for detailed information please see the article), ***AF-albumin adducts incidence: ?/?*, sa. const.: people of the Republic of Guinea (males and females), Ø age: 33.7 years, contamination: natural, Ø conc.: 18.7 pg/mg** ***, country: UK/Republic of Guinea⁵⁴¹, *control, **level at the end of the study (for detailed information please see the article), ***AF-albumin adducts

incidence: ?/?*, sa. const.: people of the

Ø conc.: 8.0 pg/mg** ***, country:

Republic of Guinea (males and females),

Ø age: 28.6 years, contamination: natural,

UK/Republic of Guinea⁵⁴¹, *intervention

group, **level at the end of the study

(for detailed information please see the article), ***AF-albumin adducts incidence: 119/124, sa. const.: people of the Republic of Guinea (children), age: 2–5 years, contamination: natural, conc. range: 8.8–11.0 pg/mg albumin, Ø conc.: 9.9 pg/mg albumin*, country: UK/ Republic of Guinea/USA⁵⁵⁴, *AF-albumin adducts

OCHRATOXIN A incidence: 14/20*, sa. const.: people of Tunisia (males and females), contamination: natural, conc. range: 0-7.5 ng/ml*, country: Tunisia/France184, *healthy control incidence: 52/60, sa. const.: people of Tunisia (males and females), contamination: natural, conc. range: 0-140.5 ng/ml*, country: Tunisia/ France¹⁸⁴, *nephropathy patients incidence: 13/20*, sa. const.: people of Tunisia (males and females), contamination: natural, conc. range: 0-3.2 ng/ml*, country: Tunisia/France¹⁸⁴, *healthy control incidence: 36/40, sa. const.: people of Tunisia (males and females), contamination: natural, conc. range: 1.68-171.25 ng/ml*, country: Tunisia/France184, *nephropathy patients incidence: 73/140*, sa. const.: people of Tunisia (males and females), contamination: natural, conc. range: 0.1-8.8 ng/ml*, country: Tunisia/France¹⁸⁵, *control (general population) incidence: 210/581*, sa. const.: people of Tunisia (males and females), contamination: natural, conc. range: 1.2-100 ng/ml* (12 values from 125 to 1,136 ng/ml), country: Tunisia/ France¹⁸⁵, *with chronic renal failure incidence: 52/100, sa. const.: people of Hungary (in part patients), contamination: natural, conc. range: 0.2-1 ng/ml (34 sa), 1-5 ng/ml (16 sa), 5-10 ng/ml (1 sa), 12.9 ng/ml (1 sa), country: Hungary¹⁹²

incidence: 18/22*, sa. const.: people of France, contamination: natural, conc. range: 0.3–1,001 ng/ml, country: France²⁶¹, *patients (CIN ca.) incidence: 38/71*, sa. const.: people of France, contamination: natural, conc. range: 0.28–6.72 ng/ml, country: France²⁶¹, *patients with renal diseases other than CIN

incidence: 39/39, sa. const.: people of Sweden (females), contamination: natural, conc. range: 90–940 ng/l, Ø conc.: 167 ng/l, country: Sweden²⁹⁴ incidence: 9/216, sa. const.: people of Poland, contamination: natural, conc. range: ≤4.8 ng/cm³, country: Poland³⁰³

incidence: 2/2, sa. const.: people of France (male and female), contamination: natural, conc. range: 20.5–1,001 ng/ml, country: France³¹¹

incidence: 14/21*, sa. const.: people of Tunisia, contamination: natural, conc. range: 0.1–2.3 ng/ml, country: Tunisia/France³²⁹, *healthy persons incidence: 33/33*, sa. const.: people of Tunisia, contamination: natural, conc. range: 0.7–1,136 ng/ml, Ø conc.: 80.59 ng/ml, country: Tunisia/France³²⁹, *nephropathy patients

incidence: 77/79*, sa. const.: people of Germany, contamination: natural, conc. range: 0.06–0.90 ng/ml, country: Germany³⁴¹, *umbilical cord blood

incidence: 2/13, sa. const.: people of Egypt (females), contamination: natural, conc. range: 3.22–4.12 ng/ml, Ø conc.: 3.67 ng/ml, country: Egypt³⁵²

incidence: 78/144, sa const.: people of Denmark, contamination: natural, conc. range: ≤13.2 μg/l, country: Denmark³86 incidence: 16/64*, sa. const.: people of Sierra Leone, contamination: natural, conc. range: 0.2–3.5 ng/ml, Ø conc.: 0.9 ng/ml, country: Sierra Leone/UK³90, *cord blood incidence: 1/8*, sa. const.: people of Sierra Leone, contamination: natural, conc.: 0.2 ng/ml, country: Sierra Leone/UK³90, *maternal blood

incidence: 6/6*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc.: nd, country: Sierra Leone/ UK³⁹⁰, *low birthweight incidence: 2/5*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.4-0.5 ng/ml, Ø conc.: 0.45 ng/ml, country: Sierra Leone/ UK390, *low birthweight incidence: 3/21*, sa. const.: people of Sierra Leone (male infants), contamination: natural, conc. range: 0.4-0.6 ng/ml, country: Sierra Leone/UK³⁹⁰, *normal birthweight incidence: 7/20*, sa. const.: people of Sierra Leone (female infants), contamination: natural, conc. range: 0.5-2.6 ng/ml, country: Sierra Leone/UK³⁹⁰, *normal birthweight

incidence: 5/200, sa. const.: people of Sweden, contamination: natural, conc. range: \leq 0.88 ng/ml, country: EU³⁹⁶ incidence: 130/160, sa. const.: people of Italy, contamination: natural, conc. range: <0.9 ng/ml (128 sa), \leq 2.83 ng/ml (2 sa), country: EU³⁹⁶

incidence: 267/309, sa. const.: people of Germany, contamination: natural, conc. range: <0.9 ng/ml (254 sa), 1–1.9 ng/ml (9 sa), 2–4.9 ng/ml (3 sa), 7.9 ng/ml (1 sa), country: EU³⁹⁶

incidence: 22/63*, sa. const.: people of the Ivory Coast (males and females), age of affected persons: 19–50 years, contamination: natural, conc. range: 0.00992–5.81 μg/l, Ø conc.: 0.83 μg/l country: France/Ivory Coast/Tunisia⁴³⁸, *apparently healthy volunteers incidence: 8/39*, sa. const.: people of the Ivory Coast (27 males and 12 females), age of affected persons: 25–52 years, contamination: natural, conc. range: 0.167–2.42 μg/l, Ø conc.: 1.05 μg/l country: France/Ivory Coast/Tunisia⁴³⁸, *nephropathy patients

incidence: 210/210, sa. const.: people of Norway (141 males and 69 females), contamination: natural, conc. range:

21–5,534 ng/l, Ø conc.: 397 ng/l, country: Norway 440

incidence: 30/30*, sa. const.: people of Poland, contamination: natural, conc. range: 0.14–3.41 ng/ml, Ø conc.: 1.14 ng/ml, country: Poland⁴⁴⁶, *maternal blood serum

incidence: 28/30*, sa. const.: people of Poland, contamination: natural, conc. range: 0.56-5.42 ng/ml, Ø conc.: 1.96 ng/ml, country: Poland446, *fetal blood serum incidence: 22/44*, sa. const.: people of Chile (healthy donors of Colbún, 16 males (6 af) and 28 females (16 af)), contamination: natural, conc. range: 0.07-2.75 ppb, country: Chile⁵⁰⁴, *for detailed information please see the article incidence: 40/44*, sa. const.: people of Chile (healthy donors of San Vicente Tagua-Tagua, 19 males (16 af) and 25 females (24 af)), contamination: natural, conc. range: 0.22-2.12 ppb, country Chile⁵⁰⁴, *for detailed information please see the article incidence: 202/202, sa. const.: people of Norway (98 males and 104 females), Ø age: 38 years (women), 41 years (men), Ø wt.: 84 kg (men), 64 kg (women), contamination: natural, Ø conc.: 0.18 ng/ml, country: Sweden/Norway506 incidence: 191/191, sa. const.: people of Sweden (133 males and 58 females), Ø age: 43 years (women), 44 years (men), Ø wt.: 84 kg (men), 68 kg (women), contamination: natural, conc. range: 0.03-1.16 ng/ml, Ø conc.: 0.21 ng/ml, country:

incidence: ?/30*, sa. const.: people of Pakistan, contamination: natural, conc. range: 0.036–1.239 ng/ml, country: Pakistan/Germany⁵⁴⁴, *non-diseased control incidence: ?/87*, sa. const.: people of Pakistan, contamination: natural, conc. range: 0.032–3.409 ng/ml, country: Pakistan/Germany⁵⁴⁴, *bladder cancer patients

Sweden/Norway506

incidence: 194/13,797*, sa. const.: people of Yugoslavia, contamination: natural,

Yugoslavia/Sweden⁵⁶⁸, *blood sa. from endemic villages for Balkan nephropathy incidence: 47/3,378*, sa. const.: people of Yugoslavia, contamination: natural, conc. range: 5–50 ng/ml, country: Yugoslavia/ Sweden⁵⁶⁸, *blood sa. from nonendemic villages for Balkan nephropathy incidence: 82/576*, sa. const.: people of Bulgaria, contamination: natural, conc.

conc. range: 5-100 ng/ml, country:

Bulgaria, contamination: natural, conc. range: 1–2 ng/g serum (51 sa), >2–35 ng/g serum (31 sa), country: Bulgaria/France⁵⁷³, *blood sa. from people living in areas with and without endemic villages nephropathy in Bulgaria, for detailed information please see the article

ZEARALENONE

incidence: 8/74*, sa. const.: people of Poland (females), contamination: natural, conc. range: tr-137 ng/ml, country: Poland⁴³², *showed neoplastic lesions in reproductive system

α-Zearalenol

incidence: 2/74*, sa. const.: people of Poland (females), contamination: natural, conc. range: 5 ng/ml, country: Poland⁴³², *showed neoplastic lesions in reproductive system see also Human plasma and Human serum

Human brain may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 7/18*, sa. const.: people of Nigeria (children: 4 males and 3 females af), contamination: natural, conc. range: 22–1,785 pg/g, Ø conc.: 539.14 pg/g, country: Nigeria/UK²⁸⁵, *dying of kwashiorkor incidence: 6/19*, sa. const.: people of Nigeria (children: 4 males and 2 females af), contamination: natural, conc. range: 27–831 pg/g, Ø conc.: 367.83 pg/g, country: Nigeria/UK²⁸⁵, *dying from miscellaneous diseases

Aflatoxin B,

incidence: 13/18*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr**, country: USA/Thailand¹¹¹, *EFDV ca., **sa. showed a blue fluorescent spot similar to that of AFB¹ incidence: 7/13*, sa. const.: people of Thailand (children and 2 adolescents), contamination: natural, conc. range: tr**, country: USA/Thailand¹¹, *dying from causes other than EFDV **, sa. showed a blue fluorescent spot similar to that of AFB¹

incidence: 4/18*, sa. const.: people of Nigeria (children: 3 males and 1 female af.), contamination: natural, conc. range: 1,233–3,913 pg/g, Ø conc.: 2,699.75 pg/g, country: Nigeria/UK²⁸⁵, *dying of kwashiorkor incidence: 1/19*, sa. const.: people of Nigeria (children: 1 female af), contamination: natural, conc.: 12,423 pg/g, country: Nigeria/UK²⁸⁵, *dying from miscellaneous diseases

AFLATOXIN B,

incidence: 1/18*, sa. const.: people of Thailand (children), contamination: natural, conc.: tr**, country: USA/Thailand¹⁰, *EFDV ca., **1 of the sa. showed a blue fluorescent spot similar to that of AFB₂ incidence: 1/13*, sa. const.: people of Thailand (children and 2 adolescents), contamination: natural, conc.: tr**,

Thailand (children and 2 adolescents), contamination: natural, conc.: tr**, country: USA/Thailand¹⁰, * dying from causes other than EFDV, **1 of the sa. showed a blue fluorescent spot similar to that of ${\rm AFB}_2$

incidence: 1/18*, sa. const.: people of Nigeria (children: 1 female af), contamination: natural, conc.: 21 pg/g, country: Nigeria/UK²⁸⁵, *dying of kwashiorkor incidence: 2/19*, sa. const.: people of Nigeria (children: 1 male and 1 female af), contamination: natural, conc. range: 4–113 pg/g, Ø conc.: 58.5 pg/g,

country: Nigeria/UK²⁸⁵, *dying from miscellaneous diseases

AFLATOXIN G,

incidence: 4/18*, sa. const.: people of Nigeria (children: 1 male and 3 females af), contamination: natural, conc. range: 395–107,700 pg/g, Ø conc.: 33,704.25 pg/g, country: Nigeria/UK²⁸⁵, *dying of kwashiorkor incidence: 5/19*, sa. const.: people of Nigeria (children: 3 males and 2 females af), contamination: natural, conc. range: 2,267–71,742 pg/g, Ø conc.: 25,755.4 pg/g, country: Nigeria/UK²⁸⁵, *dying from

AFLATOXIN G,

miscellaneous diseases

incidence: 2/18*, sa. const.: people of Nigeria (children: 2 males af), contamination: natural, conc. range: 193–212 pg/g, Ø conc.: 202.5 pg/g, country: Nigeria/UK²⁸⁵, *dying of kwashiorkor incidence: 2/19*, sa. const.: people of Nigeria (children: 2 males af), contamination: natural, conc. range: 8–13 pg/g, Ø conc.: 10.5 pg/g, country: Nigeria/UK²⁸⁵, *dying from miscellaneous diseases

Aflatoxin M_1

incidence: 2/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc. range: 1,229–13,314 pg/g tissue, Ø conc.: 7,271.5 pg/g tissue, country: Singapore/UK²⁵⁹ incidence: 1/18*, sa. const.: people of Nigeria (children: 1 female af), contamination: natural, conc.: 3,943 pg/g, country: Nigeria/UK²⁸⁵, *dying of kwashiorkor

incidence: 1/19*, sa. const.: people of Nigeria (children: 1 male af), contamination: natural, conc.: 5,092 pg/g, country: Nigeria/UK²⁸⁵, *dying from miscellaneous diseases

AFLATOXIN M₂ incidence: 3/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc. range: 348–5,244 pg/g tissue, Ø conc.: 2,337 pg/g tissue, country: Singapore/UK²⁵⁹

incidence: 3/18*, sa. const.: people of Nigeria (children: 2 males and 1 female af), contamination: natural, conc. range: 1,007–1,854 pg/g, Ø conc.: 1,503.33 pg/g, country: Nigeria/UK²⁸⁵, *dying of kwashiorkor incidence: 5/19*, sa. const.: people of Nigeria (children: 4 males and 1 female af), contamination: natural, conc. range: 717–5,290 pg/g, Ø conc.: 2,040.4 pg/g, country: Nigeria/UK²⁸⁵, * dying from miscellaneous diseases

Human breast may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 3/5*, sa. const.: people of the UK (1 male and 4 females (3 af)), contamination: natural, conc. range: 0.43–3.36 AFB₁-DNA adducts/10⁶ nucleotides, Ø conc.: 1.406 AFB₁-DNA adducts/10⁶ nucleotides, country: UK/Mexico⁵⁸, *non-tumor ca.

Human breast milk may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 6/800, sa. const.: human breast milk from women of The Sudan, Kenya, and Ghana, contamination: natural, conc. range: 14–270 ng/l, country: UK²⁴¹

incidence: 41/113, sa. const.: human breast milk from women of Sierra Leone, contamination: natural, conc. range: 0.005–50.9 ng/ml, country: Sierra Leone/UK³⁵⁴

AFLATOXIN B,

incidence: 41/800, human breast milk from women of The Sudan, Kenya, and Ghana contamination: natural, conc. range: 150–55,792 ng/l, country: UK²⁴¹ incidence: 20/113, sa. const.: human breast milk from women of Sierra Leone contamination: natural, conc. range:

breast milk from women of Sierra Leone contamination: natural, conc. range: 0.05–372 ng/ml, country: Sierra Leone/UK³⁵⁴

incidence: 1/231, sa. const.: human breast milk from women of Italy, contamination: natural, conc.: 11.4 ng/l, country: Italy³⁵⁶ incidence: 75/75, sa. const.: human breast milk from women of Turkey, contamination: natural, conc. range: 94–129 ng/l (17 sa), 130–149 ng/l (15 sa), 150–199 ng/l (25 sa), 200–300 ng/l (10 sa), >300–4,123.80 ng/l (8 sa), country: Turkey⁵⁸⁸

AFLATOXIN B,

incidence: 10/800, sa. const.: human breast milk from women of The Sudan, Kenya, and Ghana, contamination: natural, conc. range: 49–623 ng/l, country: UK²⁴¹

AFLATOXIN G,

incidence: 4/800, sa. const.: human breast milk from women of The Sudan, Kenya, and Ghana, contamination: natural, conc. range: 1,890–5,180 ng/l, country: UK²⁴¹

incidence: 3/5, sa. const.: human breast milk from women of The Gambia, contamination: natural, conc. range: 18–114 pg/ml, Ø conc.: 67.33 pg/ml, country: USA/France/UK²⁷³

incidence: 22/113, sa. const.: human breast milk from women of Sierra Leone, contamination: natural, conc. range: 0.005–139 ng/ml, country: Sierra Leone/UK³⁵⁴

AFLATOXIN G,

incidence: 3/800, sa. const.: human breast milk from women of The Sudan, Kenya, and Ghana contamination: natural, conc. range: 10–87 ng/l, country: UK²⁴¹

incidence: 25/113, sa. const.: human breast milk from women of Sierra Leone, contamination: natural, conc. range: 0.003–366 ng/ml, country: Sierra Leone/UK³⁵⁴

AFLATOXIN M_1 incidence: 129/140, sa. const.: human breast milk from women of UAE and other countries, contamination: natural, conc. range: \leq 3,400 pg/ml, country: UAE¹

incidence: 11/73, sa. const.: human breast milk from women of Australia, contamination: natural, conc. range: 0.028–1.031 ng/ml, country: Australia/UK⁴⁶ incidence: 5/11, sa. const.: human breast milk from women of Thailand, contamination: natural, conc. range: 0.039–1.736 ng/ml, country:

Australia/UK46

incidence: 8/61, sa. const.: human breast milk from women of Turkey, contamination: natural, conc. range: 5.10–6.90 ng/l, Ø conc.: 5.68 ng/l country: Turkey⁹⁹

incidence: 13/99, sa. const.: human breast milk from women of The Sudan, contamination: natural, conc. range: 5–64 pg/ml, Ø conc.: 19 pg/ml, country: UK/The Sudan¹³⁴

incidence: 4/82, sa. const.: human breast milk from women of Italy, contamination: natural, conc. range: 7 ng/l (1 sa), >10–50 ng/l (2 sa), 140 ng/l (1 sa), Ø conc.: 55.35 ng/l, country: Italy²³³

incidence: 121/800, sa. const.: human breast milk from women of The Sudan, Kenya, and Ghana, contamination: natural, conc. range: 5–1,379 ng/l, country: UK²⁴¹

incidence: 138/388, sa. const.: human breast milk from women of Egypt, contamination: natural, conc. range: 5.6– 5,131 pg/ml, country: Finland/ UK/Egypt²⁴⁴ incidence: 10/64, sa. const.: human breast milk from women of the UAE, contamination: natural, conc. range: 0.3–1.3 ng/ml, Ø conc.: 0.77 ng/ml, country: UAE/UK²⁴⁷

incidence: 15/15, sa. const.: human breast milk from women of the UAE, contamination: natural, conc. range: 7–23 pg/ml, country: UAE/UK²⁴⁷

incidence: 443/445, sa. const.: human breast milk from women of Arabic, European, and Asiatic countries, contamination: natural, conc. range: 0.002–3 ng/ml, country: UAE/UK²⁴⁸

incidence: 5/5, sa. const.: human breast milk from women of The Gambia, contamination: natural, conc. range: ≤1.4 pg/ml, country: USA/France/UK²⁷³

incidence: 157/160, sa. const.: human breast milk from women of Iran, contamination: natural, conc. range: 0.3– 26.7 ng/kg, country: Iran³³²

incidence: 2/10, sa. const.: human breast milk from women of Egypt, contamination: natural, conc. range: 0.5–5 ppb, Ø conc.: 2.75 ppb, country: Egypt³⁵¹

incidence: 66/120, sa. const.: human breast milk from women of Egypt, contamination: natural, conc. range: 0.2–2.09 ng/ml, Ø conc.: 0.35 ng/ml, country: Egypt³⁵²

incidence: 35/113, sa. const.: human breast milk from women of Sierra Leone, contamination: natural, conc. range: 0.2–99 ng/ml, country: Sierra Leone/UK³⁵⁴ incidence: 1/22, sa. const.: human breast milk from women of Brazil, contamination: natural, conc.: 0.02 ng/ml, country: Brazil³⁵⁵

incidence: 1/231, sa. const.: human breast milk from women of Italy, contamination: natural, conc.: 194 ng/l, country: Italy³⁵⁶ incidence: 245/443, sa. const.: human breast milk from women of Egypt, contamination: natural, conc. range:

4.2–889 pg/ml, country: Finland/UK/ Egypt⁵³³

incidence: 6/54, sa. const.: human breast milk from women of Zimbabwe, contamination: natural, Ø conc.: 3.6 pg/ml (mean value), country: Zimbabwe⁵⁶⁹ incidence: 75/75, sa. const.: human breast milk from women of Turkey, contamination: natural, conc. range: 60–79 ng/l (13 sa), 80–99 ng/l (24 sa), 100–299.99 ng/l (38 sa), country: Turkey⁵⁸⁸

AFLATOXIN M.

incidence: 11/99, sa. const.: human breast milk from women of The Sudan, contamination: natural, conc. range: 3–20 pg/ml, Ø conc.: 12.2 pg/ml, country: UK/The Sudan¹³⁴

incidence: 103/800, sa. const.: human breast milk from women of The Sudan, Kenya, and Ghana, contamination: natural, conc. range: 3–6,368 ng/l, country: UK²⁴¹

incidence: 70/113, sa. const.: human breast milk from women of Sierra Leone, contamination: natural, conc. range: 0.07–77.5 ng/ml, country: Sierra Leone/UK³⁵⁴

AFLATOXIN M₁ & M₂ incidence: 13/99, sa. const.: human breast milk from women of The Sudan, contamination: natural, conc. range: 3–84 pg/ml, Ø conc.: 34.7 pg/ml, country: UK/The Sudan¹³⁴

AFLATOXIN

incidence: 8/18, sa. const.: human breast milk from women of The Sudan and Ghana, contamination: natural, conc. range: 1–45 pg/ml, country: France/Zimbabwe²⁷¹ incidence: 6/54, sa. const.: human breast milk from women of Zimbabwe, contamination: natural, conc. range: 14.1–50.5 pg/ml, Ø conc.: 33.65 pg/ml, country: France/Zimbabwe²⁷¹

OCHRATOXIN A

incidence: 9/50, sa. const.: human breast milk from women of Italy, contamination: natural, conc. range: 1.7–6.6 ng/ml, Ø conc.: 4.19 ng/ml, country: Italy⁹⁷

incidence: 38/92, sa. const.: human breast milk from women of Hungary, contamination: natural, conc. range: 0.22–1 ng/ml (13 sa), 1–2 ng/ml (12 sa), 2–3 ng/ml (8 sa), 3–5 ng/ml (3 sa), 5 to \leq 7.63 ng/ml (2 sa), country: Hungary¹⁹²

incidence: 61/82, sa. const.: human breast milk from women of Italy, contamination: natural, conc. range: 5–10 ng/l (28 sa), >10–50 ng/l (27 sa), >50–405 ng/l (6 sa), Ø conc.: 30.43 ng/l, country: Italy²³³

incidence: 74/85, sa. const.: human breast milk from women of Italy, contamination: natural, conc. range: 0.02 ng/ml (26 sa), 0.1 ng/ml (34 sa), 0.5 ng/ml (7 sa), >1 ng/ml (7 sa), country: Italy²⁶⁸

incidence: 2/100, sa. const.: human breast milk from women of Australia, contamination: natural, conc. range: 3–3.6 ng/ml, Ø conc.: 3.3 ng/ml, country: Australia²⁹⁰

incidence: 4/36, sa. const.: human breast milk from women of Germany, contamination: natural, conc. range: $0.017-0.030~\mu g/kg$, \varnothing conc.: $0.0238~\mu g/kg$, country: Germany²⁹¹

incidence: 23/40, sa. const.: human breast milk from women of Sweden, contamination: natural, conc. range: 10–40 ng/l, country: Sweden²⁹⁴

incidence: 4/36, sa. const.: human breast milk from women of Germany, contamination: natural, conc. range: 0.017–0.030 ng/ml, country: Germany³⁰¹

incidence: 17/80, sa. const.: human breast milk from women of Norway, contamination: natural, conc. range: 10–182 ng/l, Ø conc.: 30 ng/l, country: Norway³⁴⁶

incidence: 38/115, sa. const.: human breast milk from women of Norway,

contamination: natural, conc. range: 10-130 ng/l, Ø conc.: 37.56 ng/l, country: Norway³⁴⁷

incidence: 4/40, sa. const.: human breast milk from of from Switzerland, contamination: natural, conc. range: 5–14 pg/g, country: Switzerland³⁴⁹ incidence: 3/10, sa. const.: human breast milk from women of Egypt, contamination: natural, conc. range: 3–15 ppb, Ø conc.: 8.87 ppb, country: Egypt³⁵¹

incidence: 43/120, sa. const.: human breast milk from women of Egypt, contamination: natural, conc. range: 5.07–45.01 ng/ml, Ø conc.: 21.06 ng/ml, country: Egypt³⁵²

incidence: 40/113, sa. const.: human breast milk from women of Sierra Leone. contamination: natural, conc. range: 0.2-337 ng/ml, country: Sierra Leone/UK354 incidence: 2/28, sa. const.: human breast milk from women of Brazil, contamination: natural, conc. range: 0.01-0.02 ng/ml, Ø conc.: 0.015 ng/ml, country: Brazil355 incidence: 198/231, sa. const.: human breast milk from women of Italy, contamination: natural, conc. range: ≤57 ng/l, country: Italy³⁵⁶ incidence: 5/13, sa. const.: human breast milk from women of Poland, contamination: natural, conc. range: 0.0053-0.017 ng/ml, Ø conc.: 0.01026 ng/ml country: Poland446

incidence: 36/50, sa. const.: human breast milk from women of Egypt, contamination: natural, Ø conc.: 1.89 ng/ml*, country: Egypt⁴⁴⁹, *for all sa. incidence: 23/76, sa. const.: human breast milk from women of Slovakia, contamination: natural, conc. range: LOQ (14 sa), 2.30–60.30 ng/l (9 sa), Ø conc.: 19.79 ng/ml, country: Slovakia⁴⁵⁰ incidence: 96/142, sa. const.: human breast milk from women of Italy, contamination:

natural, conc. range: LOD/LOQ-0.9 µg/l

(93 sa), 1.0-2.35 μ g/l (3 sa), country: EU⁵⁰⁸

incidence: 75/75, sa. const.: human breast milk from women of Turkey, contamination: natural, conc. range: 600–1,499 ng/l (28 sa), 1,500–2,499 ng/l (31 sa), 2,500–2,999 ng/l (3 sa), 3,000–3,499 ng/l (3 sa), 3,500–13,111.30 ng/l (10 sa), country: Turkey⁶³⁶

Human cervix may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: 3/5*, sa. const.: people of the UK (females), contamination: natural, conc. range: 0.48–4.9 AFB₁-DNA adducts/10⁶ nucleotides, Ø conc.: 2.69 AFB₁-DNA adducts/10⁶ nucleotides, country: UK/ Mexico⁵⁸, *non-tumor ca.

Human colon may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 17/32* **, sa. const.: people of the UK (10 males (6 af), 12 females (6 af), and 10 of unknown sex (5 af), contamination: natural, conc. range: 0.04–56.96 AFB₁-DNA adducts/10⁶ nucleotides, country: UK/Mexico⁵⁸, *sa. of colon and sigmoid, right, transverse, and left colon, **partly tumor ca. (for detailed information please see the article)

Human Colostrum see Human breast milk

Human endometrium may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: 25/49, sa. const.: people of Poland (females), contamination: natural, conc. range: 47.8 ng/ml (mean value, 3 sa*), 167 ng/ml (mean value, 22 sa**), country: Poland⁴¹², *endometrial hyperplasia, **endometrial adenocarcinoma

Human feces may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 2/40, sa. const.: people of Ghana (29 males and 11 females), age: 30–73 years, contamination: natural, Ø conc.: 47.9 pg/g (wet weight), country: Ghana⁴⁶¹

AFLATOXIN G,

incidence: 34/40, sa. const.: people of Ghana (29 males and 11 females), age: 30–73 years, contamination: natural, Ø conc.: 129.6 pg/g (wet weight), country: Ghana⁴⁶¹

AFLATOXIN M,

incidence: 3/40, sa. const.: people of Ghana (29 males and 11 females), age: 30–73 years, contamination: natural, Ø conc.: 58.7 pg/g (wet weight), country: Ghana⁴⁶¹

AFLATOXIN Q,

incidence: 5/40, sa. const.: people of Ghana (29 males and 11 females), age: 30–73 years, contamination: natural, Ø conc.: 101.3 pg/g (wet weight), country: Ghana⁴⁶¹

Aflatoxin

incidence: 11/20, sa. const.: people of Egypt (12 males and 8 females (11 af) of Egypt, age: 20–40 years, contamination: natural, conc. range: $1.8–6~\mu g/kg$, country: Australia/Finland²¹⁷

FUMONISIN B,

incidence: 7/20*, sa. const.: people of South Africa (school-children), age: 6–12 years, contamination: natural, conc. range: 6.0–19.56 mg/g, country: South Africa⁴⁶³, *rural sa. incidence: 2/23*, sa. const.: people of South Africa (adults), age: 12–60 years, contamination: natural, conc. range: 3.5–16.2 mg/g, Ø conc.: 9.85 mg/g,

Human funiculum may contain the following mycotoxins and/or their metabolites:

country: South Africa463, *urban sa.

OCHRATOXIN A

incidence: 9/40*, sa. const.: people of Italy (females), contamination: natural, conc. range: LOD/LOQ-0.9 μ g/l (6 sa), 1.0-1.9 μ g/l (2 sa), 9.4 μ g/l (1 sa), country: EU⁵⁰⁸, *pregnant women with (12 thereof 3 OTA-pos) and without (28 thereof 6 OTA-pos) pathologies

Human hair may contain the following mycotoxins and/or their metabolites:

Fumonisin B_1

incidence: 5/5, sa. const.: people of South Africa (composite bulk hair), contamination: natural, conc. range: tr-93.5 µg/kg, country: South Africa⁴³⁶

FUMONISIN B,

incidence: 4/5, sa. const.: people of South Africa (composite bulk hair), contamination: natural, conc. range: tr-23.5 µg/kg, country: South Africa⁴³⁶

FUMONISIN B₂

incidence: 2/5, sa. const.: people of South Africa (composite bulk hair), contamination: natural, conc. range: tr, country: South Africa⁴³⁶

Human heart may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 3/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc. range: 830–2,355 pg/g tissue, Ø conc.: 1,454.66 pg/g tissue, country: Singapore/UK²⁵⁹

AFLATOXIN B₂

incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc.: 19 pg/g tissue, country: Singapore/UK²⁵⁹

Human intestine may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 4/5*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr–81 µg/kg**, country: USA/ Thailand¹¹o, *EFDV ca., **contents of intestine

incidence: 3/9*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr** ***, country: USA/Thailand¹¹⁰, *dying from causes other than EFDV, **contents of intestine, ***sa. showed a blue fluorescent spot similar to that of AFB₁

AFLATOXIN B₂

incidence: 1/5*, sa. const.: people of Thailand (children), contamination: natural, conc.: 10 µg/kg**, country: USA/Thailand¹o, *EFDV ca., **in intestine contents

Human kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 11/14*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr **, country: USA/Thailand¹⁰, *EFDV ca., **sa. showed a blue fluorescent spot similar to that of AFB₁

incidence: 6/11*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr**, country: USA/Thailand¹⁰, *dying from causes other than EFDV, ** showed a blue fluorescent spot similar to that of AFB,

incidence: 2/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc. range: 200–336 pg/g tissue, Ø conc.: 268 pg/g tissue, country: Singapore/UK²⁵⁹

AFLATOXIN B,

incidence: 1/11*, sa. const.: people of Thailand (children), contamination: natural, conc.: tr**, country: USA/Thailand¹o, *dying from causes other than EFDV, **a blue fluorescent spot similar to that of AFB,

AFLATOXIN M,

incidence: 3/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc. range: 877–18,521 pg/g tissue, Ø conc.: 6,911.33 pg/g tissue, country: Singapore/UK²⁵⁹

AFLATOXIN M.

incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc.: 445 pg/g tissue, country: Singapore/UK²⁵⁹

OCHRATOXIN A

incidence: 3/46, sa. const.: people of Germany, contamination: natural, conc. range: 0.10–0.30 μg/kg, Ø conc.: 0.20 μg/kg, country: Germany²⁹¹

Human liver may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 5/19*, sa. const.: people of Liberia, Nigeria, and South Africa (children), contamination: natural, conc.: 188 pg/g (1 kwashiorkor ca), 108–8,500 pg/g (4 marasmic kwashiorkor ca) country: UK¹¹, *10 kwashiorkor ca., 6 marasmic kwashiorkor ca., and 3 marasmus ca. incidence: 2/16*, sa. const.: people of The

incidence: 2/16*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 1,004–4,370 pg/g, Ø conc.: 2,687 pg/g, country: The Sudan/UK³², *kwashiorkor ca.

incidence: 1/13*, sa. const.: people of The Sudan (children), contamination: natural,

conc.: 68,936 pg/g, country: The Sudan/UK³², *miscellaneous liver disease ca. incidence: 2/22*, sa. const.: people of Ghana (children), contamination: natural, conc. range: 12–99 pg/g, Ø conc.: 55.5 pg/g, country: Ghana/UK⁶¹, *kwashiorkor ca.

incidence: 2/15, sa. const.: people of Kenya (patients: 9 males (2 af*) and 6 females), age: 0.6–52 years?, contamination: natural, conc. range: 280–2,157 pg/g, Ø conc.: 1,218.5 pg/g, country: Kenya/UK⁴⁶⁶, *additionally cirrhosis or marasmic kwashiorkor

AFLATOXIN B,

incidence: 1/1, sa. const.: person of the USA (male), contamination: natural, conc.: 520 ng/g wet liver, country: USA⁴ incidence: 1/20*, sa. const.: people of the USA (adults and children: males and females (1 af)), contamination: natural, conc.: 22.5 µg/kg, country: USA⁸, *8 Reye-syndrome ca. thereof 1 AFB₁-pos., 2 ca. of acute encephalopathy and 10 ca. without liver disease

incidence: 17/19*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr–93 μg/kg, country: USA/Thailand¹⁰, *EFDV ca. incidence: 8/13*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr, country: USA/Thailand¹⁰, *dying from causes other than EFDV

incidence: 9/19*, sa. const.: people of Liberia, Nigeria, and South Africa (children), contamination: natural, conc. range: 391–8,350 pg/g (9 kwashiorkor ca), country: UK¹¹, *10 kwashiorkor ca., 6 marasmic kwashiorkor ca., and 3 marasmus ca.

incidence: 16/37*, sa. const.: people of the USA (patients), contamination: natural, conc. range: <1-62 ng/g, country: USA¹⁹, *15 Reye's-syndrome ca. thereof 11 AFB₁-pos.

incidence: 5/15, sa. const.: people of Czechoslovakia (3 males and

2 females af*), contamination: natural, conc. range: 0.36–5.2 μg/kg, Ø conc.: 3.312 μg/kg, country: France/ Czechoslovakia²⁸, *liver cancer ca.

incidence: 2/16*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 32,174–33,206 pg/g, Ø conc.: 32,690 pg/g, country: The Sudan/UK³², *kwashiorkor ca

incidence: 2/2, sa. const.: people of New Zealand (children), contamination: natural, conc. range: 5-50 μg/kg wet weight (estimates), country: New Zealand35 incidence: 2/8*, sa. const.: people of Taiwan (1 male and 1 female af), contamination: natural, conc. range: 1.2–1.7 µmol/mol DNA**, Ø conc.: 1.45 µmol/mol DNA**, country: USA/Taiwan, Republic of China49, *histology = adjacent-normal tissue, **AFB,-FAPy adducts incidence: 7*/9, sa. const.: people of Taiwan (6 males and 1 female af), contamination: natural, conc. range: 1.2-3.5 µmol/mol DNA**, Ø conc.: 2.23 µmol/mol DNA**, country: USA/Taiwan, Republic of China49, *histology = tumor tissue/focal nodule, **AFB,-FAPy adducts

incidence: 10/23*, sa. const.: people of the UK, Africa, and Southeast Asia (4 males (1 af), 11 females (6 af), and 8 of unknown sex (3 af)), contamination: natural, conc. range: 0.23–19.8 AFB₁-DNA adducts/10⁶ nucleotides, country: UK/ Mexico⁵⁸, *non-tumor ca. and unknown incidence: 20/22*, sa. const.: people of Ghana (children), contamination: natural, conc. range: 62–4,409 pg/g, Ø conc.: 1,009.5 pg/g, country: Ghana/UK⁶¹, *kwashiorkor ca.

incidence: 6/7*, sa. const.: people of the USA (children), contamination: natural, conc. range: 2.23–17.33 ng/g, Ø conc.: 9.18 ng/ml, country: USA⁶⁵, *Reye's-syndrome ca.

incidence: 6/100, sa. const.: people of France (males (4 af) and females (2 af)),

contamination: natural, conc. range: $tr-20~\mu g/kg$, country: France/Senegal¹²² incidence: 7/8, sa. const.: people of Czechoslovakia (6 males and 1 female child af), contamination: natural, conc. range: 0.63–3.51 pmol AFB₁/mg DNA, Ø conc.: 1.72 pmol AFB₁/mg DNA, country: UK/Czechoslovakia¹⁵³

incidence: 6/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc. range: 532–3,176 pg/g tissue, Ø conc.: 1,309.83 pg/g tissue, country: Singapore/UK²⁵⁹

incidence: 2/15, sa. const.: people of Kenya (patients: 9 males and 6 females (2 af*)), age: 0.6–52 years?, contamination: natural, conc. range: 2,232–92,978 pg/g, Ø conc.: 47,605 pg/g, country: Kenya/UK⁴⁶⁶, *additionally HCC

incidence: 3?/23*, sa. const.: people of Nigeria, contamination: natural, conc. range: $3-15 \mu g/kg$, Ø conc.: $7 \mu g/kg$, country: Nigeria⁵²¹, *5 HCC ca. thereof AFB₁-3 to 4 pos.

incidence: 2/2, sa. const.: people of Kenya (children), contamination: natural, conc. range: 39–89 ppb, Ø conc.: 64 ppb, country: Kenya⁵⁴⁵

incidence: 6/100, sa. const.: people of France (55 males and 45 females), age: 24–84 years, contamination: natural, conc. range: tr–20 μg/kg, country: France⁵⁷⁰ incidence: 35/50*, sa. const.: people of Taiwan (42 males and 8 females), age: 41–84 years, contamination: natural, conc.: pr**, country: Taiwan, Republic of China/USA⁶⁰³, *HCC patients, **AFB,-DNA adducts

AFLATOXIN B₂ incidence: 2/19*, sa. const.: people of Thailand (children), contamination: natural, conc. range: 6–11 μg/kg, Ø conc.: 8.5 μg/kg, country: USA/Thailand¹⁰,

*EFDV ca.

incidence: 1/16*, sa. const.: people of The Sudan (children), contamination: natural, conc.: 1,786 pg/g, country: The Sudan/ UK³², *kwashiorkor ca.

incidence: 3/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc. range: 43–121 pg/g tissue, Ø conc.: 69 pg/g tissue, country: Singapore/UK²⁵⁹

incidence: 1/15, sa. const.: people of Kenya (patients: 9 males and 6 females (1 af*)), age: 0.6–52 years?, contamination: natural, conc.: 13 pg/g, country: Kenya/UK⁴⁶⁶, *additionally HCC

AFLATOXIN G,

incidence: 1/13*, sa. const.: people of The Sudan (children), contamination: natural, conc.: 154,817 pg/g, country: The Sudan/UK³², *miscellaneous liver disease ca.

incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc.: 9,116 pg/g tissue, country: Singapore/UK²⁵⁹

incidence: 2/154*, sa. const.: people of Singapore (121 males and 33 females), contamination: natural, conc. range: 22–27 pg/g, Ø conc.: 24.5 pg/g, country: Singapore⁴⁴⁴, *normal subjects

incidence: 2/15, sa. const.: people of Kenya (patients: 9 males (1 af*) and 6 females (1 af*)), age: 0.6–52 years?, contamination: natural, conc. range: 128–3,186 pg/g, Ø conc.: 1,657 pg/g, country: Kenya/UK⁴⁶⁶, *additionally HCC or marasmic kwashiorkor

AFLATOXIN G.

incidence: 2/13*, sa. const.: people of The Sudan (children), contamination: natural, conc.: 158–274 pg/g, Ø conc.: 216 pg/g, country: The Sudan/UK³², *miscellaneous liver disease ca

incidence: 1/15, sa. const.: people of Kenya (patients: 9 males (1 af*) and 6 females), age: 0.6–52 years?, contamination: natural, conc.: 13 pg/g, country: Kenya/UK⁴⁶⁶, *additionally peritonitis

incidence: 1/19*, sa. const.: people of

AFLATOXIN M,

Liberia, Nigeria, and South Africa (children), contamination: natural, conc.: 15 pg/g (1 marasmic kwashiorkor ca), country: UK¹¹,*10 kwashiorkor ca., 6 marasmic kwashiorkor ca., and 3 marasmus ca. incidence: 5/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc. range: 284–14,537 pg/g tissue, Ø conc.: 4,900.4 pg/g tissue, country: Singapore/UK²⁵⁹

incidence: 8/154*, sa. const.: people of Singapore (121 males and 33 females, contamination: natural, conc. range: 22–142 pg/g, Ø conc.: 54.7 pg/g, country: Singapore⁴⁴⁴, *normal subjects

incidence: 3/15, sa. const.: people of Kenya (patients: 9 males (3 af*) and 6 females), age: 0.6–52 years?, contamination: natural, conc. range: 423–15,909 pg/g, Ø conc.: 5,916.66 pg/g, country: Kenya/UK⁴⁶⁶, *additionally cirrhosis, stomach cancer or HCC

AFLATOXIN M.

incidence: 2/13*, sa. const.: people of The Sudan (children), contamination: natural, conc.: 1,474–3,158 pg/g, Ø conc.: 2,316 pg/g, country: The Sudan/UK³², *miscellaneous liver disease ca.

AFLATOXIN

incidence: 1/13*, sa. const.: people of the USA (children), contamination: natural, conc.: 0.04 ppb?, country: USA⁶², *thereof 12 Reye's-syndrome ca.

Human lung may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 4/20*, sa. const.: people of Nigeria (children), contamination: natural, conc. range: 20–280 pg/g, Ø conc.: 111 pg/g, country: Nigeria/UK²²⁴, *kwashiorkor ca. incidence: 3/20*, sa. const.: people of Nigeria (children), contamination: natural, conc. range: 7–85 pg/g, Ø conc.: 52 pg/g, country: Nigeria/UK²²⁴, *miscellaneous disease ca. incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children

2.5–11 years, contamination: natural, conc.:

27 pg/g tissue, country: Singapore/UK²⁵⁹

AFLATOXIN B,

incidence: 3/6, sa. const.: people of Czechoslovakia (males and females af), contamination: natural, conc. range: 10–54 ng/g, Ø conc.: 28 ng/g, country: Czechoslovakia¹⁸⁶

incidence: 5/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc. range: 38–3,465 pg/g tissue, Ø conc.: 1,103 pg/g tissue, country: Singapore/UK²⁵⁹ incidence: 1/1, sa. const.: person of Japan (male), age: 41 years, contamination: natural, conc.: 0.635 μg/g dry weight, country: Japan⁴⁵⁹

AFLATOXIN B,

incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc.: 48 pg/g tissue, country: Singapore/UK²⁵⁹ incidence: 1/1, sa. const.: person of Japan (male), age: 41 years, contamination: natural, conc.: 0.0273 µg/g dry weight, country: Japan⁴⁵⁹

AFLATOXIN G₁ incidence: 3/20*, sa. const.: people of Nigeria (children), contamination:

natural, conc. range: 3,414–52,099 pg/g, Ø conc.: 31,647.66 pg/g, country Nigeria/ UK²²⁴, *kwashiorkor ca. incidence: 6/20*, sa. const.: people of Nigeria (children), contamination: natural, conc. range: 132–84,807 pg/g, Ø conc.: 20,400 pg/g, country: Nigeria/ UK²²⁴, *miscellaneous disease ca.

Aflatoxin $\rm G_2$ incidence: 3/20*, sa. const.: people of Nigeria (children), contamination:

natural, conc. range: 94–550 pg/g, Ø conc.: 334.66 pg/g, country: Nigeria/UK²²⁴, *kwashiorkor ca.

Nigeria (children), contamination: natural, conc. range: 8–1,837 pg/g, Ø conc.: 636 pg/g, country: Nigeria/UK²²⁴, *miscellaneous disease ca.

incidence: 3/20*, sa. const.: people of

AFLATOXIN M,

incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc.: 1,289 pg/g tissue, country: Singapore/UK²⁵⁹

incidence: 1/1, sa. const.: person of Japan (male), age: 41 years, contamination: natural, conc.: $0.0525 \mu g/g$ dry weight, country: Japan⁴⁵⁹

AFLATOXIN M,

incidence: 11/20*, sa. const.: people of Nigeria (children), contamination: natural, conc. range: 210–2,723 pg/g, Ø conc.: 894.27 pg/g, country: Nigeria/ UK²²⁴, *kwashiorkor ca. incidence: 10/20*, sa. const.: people of Nigeria (children), contamination: natural, conc. range: 100–3,058 pg/g, Ø conc.: 1,230.9 pg/g, country: Nigeria/ UK²²⁴, *miscellaneous disease ca. incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc.: 1,595 pg/g

tissue, country: Singapore/UK²⁵⁹

AFLATOXINS

incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc.: 27 pg/g tissue*, country: Singapore/UK²⁵⁹, *AFB₁, AFB₂, AFG₁, AFM₁, AFM₂, and AFL

Human Maternal Milk see Human breast milk

Human Milk see Human breast milk

Human pancreas may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: 5/12*, sa. const.: people of the UK (3 males (2 af), 8 females (3 af), and 1 of unknown sex), contamination: natural, conc. range: 0.21–0.47 AFB₁-DNA adducts/10⁶ nucleotides, country: UK/Mexico⁵⁸, *non-tumor ca.

Human placenta may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 69/120, sa. const.: people of Taiwan (females), contamination: natural, conc. range: 0.6–6.3 μmol/mol DNA*, Ø conc.: 2.34 μmol/mol DNA*, country: Taiwan, Republic of China¹⁵⁶, *AFB₁-DNA adducts

OCHRATOXIN A

incidence: $11/40^*$, sa. const.: people of Italy (females), contamination: natural, conc. range: LOD/LOQ-0.9 µg/l (2 sa), 1.0-1.9 µg/l (1 sa), 2.0-5.0 µg/l (3 sa), ≤ 10.57 µg/l (5 sa), country: EU⁵⁰⁸, * pregnant women with (12 thereof 4 OTA-pos) and without (28 thereof 7 OTA-pos) pathologies

Human plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 5/62*, sa. const.: people of Turkey (33 male and 29 female humans: healthy), contamination: natural, conc.: 101.2 pg/ml (mean value), country: Turkey⁵⁸², *control incidence: 50/203*, sa. const.: people of Turkey (119 male and 84 female patients), contamination: natural, conc.: 36.1 pg/ml (mean value), country: Turkey⁵⁸², *93 chronic hepatitis ca., 64 cirrhosis ca., and 46 HCC ca.

AFLATOXIN B,

AFLATOXIN G,

incidence: 3/62*, sa. const.: people of Turkey (33 male and 29 female humans: healthy), contamination: natural, conc.: 18.8 pg/ml (mean value), country: Turkey⁵⁸², *control incidence: 35/203*, sa. const.: people of Turkey (119 male and 84 female patients), contamination: natural, conc.: 28.4 pg/ml (mean value), country: Turkey⁵⁸², *93 chronic hepatitis ca., 64 cirrhosis ca., and 46 HCC ca.

incidence: 6/62*, sa. const.: people of Turkey (33 male and 29 female humans: healthy), contamination: natural, conc.: 32.5 pg/ml (mean value), country: Turkey⁵⁸², *control

incidence: 46/203*, sa. const.: people of Turkey (119 male and 84 female patients), contamination: natural, conc.: 92.0 pg/ml (mean value), country: Turkey⁵⁸², *93 chronic hepatitis ca., 64 cirrhosis ca., and 46 HCC ca.

AFLATOXIN G,

incidence: 2/62*, sa. const.: people of Turkey (33 male and 29 female humans: healthy), contamination: natural, conc.: 10.4 pg/ml (mean value), country: Turkey⁵⁸², *control incidence: 37/203*, sa. const.: people of Turkey (119 male and 84 female patients),

contamination: natural, conc.: 18.2 pg/ml (mean value), country: Turkey⁵⁸², *93 chronic hepatitis ca., 64 cirrhosis ca., and 46 HCC ca.

OCHRATOXIN A

incidence: 148/249, sa. const.: people of Croatia (males and females), contamination: natural, conc. range: 0.2–1.0 ng/ml (135 sa), >1.0–15.9 ng/ml (13 sa), country: Croatia¹⁸⁷

incidence: 320/734, sa. const.: people of Croatia (males and females), contamination: natural, conc. range: 0.2–1.0 ng/ml (288 sa), >1.0 ng/ml (32 sa), country: Croatia¹⁸⁹

incidence: 8/8, sa. const.: people of Germany/Switzerland? (4 males and 4 females, af.), age: 26–57 years, contamination: natural, conc. range: 0.2–0.88 ng/ml, country: Germany/Switzerland¹⁹⁷

incidence: 185/309*, sa. const.: people of Morocco (213 males and 96 females), age: 18–60 years, contamination: natural, conc. range: 0.08–6.59 ng/ml, Ø conc.: 0.29 ng/ml, country: Morocco/France²¹⁹, *healthy volunteers

incidence: 40/75*, sa. const.: people of Spain (44 males and 31 females), age: 27–80 years, contamination: natural, conc. range: ≤4.0 ng/ml, country: Spain/France²²¹, *healthy donors incidence: 56/72*, sa. const.: people of Spain (40 males and 32 females), age: 27–80 years, contamination: natural, conc. range: ≤11.70 ng/ml, country: Spain/France²²¹, *nephropathy patients

incidence: 88/198, sa. const.: people of Croatia (healthy inhabitants of Zagreb), contamination: natural, conc. range: >0.2–1.3 ng/ml, country: Croatia²²⁶

incidence: 156/184, sa. const.: people of Japan (130 males (114 af) and 54 females (42 af)), contamination: natural, conc. range: 4–278 pg/ml, Ø conc.: 68 pg/ml, country: Japan²³⁵

incidence: 50/50*, sa. const.: people of UK, contamination: natural, conc. range: 0.4–3.11 ng/ml, country: UK²³⁶, *32 volunteers (normal diet?), 11 vegetarians, 7 consumed ethnic diet incidence: 38/297, sa. const.: people of Sweden, contamination: natural, conc. range: 0.3–0.8 ng/ml (33 sa), >0.8 to ≤6.7 ng/ml (5 sa), country: Sweden²⁹³ incidence: 144/144, sa. const.: people of Canada (72 males and 72 females), age for 134 donors: 19–68 years, contamination: natural, conc. range: 0.29–2.37 ng/ml, Ø conc.: 0.88 ng/ml, country: Canada³⁴⁵ incidence: 832/250 sa. const.: people of

incidence: 83?/250, sa. const.: people of Lebanon (164 males (51 af) and 86 females (31 af)), age: 16 to ≥60 years, contamination: natural, conc. range: 0.1–0.87 ng/ml, Ø conc.: 0.17 ng/ml, country: Lebanon/France⁴²⁹

incidence: 91/142, sa. const.: people from Argentina (male inhabitants of Mar del Plata), Ø age: 37 years, Ø weight: 80 kg, contamination: natural, conc. range: LOD to <LOQ (1 sa), LOQ-0.2 ng/ml (39 sa), >0.2-1.0 ng/ml (39 sa), >1.0-10.0 ng/ml (12 sa), country: Argentina/Sweden⁵⁰² incidence: 36/57, sa. const.: people from Argentina (female inhabitants of Mar del Plata), Ø age: 40 years, Ø weight: 70 kg (females), contamination: natural, conc. range: LOQ-0.2 ng/ml (17 sa), >0.2-1.0 ng/ml (13 sa), >1.0-10.0 ng/ml (5 sa), 47.6 ng/ml (1 sa), country: Argentina/Sweden502 incidence: 122/193, sa. const.: people from Argentina (male inhabitants of General Rodriguez), Ø age: 35 years, Ø weight: 80 kg, contamination: natural, conc. range: LOQ-0.2 ng/ml (16 sa), >0.2-1.0 ng/ml (61 sa), >1.0-10.0 ng/ml (41 sa), >10.0-74.8 ng/ml (4 sa), country: Argentina/Sweden502 incidence: 25/42, sa. const.: people from Argentina (female inhabitants of General

Rodriguez), Ø age: 36 years,

Ø weight: 68 kg, contamination: natural, conc. range: LOQ–0.2 ng/ml (9 sa), >0.2–1.0 ng/ml (10 sa), >1.0–10.0 ng/ml (6 sa), country: Argentina/Sweden⁵⁰² incidence: 202/202, sa. const.: people of The Netherlands (males and females), Ø age: 40 years, contamination: natural, conc. range: LOD/LOQ to ≤0.78 μ g/l, country: EU⁵⁰⁸

incidence: 168/168, sa. const.: people of Spain (88 males and 80 females), contamination: natural, conc. range: LOD/LOQ-0.9 μ g/l (90 sa), 1.0-1.9 μ g/l (50 sa), 2.0-5.0 μ g/l (27 sa), 5.58 μ g/l (1 sa), country: EU⁵⁰⁸

incidence: 191/191, sa. const.: people of Sweden (133 males and 58 females), Ø age: 44 years, contamination: natural, conc. range: LOD/LOQ-0.9 µg/l (189 sa), $1.0-1.23 \,\mu g/l$ (2 sa), country: EU⁵⁰⁸ incidence: 7/7*, sa. const.: people of the UK (males and females), age: 18-55 years, contamination: natural, conc. range: LOD/LOQ-2.15? µg/l, country: EU⁵⁰⁸, *eating ethnic diet incidence: 32/32*, sa. const.: people of the UK (males and females), age: 18-55 years, contamination: natural, conc. range: LOD/LOQ-3.11? μg/l, country: EU⁵⁰⁸, *eating normal diet incidence: 11/11*, sa. const.: people of the UK (males and females), age: 18-55 years, contamination: natural, conc. range: LOD/LOQ-2.46? µg/l, country: EU⁵⁰⁸, *vegetarians

incidence: 168/168, sa. const.: people of Spain (88 males and 80 females), age: 18–63 years, contamination: natural, conc. range: 0.120–5.580 ng/ml, Ø conc.: 1.192 ng/ml, country: Spain⁵⁴²

incidence: 130/132, sa. const.: people of Spain (male inhabitants of the province of Lleida), age: 18–45 years and more, contamination: natural, conc. range: 0.12–8.03 ng/ml, country: Spain⁵⁸⁴ incidence: 145/147, sa. const.: people of Spain (females inhabitants of the

province of Lleida), age: 18–45 years and more, contamination: natural, conc. range: 0.11–8.68 ng/ml, country: Spain⁵⁸⁴ see also Human blood and Human serum

Human rectum may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 5/9*, sa. const.: people of the UK (4 males (tumor ca) and 5 females (5 af)), contamination: natural, conc. range: 0.26–10.26 AFB₁-DNA adducts/10⁶ nucleotides, country: UK/Mexico⁵⁸

Human renal tissue may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A incidence: 3/14*, sa. const.: people of Egypt (males and females), age: 38–70 years, contamination: natural, conc. range: 0.51–1.28 ng/g, country: Egypt/France²²⁷, *with urothelial tumors

Human semen may contain the following mycotoxins and/or their metabolites:

AFLATOXIN G₁ incidence: 20/50, sa. const.: people of Nigeria (males: infertile), age: adult, contamination: natural, conc. range: 0.50–2.80 µg/ml, country: Nigeria⁴⁴³ incidence: 4/50, sa. const.: people of Nigeria (males: fertile), age: adult, contamination: natural, conc. range: 0.30–0.50 µg/ml, country: Nigeria⁴⁴³

Aflatoxin $\rm M_1$ incidence: 20/50, sa. const.: people of Nigeria (males: infertile), age: adult, contamination: natural, conc. range: 1.0–3.20 µg/ml, country: Nigeria⁴⁴³ incidence: 4/50, sa. const.: people of Nigeria (males: fertile), age: adult, contamination: natural, conc. range: 0.43–0.48 µg/ml, country: Nigeria⁴⁴³

AFLATOXIN M,

incidence: 20/50, sa. const.: people of Nigeria (males: infertile), age: adult, contamination: natural, conc. range: 0.90–3.60 µg/ml, country: Nigeria⁴⁴³ incidence: 4/50, sa. const.: people of Nigeria (males: fertile), age: adult, contamination: natural, conc. range: 0.45–0.62 µg/ml, country: Nigeria⁴⁴³

Human serum may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 1/16*, sa. const.: people of The Sudan (children), contamination: natural, conc.: 930 pg/ml, country: The Sudan/UK³², * kwashiorkor ca.

incidence: 44/44*, sa. const.: people of The Sudan (male and female children), no contamination with AFL, conc.: nd, country: UK/The Sudan36, *control incidence: 1/57*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: pr, country: UK/The Sudan³⁶, *marasmus ca. incidence: 4/32*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: pr, country: UK/The Sudan³⁶, *marasmic kwashiorkor ca. incidence: 6/44*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: pr, country: UK/The Sudan³⁶, *kwashiorkor ca.

incidence: 67/67*, sa. const.: people of Nigeria (60 infants and 7 of their mothers), no contamination with AFL, conc.: nd, country: Nigeria/UK¹⁹⁵, *control (non-jaundiced?!) incidence: 14/340*, sa. const.: people of Nigeria (270 infants and 70 of their mothers), contamination: natural, conc. range: 26–750 ng/l, country: Nigeria/ UK¹⁹⁵, *jaundiced

incidence: 15/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 2–20 ng/100 ml, Ø conc.: 9.27 ng/100ml, country: Egypt⁴⁴⁷, *kwashiorkor ca.

incidence: 3/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc. range: 2–14 ng/100 ml, Ø conc.: 6.33 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

incidence: 10/36*, sa. const.: people of Sierra Leone (children: under 5), contamination: natural, conc. range: 0.03–0.9 ng/ml, country: Sierra Leone⁵⁴⁰, *14 controls, 3 kwashiorkors, 9 underweights, 2 marasmics, and 8 "unspecified" (for detailed information please see the article)

AFLATOXIN B,

incidence: 356/357*, sa. const.: people of The Gambia (188 male and 169 female inhabitants of periurban areas), Ø age: 24 years, contamination: natural, conc. range: 14.9-33.4 pg AFB₁-lysine eq/mg albumin (mean values), country: UK/France/The Gambia/USA13, *thereof 181 HBV ca. but no predominant contamination, for detailed information please see the article incidence: 356/357*, sa. const.: people of The Gambia (188 male and 169 female inhabitants of rural areas), Ø age: 24 years, contamination: natural, conc. range: 28.5-42.8 pg AFB₁-lysine eq/mg albumin (mean values), country: UK/France/The Gambia/USA¹³, *thereof 181 HBV ca. but no predominant contamination, for detailed information please see the article

incidence: 159/163, sa. const.: people of The Gambia (male and female children), contamination: natural, conc. range: 5–25 pg AFB₁-lysine eq/mg albumin (48 sa), 26–50 pg AFB₁-lysine eq/mg albumin (45 sa), 51–75 pg AFB₁-lysine eq/mg albumin (24 sa), 76–100 pg AFB₁-lysine eq/mg albumin (11 sa), 101–200 pg

AFB₁-lysine eq/mg albumin (20 sa), ≤350 pg AFB₁-lysine eq/mg albumin (7 sa), country: France/The Gambia/People's Republic of China¹⁵

incidence: 29/29, sa. const.: people of

Senegal (male and female children), contamination: natural, conc. range: 5-25 pg AFB,-lysine eq/mg albumin (20 sa), 26-50 pg AFB, -lysine eq/mg albumin (6 sa), 51-75 pg AFB, -lysine eq/ mg albumin (2 sa), 76-100 pg AFB,-lysine eq/mg albumin (1 sa), country: France/The Gambia/People's Republic of China¹⁵ incidence: 15/30, sa. const.: people of Kenya (male and female children), contamination: natural, conc. range: 5-25 pg AFB,-lysine eq/mg albumin (8 sa), 26-50 pg AFB₁-lysine eq/mg albumin (3 sa), 76–100 pg AFB, -lysine eq/ mg albumin (1 sa), 101-200 pg AFB₁-lysine eq/mg albumin (1 sa), ≤350 pg AFB, -lysine eq/mg albumin (2 sa), country: France/The Gambia/People's Republic of China¹⁵ incidence: 4/26, sa. const.: people of Uganda (male and female children), contamination: natural, conc. range: 5-25 pg AFB,-lysine eq/mg albumin (3 sa), 26-50 pg AFB, -lysine eq/mg albumin (1 sa), country: France/The Gambia/People's Republic of China15 incidence: 20/20, sa. const.: people of The Gambia (males and females), contamination: natural, conc. range: 5-25 pg AFB,-lysine eq/mg albumin (13 sa), 26–50 pg AFB₁-lysine eq/mg albumin (2 sa), 51-75 pg AFB, -lysine eq/mg albumin (1 sa), 76-100 pg AFB,-lysine eq/mg albumin (1 sa), 101-200 pg AFB₁-lysine eq/mg albumin (3 sa), country: France/The Gambia/ People's Republic of China¹⁵ incidence: 28/61, sa. const.: people of Kenya (males and females), contamination: natural, conc. range: 5-25

pg AFB,-lysine eq/mg albumin (18 sa),

26–50 pg AFB₁-lysine eq/mg albumin (2 sa), 51–75 pg AFB₁-lysine eq/mg

albumin (1 sa), 76-100 pg AFB, -lysine

eq/mg albumin (4 sa), 101-200 pg AFB,lysine eq/mg albumin (2 sa), >200 pg AFB,-lysine eq/mg albumin (1 sa), country: France/The Gambia/People's Republic of China¹⁵ incidence: 11/84, sa. const.: people of Thailand (males and females), contamination: natural, conc. range: 5-25 pg AFB, -lysine eq/mg albumin (10 sa), 26-50 pg AFB, -lysine eq/mg albumin (1 sa), country: France/The Gambia/People's Republic of China15 incidence: 66/70, sa. const.: people of Guinea (males), age: 9-80 years, contamination: natural, conc. range: 4-50 AFB,-lysine eq/mg albumin (51 sa), >50-385 pg AFB,-lysine eq/mg albumin (15 sa), country: Guinea/France17

incidence: 1/1, sa. const.: person of the USA (female), age: 31 years, contamination: natural, conc.: 3.39 ng/ml, country: USA²⁰

incidence: 5/20*, sa. const.: people of Japan (males: healthy), age: 20–63 years, contamination: natural, conc. range: 20–56 pg/ml, country: Japan²¹, *sa. taken after fasting

incidence: 29/80*, sa. const.: people of Japan (males: healthy), age: 20–63 years, contamination: natural, conc. range: 20–1,169 pg/ml, country: Japan²¹, *sa. taken after lunch

incidence: 1,187/1,188, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: 0.14–4.39 pmol AFB₁/mg albumin, country: USA/People's Republic of China²² incidence: 115/117, sa. const.: people of The Gambia (children), age: 3–4 years, contamination: natural, conc. range: 2.2–250.4 pg AFB₁-lysine eq/mg albumin, country: France/The Gambia/Italy/UK²³ incidence: 33/60, sa. const.: people of the People's Republic of China, contamination: natural, conc. range:

≤890 pmol AFB,/g albumin,

Ø conc.: 221 pmol AFB₁/g albumin, country: USA/People's Republic of China²⁶

incidence: 1/8*, sa. const.: people of Thailand (6 males and 2 females (1 af)), age: 17–73 years, contamination: natural, conc.: 7.4 pg AFB₁-lysine eq/mg albumin, country: France/USA/Thailand²⁹, *HCC ca.

incidence: 3/16*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 353–588 pg/ml, Ø conc.: 447 pg/ml, country: The Sudan/UK³², *kwashiorkor ca.

incidence: 1/1*, sa. const.: person of The Sudan (child), contamination: natural, conc.: 666 pg/ml, country: The Sudan/ UK³², *micronodular cirrhosis with portal hypertension

incidence: 16/16*, sa. const.: people of Mexico (patients: males and females), contamination: natural, conc. range: 0.54–4.65 pmol AF/mg albumin, Ø conc.: 2.70 pmol aflatoxin/mg albumin, country: USA/Finland/Singapore/ Mexico⁵⁵, *HCC ca.

incidence: 59/78, sa. const.: people of Nigeria (males: healthy), age: 18–47 years, contamination: natural, conc. range: 20–3,100 pg/ml, Ø conc.: 665 pg/ml, country: UK/Nigeria⁶⁸

incidence: ?/20*, sa. const.: people of Nigeria (male farmers), contamination: natural, conc. range: 0.025–0.57 µg/ml, country: Nigeria⁶⁹, *control incidence: ?/15*, sa. const.: people of Nigeria (males and females), contamination: natural, conc. range: 0.005–0.130 µg/ml, country: Nigeria⁶⁹, * different disease ca.

incidence: 1/15, sa. const.: people of The Sudan (females), contamination: natural, conc.: 111 pg/ml, country: UK/The Sudan¹³⁴ incidence: 4/67*, sa. const.: people of Nigeria (60 infants and 7 of their mothers), contamination: natural, conc. range: 1,956–20,371 ng/l**, country: Nigeria/UK¹⁹⁵, *control (non-jaundiced?!), **only in infants?

incidence: 21/340*, sa. const.: people of Nigeria (270 infants and 70 of their mothers), contamination: natural, conc. range: 256–58,239 ng/l, country: Nigeria/ UK¹⁹⁵, *jaundiced

incidence: 2/7*, sa. const.: people of India, contamination: natural, conc. range: tr, country: India²³⁷, *jaundiced

incidence: 3/60*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 182–2,094 pg/ml, Ø conc.: 958.33 pg/ml, country: Nigeria/ UK²⁶², *non-jaundiced incidence: 7/64*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 242–10,239 pg/ml, Ø conc.: 2,580.57 pg/ml, country: Nigeria/ UK²⁶², *jaundiced

incidence: 2/78*, sa. const.: people of Nigeria, contamination: natural, conc. range: 2,676–6,532 pg/ml, Ø conc.: 4,604 pg/ml, country: Nigeria/UK²⁶⁹, *urban population incidence: 97/97*, sa. const.: people of Nigeria, no contamination with AFB₁, conc.: nd, country: Nigeria/UK²⁶⁹, *rural population

incidence: 1/20, sa. const.: people of Argentina (patients: 13 males (1 af) and 7 females), age: 42–64 years, contamination: natural, conc.: 0.47 ng/cm³, country: Argentina⁴³⁴ incidence: 24/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 4–69 ng/100 ml, Ø conc.:

32.38 ng/100 ml, country: Egypt⁴⁴⁷, *kwashiorkor ca. incidence: 13/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc. range: 10–18 ng/100 ml, Ø conc.: 13.62 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

incidence: ?/40*, sa. const.: people of the People's Republic of China, age: 20–55 years, contamination: natural,

conc. range: 0.16-1.70 pmol/mg albumin** ***, country: USA/People's Republic of China⁴⁵¹, *control (receiving placebos for 3 months), **AFB-AA, ***for detailed information please see the article incidence: ?/40*, sa. const.: people of the People's Republic of China, age: 20-55 years, contamination: natural, conc. range: 0.26-1.63 pmol/mg albumin** ***, country: USA/People's Republic of China⁴⁵¹, *receiving GTP 500 mg for 3 months, **AFB-AA, ***for detailed information please see the article incidence: ?/40*, sa. const.: people of the People's Republic of China, age: 20-55 years, contamination: natural, conc. range: 0.35-1.55 pmol/mg albumin** ***, country: USA/People's Republic of China451, *receiving GTP 1,000 mg for 3 months, **AFB-AA, ***for detailed information please see the article incidence: 2/40, sa. const.: people of Ghana (29 males and 11 females), age: 30-73 years, contamination: natural, Ø conc.: 12.5 ng/ml, country: Ghana461 incidence: ?/264*, sa. const.: people of Taiwan (males: healthy), age: 30.3-64.8 years, contamination: natural, conc. range: 5.0-355.8 pmol AFB₁/mg albumin** ***, country: USA/Taiwan, Republic of China⁴⁸⁵, *132 HbsAg carriers, 132 non-carriers, **AFB, -albumin adducts, ***measured at time point 1 (for detailed information please see the article) incidence: ?/264*, sa. const.: people of Taiwan (males: healthy), age: 30.3-64.8 years, contamination: natural, conc. range: 5.0-205.2 pmol AFB,/mg albumin** ***, country: USA/Taiwan, Republic of China⁴⁸⁵, *132 HbsAg carriers, 132 non-carriers, **AFB₁-albumin adducts, *** measured at time point 2 (for detailed information please see the article)

incidence: ?/100*, sa. const.: people of

Taiwan (100 males: school students),

age: 13–15 years, contamination: natural, conc. range: 2–138 fmol/mg* **, country: USA/Taiwan, Republic of China⁴⁸⁶, *50 positive and 50 negative for HbsAg, **AFB₁-albumin adducts, ***for detailed information please see the article incidence: ?/100*, sa. const.: people of Taiwan (100 females: school students), age: 13–15 years, contamination: natural, conc. range: 2–174 fmol/mg** ***, country: USA/Taiwan, Republic of China⁴⁸⁶, *50 positive and 50 negative for HbsAg, **AFB₁-albumin adducts, ***for detailed information please see the article

incidence: 6/36*, sa. const.: people of Sierra Leone (children: under 5), contamination: natural, conc. range: 0.2–2.5 ng/ml, country: Sierra Leone⁵⁴⁰, *14 controls, 3 kwashiorkors, 9 underweights, 2 marasmics, and 8 "unspecified" (for detailed information please see the article)

incidence: 2/45, sa. const.: people of Denmark (male workers in animal-feed production), age: 25-62 years, contamination: natural, conc. range: 50-54 pg AFB,/mg albumin* **, Ø conc.: 52 pg AFB,/mg albumin*, country: Denmark559, *first blood sample, **AFB₁-adducts incidence: 7/45, sa. const.: people of Denmark (male workers in animal-feed production), age: 25-62 years, contamination: natural, conc. range: 44-100 pg AFB,/mg albumin* **, Ø conc.: 64.86 pg AFB₁/mg albumin*, country: Denmark559, *second blood sample, **AFB₁-adducts

incidence: 20?/20*, sa. const.: people of Egypt (17 males and 3 females), Ø age: 53.17 years, contamination: natural, Ø conc.: 7.33 ng/ml (mean value), country: Egypt⁵⁹², *control, for detailed information please see the article incidence: 80?/80*, sa. const.: people of Egypt (66 males and 14 females), Ø age: 52.88 years, contamination: natural, Ø

conc.: 32.47 ng/ml (mean value), country: Egypt⁵⁹², *HCC patients, for detailed information please see the article incidence: 42/42, sa. const.: people of the People's Republic of China (30 males and 12 females), age: 25-64 years, contamination: natural, conc. range: ≈≤344 ng AFB₁/g albumin, country: USA/People's Republic of China⁶⁰⁷ incidence: 98/104, sa. const.: people of UK (47 males and 57 females volunteers), age: 18-65 years, contamination: natural, conc. range: <5 pg/mg* (6 sa), 5-15 pg/mg* (18 sa), 16-25 pg/mg* (27 sa), 26-35 pg/mg* (25 sa), 36-45 pg/mg* (17 sa), 46-55 pg/mg* (5 sa), 56-65 pg/mg* (5 sa), 66-95 pg/mg* (1 sa), country: UK⁶²⁷, *AFB₁-lysine (eq) pg/mg albumin

Aflatoxin B_2

*jaundiced

incidence: 2/16*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 9–12 pg/ml, Ø conc.: 10.5 pg/ml, country: The Sudan/UK³², *kwashiorkor ca.

incidence: ?/20*, sa. const.: people of Nigeria (male farmers), contamination: natural, conc. range: 0.010–0.390 µg/ml, country: Nigeria⁶⁹, *control incidence: ?/15*, sa. const.: people of Nigeria (males and females), contamination: natural, conc. range: 0.008–0.240 µg/ml, country: Nigeria⁶⁹, *different disease ca.

incidence: 1*/12, sa. const.: people of The Sudan (children), contamination: natural, conc.: 3 pg/ml, country: UK/The Sudan¹³⁴, *marasmus/kwashiorkor ca.

incidence: 67/67*, sa. const.: people of Nigeria (60 infants and 7 of their mothers), no contamination with AFB₂, conc.: nd, country: Nigeria/UK¹⁹⁵, *control (non-jaundiced?!) incidence: 4/340*, sa. const.: people of Nigeria (270 infants and 70 of their mothers), contamination: natural, conc. range: 17–5? ng/l, country: Nigeria/UK¹⁹⁵,

incidence: 1/60*, sa. const.: people of Nigeria (neonates), contamination: natural, conc.: 40 pg/ml, country: Nigeria/ UK²⁶², *non-jaundiced incidence: 1/64*, sa. const.: people of Nigeria (neonates), contamination: natural, conc.: 20 pg/ml, country: Nigeria/ UK²⁶², *jaundiced

incidence: 1/78*, sa. const.: people of Nigeria, contamination: natural, conc.: 36 pg/ml, country: Nigeria/UK²⁶⁹, *urban population

incidence: 97/97*, sa. const.: people of Nigeria, no contamination with AFB₂, conc.: nd, country: Nigeria/UK²⁶⁹, *rural population

incidence: 7/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 4–16 ng/100 ml, Ø conc.: 12.00 ng/100 ml, country: Egypt⁴⁴⁷, *kwashiorkor ca.

incidence: 1/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc.: 5 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

incidence: 4/36*, sa. const.: people of Sierra Leone (children: under 5), contamination: natural, conc. range: 0.04–4.0 ng/ml, country: Sierra Leone⁵⁴⁰, *14 controls, 3 kwashiorkors, 9 underweights, 2 marasmics, and 8 "unspecified" (for detailed information please see the article)

AFLATOXIN B_{2a}

incidence: 12/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 4–35 ng/100 ml, Ø conc.: 15.58 ng/100 ml, country: Egypt⁴⁴⁷, *kwashiorkor ca. incidence: 4/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc. range: 3–9 ng/100 ml, Ø conc.: 6.00 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

AFLATOXIN B

incidence: 2/45, sa. const.: people of Denmark (males), age: 25–62 years, contamination: natural, conc. range: 50–54 pg AFB/mg albumin***, Ø conc.: 52 pg AFB/mg albumin***, country: Denmark**, *AFB-albumin adducts, **first blood sa. incidence: 7/45, sa. const.: people of Denmark (males), age: 25–62 years, contamination: natural, conc. range: 44–100 pg AFB/mg albumin* **, Ø conc.: 64.86 pg AFB/mg albumin* **, country: Denmark**, *AFB-albumin adducts, **second blood sa.

incidence: 17/17, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: 0.009–0.329 pmol AFB-lysine adduct/mg albumin, Ø conc.: 0.198 pmol AFB-lysine adduct/mg albumin, country: USA⁵¹⁷ incidence: 20/20, sa. const.: people of The Gambia, contamination: natural, conc. range: 0.084–0.228 pmol AFB-lysine adduct/mg albumin, Ø conc.: 0.142 pmol AFB-lysine adduct/mg albumin, country: USA⁵¹⁷

incidence: 20/20, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: 0.065–0.142 pmol AFB-lysine adduct/ mg albumin, Ø conc.: 0.098 pmol AFB-lysine adduct/mg albumin, country: USA⁵¹⁷

incidence: 20/20, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: 0.083–0.147 pmol AFB-lysine adduct/mg albumin, Ø conc.: 0.108 pmol AFB-lysine adduct/mg albumin, country: USA⁵¹⁷

AFLATOXIN G,

incidence: 1/16*, sa. const.: people of The Sudan (children), contamination: natural, conc.: 975 pg/ml, country: The Sudan/UK³², *kwashiorkor ca.

incidence: ?/20*, sa. const.: people of Nigeria (male farmers), contamination: natural, conc. range: 0.024–0.59 µg/ml, country: Nigeria⁶⁹, *control

incidence: ?/15*, sa. const.: people of Nigeria (males and females), contamination: natural, conc. range: 0.005–0.180 µg/ml, country: Nigeria⁶⁹, *different disease ca.

incidence: 3/67*, sa. const.: people of Nigeria (60 infants and 7 of their mothers), contamination: natural, conc. range: 1,112–4,370 ng/l**, country: Nigeria/UK¹⁹⁵, *control (non-jaundiced?!), **only in infants? incidence: 12/340*, sa. const.: people of Nigeria (270 infants and 70 of their mothers), contamination: natural, conc. range: 460–165,067 ng/l, country: Nigeria/UK¹⁹⁵, *jaundiced

incidence: 2/60*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 1,877–6,389 pg/ml, Ø conc.: 4,133 pg/ml, country: Nigeria/UK²⁶², *non-jaundiced incidence: 2/64*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 293–1,074 pg/ml, Ø conc.: 683.5 pg/ml, country: Nigeria/UK²⁶², *jaundiced

incidence: 1/78*, sa. const.: people of Nigeria, contamination: natural, conc.: 8,828 pg/ml, country: Nigeria/UK²⁶⁹, *urban population incidence: 2/97*, sa. const.: people of Nigeria, contamination: natural, conc. range: 2,683–6,436 pg/ml, Ø conc.: 4,459.5 pg/ml, country: Nigeria/UK²⁶⁹, *rural population

incidence: 19/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 2–38 ng/100 ml, Ø conc.: 21.50 ng/100 ml, country: Egypt⁴⁴⁷, *kwashiorkor ca. incidence: 8/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural,

incidence: 38/40, sa. const.: people of Ghana (29 males and 11 females), age:

conc. range: 1-12 ng/100 ml, Ø conc.:

7.75 ng/100 ml, country: Egypt⁴⁴⁷,

*marasmus ca.

30–73 years, contamination: natural, Ø conc.: 9.2 ng/ml, country: Ghana⁴⁶¹ incidence: 1/150, sa. const.: people of Italy (33 females donors: healthy), 117 men, age: 40–75 years, contamination: natural, conc.: 0.40 ng/ml, country: Italy⁴⁶⁵ incidence: 5/36*, sa. const.: people of Sierra Leone (children: under 5), contamination: natural, conc. range: 0.5–1.6 ng/ml, country: Sierra Leone⁵⁴⁰, *14 controls, 3 kwashiorkors, 9 underweights, 2 marasmics, and 8 "unspecified" (for detailed information please see the article)

AFLATOXIN G,

incidence: 1/16*, sa. const.: people of The Sudan (children), contamination: natural, conc.: 4 pg/ml, country: The Sudan/UK³², *kwashiorkor ca.

incidence: ?/20*, sa. const.: people of Nigeria (male farmers), contamination: natural, conc. range: 0.012-0.192 µg/ml, country: Nigeria⁶⁹, *control incidence: ?/15*, sa. const.: people of Nigeria (males and females), contamination: natural, conc. range: 0.002-0.080 µg/ml, country: Nigeria⁶⁹, *different disease ca.

incidence: 1/15, sa. const.: people of The Sudan (females), contamination: natural, conc.: 2 pg/ml, country: UK/The Sudan¹³⁴

incidence: 2*/12, sa. const.: people of The Sudan (children), contamination: natural, conc.: 3–5 pg/ml, Ø conc.: 4 pg/ml, country: UK/The Sudan¹³⁴, *thereof 1 marasmus/kwashiorkor ca.

incidence: 1/67*, sa. const.: people of Nigeria (60 infants and 7 of their mothers), contamination: natural, conc.: 70 ng/l**, country: Nigeria/UK¹⁹⁵, *control (non-jaundiced?!), **only in infants?

incidence: 16/340*, sa. const.: people of Nigeria (270 infants and 70 of their mothers), contamination: natural, conc. range: 21–990 ng/l, country: Nigeria/ UK¹⁹⁵, *jaundiced

incidence: 2/60*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 14–173 pg/ml, Ø conc.: 93.5 pg/ml, country: Nigeria/UK²⁶², *non-jaundiced

incidence: 78/78*, sa. const.: people of Nigeria, no contamination with AFG₂, conc.: nd, country: Nigeria/UK²⁶⁹, *urban population

incidence: 1/97*, sa. const.: people of Nigeria, contamination: natural, conc.: 20 pg/ml, country: Nigeria/UK²⁶⁹, *rural population

incidence: 6/36*, sa. const.: people of Sierra Leone (children: under 5), contamination: natural, conc. range: 0.01–1.2 ng/ml, country: Sierra Leone⁵⁴⁰, *14 controls, 3 kwashiorkors, 9 underweights, 2 marasmics, and 8 "unspecified" (for detailed information please see the article)

AFLATOXIN G22

incidence: 9/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 2–17 ng/100 ml, Ø conc.: 8.22 ng/100ml, country: Egypt⁴⁴⁷, *kwashiorkor ca.

incidence: 3/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc. range: 2–28 ng/100 ml, Ø conc.: 11.33 ng/100ml, country: Egypt⁴⁴⁷, *marasmus ca.

AFLATOXIN M,

incidence: 1/15, sa. const.: people of The Sudan (females), contamination: natural, conc.: 34 pg/ml, country: UK/The Sudan¹³⁴ incidence: 1/12, sa. const.: people of The Sudan (children), contamination: natural, conc.: 12 pg/ml, country: UK/The Sudan¹³⁴ incidence: 3/67*, sa. const.: people of Nigeria (60 infants and 7 of their mothers), contamination: natural, conc. range: 80–11,547 ng/l**, country: Nigeria/ UK¹⁹⁵, *control (non-jaundiced?!), **only in infants?

incidence: 8/340*, sa. const.: people of Nigeria (270 infants and 70 of their mothers), contamination: natural, conc. range: 48–32,381 ng/l, country: Nigeria/UK¹⁹⁵, *jaundiced

incidence: 1/60*, sa. const.: people of Nigeria (neonates), contamination: natural, conc.: 417 pg/ml, country: Nigeria/UK²⁶², *non-jaundiced incidence: 4/64*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 36–877 pg/ml, Ø conc.: 290.25 pg/ml, country: Nigeria/UK²⁶², *jaundiced

incidence: 1/78*, sa. const.: people of Nigeria, contamination: natural, conc.: 1,272 pg/ml, country: Nigeria/UK²⁶⁹, *urban population incidence: 4/97*, sa. const.: people of Nigeria, contamination: natural, conc. range: 20–4,984 pg/ml, Ø conc.: 1,324 pg/ml, country: Nigeria/UK²⁶⁹, *rural population

incidence: 12/15*, sa. const.: people of Nepal (10 males (7 af) and 5 females (5 af)), contamination: natural, Ø conc.: 8.7 pg/ml, country: Japan/Nepal360, *control incidence: 12/23*, sa. const.: people of Nepal (8 males (4 af) and 15 females (8 af) patients, contamination: natural, conc. range: ≤15.4 pg/ml, Ø conc.: 8.9 pg/ml, country: Japan/Nepal360, *patients incidence: 1/1, sa. const.: person of the UAE (female), age: 32 years, contamination: natural, conc.: 1.82 ng/ml, country: UAE⁴²⁸ incidence: 4/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7-20 months, contamination: natural, conc. range: 2-12 ng/100 ml, Ø conc.: 8.25 ng/100 ml, country: Egypt447, *kwashiorkor ca. incidence: 2/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6-13 months, contamination: natural,

conc. range: 10–15 ng/100 ml, Ø conc.: 12.50 ng/100 ml, country: Egypt⁴⁴⁷,

*marasmus ca.

incidence: 6/12*, sa. const.: people of Egypt (6 males and 6 females), contamination: natural, Ø conc.: 0.66 ng/ml, country: Egypt⁴⁵⁵, *control patients incidence: 27/46*, sa. const.: people of Egypt (30 males and 16 females), Ø age: 56 years, contamination: natural, Ø conc.: 5.61 ng/ml, country: Egypt⁴⁵⁵, *HCC patients incidence: 11/12*, sa. const.: people of Egypt (7 males and 5 females), Ø age: 48 years, contamination: natural, Ø conc.: 19.23 ng/ml, country: Egypt⁴⁵⁵, *cirrhotic patients

incidence: 7/36*, sa. const.: people of Sierra Leone (children: under 5), contamination: natural, conc. range: 0.05–1.7 ng/ml, country: Sierra Leone⁵⁴⁰, *14 controls, 3 kwashiorkors, 9 underweights, 2 marasmics, and 8 "unspecified" (for detailed information please see the article)

AFLATOXIN M.

incidence: 1/15, sa. const.: people of The Sudan (females), contamination: natural, conc.: 5 pg/ml, country: UK/The Sudan¹³⁴

incidence: 3/67*, sa. const.: people of Nigeria (60 infants and 7 of their mothers), contamination: natural, conc. range: 3,262–4,350 ng/l**, country: Nigeria/UK¹⁹⁵, *control (non-jaundiced?!) group, **only in infants? incidence: 11/340*, sa. const.: people of Nigeria (270 infants and 70 of their mothers), contamination: natural, conc. range: 407–9,280 ng/l, country: Nigeria/ UK¹⁹⁵, *jaundiced

incidence: 6/60*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 89–7,962 pg/ml, Ø conc.: 1,515.33 pg/ml, country: Nigeria/UK²⁶², *non-jaundiced incidence: 6/64*, sa. const.: people of Nigeria (neonates), contamination: natural, conc. range: 213–4,134 pg/ml, Ø conc.: 1,246.67 pg/ml, country: Nigeria/UK²⁶², *jaundiced

incidence: 1/78*, sa. const.: people of Nigeria, contamination: natural, conc.: 24,076 pg/ml, country: Nigeria/UK²⁶⁹, *urban population incidence: 1/97*, sa. const.: people of Nigeria, contamination: natural, conc.: 24 pg/ml, country: Nigeria/UK²⁶⁹, *rural population

incidence: 12/36*, sa. const.: people of Sierra Leone (children: under 5), contamination: natural, conc. range: 0.04–4.0 ng/ml, country: Sierra Leone⁵⁴⁰, *14 controls, 3 kwashiorkors, 9 underweights, 2 marasmics, and 8 "unspecified" (for detailed information please see the article)

AFLATOXIN P

incidence: 30/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, no contamination with AFP, conc.: nd, country: Egypt⁴⁴⁷, *kwashiorkor ca.

incidence: 1/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc. range: 7 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

Aflatoxin Q_1

incidence: 3/40, sa. const.: people of Ghana (29 males and 11 females), age: 30–73 years, contamination: natural, Ø conc.: 7.5 ng/ml, country: Ghana⁴⁶¹

AFLATOXIN

incidence: 444/444, sa. const.: people of The Gambia (children), age: 3–4 years, contamination: natural, conc. range: 2.2–459 pg AF-lysine eq/mg albumin*, country: UK/The Gambia⁵, *AF-albumin adducts

incidence: 323/391, sa. const.: people of The Gambia (male and female children), age: 3–8 years, contamination: natural, conc. range: 5–719.6 pg AF-lysine eq/mg albumin*, country: The Gambia/France/UK³³, *AF-albumin adducts

incidence: 434/466, sa. const.: people of The Gambia (251 male and 221 female children), age: 6–9 years, contamination: natural, conc. range: 5–456 pg/mg*, Ø conc.: 22.3 pg/mg* (geometric mean), country: UK/The Gambia³⁷, *AF-albumin adducts

incidence: 5/108*, sa. const.: people of the USA, contamination: natural, conc. range: 2.43–4.68 ng/ml, Ø conc.: 3.012 ng/ml, country: USA⁵¹, *thereof 17 Reye's-syndrome ca. but no predominant contamination

incidence: 27?/27, sa. const.: people of the UK, contamination: natural, conc. range: ≤64 pmol/l, country: UK⁵⁴

incidence: 4/227, sa. const.: people of Czechoslovakia (patients), contamination: natural, conc. range: ≤74 ng/l, Ø conc.: 59.8 ng/l, country: Czechoslovakia³553

incidence: 56/56, sa const.: people of the People's Republic of China (males and females), contamination: natural, conc. range: 0.81-2.41 pmol/mg albumin* **, Ø conc.: 1.24 pmol/mg albumin* **, country: People's Republic of China/ USA388, *AF-albumin adducts, **at the beginning of the study incidence: 27?/27, sa const.: people of the People's Republic of China (males and females), contamination: natural, conc. range: 0.92-1.67 pmol/mg albumin* **, Ø conc.: 1.21 pmol/mg albumin* **, country: People's Republic of China/ USA³⁸⁸, *AF-albumin adducts, **at the end of the study

incidence: ?/102*, sa. const.: people of Kenya, contamination: natural, conc. range: 0.002–17.7 ng AF-lysine/mg albumin** ***, country: USA/UK⁴²⁷, *thereof 19 patients with acute hepatic failures (Kenya aflatoxicosis outbreak), **analyzed by IDMS, ***AF-albumin adducts

incidence: ?/102*, sa. const.: people of Kenya, contamination: natural, conc. range: 0–13.6 ng/mg** ***, country:

USA/UK427, *thereof 19 patients with acute hepatic failures (Kenya aflatoxicosis outbreak), **analyzed by HPLC-f, ***AF-albumin adducts incidence: ?/102*, sa. const.: people of Kenya, contamination: natural, conc. range: 0.018-67.0 ng/mg albumin** ***, country: USA/UK427, *thereof 19 patients with acute hepatic failures (Kenya aflatoxicosis outbreak), **analyzed by ELISA, *** AF-albumin adducts incidence: 2/28, sa. const.: people of the USA, contamination: natural, conc. range: 10.1-34.3 pg/mg* ** ***, country: USA/UK427, *additionally four subjects with levels near or at the LOD, **analyzed by ELISA, ***AF-albumin

incidence: 38/114, sa. const.: people of The Philippines (children), age: 0.08–12 years, weight for height: 6.6–23.1 kg/m, contamination: natural, conc. range: 20–5,600 pg/ml, Ø conc.: 462 pg/ml, country: UK/The Philippines⁴⁶⁰ incidence: ?/200, sa. const.: people of Benin (102 male and 98 female children), age: 16–37 months, contamination: natural, conc. range: 9.2–148.1 pg/mg*,

country: UK/Benin488, *AF-albumin

adducts

incidence: 24/24*, sa. const.: people of Egypt (20 males and 4 females), age: 37–73 years, contamination: natural, conc. range: 3.5–25.8 pg/mg**, Ø conc.: 9.0 pg/mg** (geometric mean), country: UK/USA/Egypt⁵⁰³, *control (without HCC), **AF-albumin adducts incidence: 7/22*, sa. const.: people of Egypt (18 males and 4 females), age: 36–74 years, contamination: natural, conc. range: 0–32.8 pg/mg**, Ø conc.: 2.6 pg/mg** (geometric mean), country: UK/USA/Egypt⁵⁰³, *HCC ca., **AF-albumin adducts

incidence: >402/423, sa. const.: people of the Republic of Guinea, contamination: natural, conc. range: 8.2–24.6 pg AFB₁lysine eq/mg albumin*, country: Republic

of Guinea/France/UK⁵⁶⁴, *AF-albumin adducts (for detailed information please see the article)

incidence: 4/7, sa. const.: people of Kenya?, contamination: natural, conc. range: 175-670 pg AF/mg albumin*, Ø conc.: 390.25 pg AF/mg albumin*, country: France⁶²⁹, *measured by ELISA incidence: 4/7, sa. const.: people of Kenya?, contamination: natural, conc. range: 5.7-17.5 pg AF-lysine/mg albumin*, Ø conc.: 9.98 pg AF-lysine/mg albumin*, country: France⁶²⁹, *measured by HPLC-f incidence: 17/19, sa. const.: people of The Gambia, contamination: natural, conc. range: ~6.5~~190 pg AF-lysine/mg albumin*, country: France⁶²⁹, *measured by hydrolysis-ELISA incidence: 5/38, sa. const.: people of Thailand, contamination: natural, conc. range: ~4.7~~49 pg AF-lysine/mg albumin*, country: France⁶²⁹, *measured by hydrolysis-ELISA incidence: 14/14, sa. const.: people of France, no contamination with AF, conc.: nd*, country: France629, *measured by hydrolysis-ELISA

AFLATOXINS

incidence: 7/44*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: 77 pg/ml (geometric means), country: UK/The Sudan³⁶, *control incidence: 11/57*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: 211 pg/ml (geometric means), country: UK/The Sudan³⁶, *marasmus ca. incidence: 7/32*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: 412 pg/ml (geometric means), country: UK/The Sudan³⁶, *marasmic kwashiorkor ca. incidence: 16/44*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: 706 pg/ml (geometric means), country: UK/The Sudan³⁶, *kwashiorkor ca.

incidence: 2/35*, sa. const.: people of Thailand (females), contamination: natural, conc. range: ≤1.22 nmol/ml, Ø conc.: 0.62 nmol/ml, country: UK56, *maternal sera, $(AF = AFB_1, AFG_1, AFQ_1)$ incidence: 17/35*, sa. const.: people of Thailand (fetuses), contamination: natural, conc. range: 0.064-13.6 nmol/ml, Ø conc.: 3.1 nmol/ml, country: UK56, *cord sera, $(AF = AFB_1, AFG_1, AFQ_1)$ incidence: 22/103*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 1-9 pg/ml** (4 sa), 10-99 pg/ml** (6 sa), 100-999 pg/ml** (10 sa), ≥1,000 pg/ml** (2 sa), country: UK/ The Sudan⁶⁷, *control, **includes AFB,, AFM, incidence: 52/138*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 1-9 pg/ml** (7 sa), 10-99 pg/ml** (16 sa), 100-999 pg/ml** (16 sa), ≥1,000 pg/ml** (13 sa), country: UK/The Sudan⁶⁷, *kwashiorkor, **includes AFB, AFM, AFL incidence: 28/98*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 1-9 pg/ml** (7 sa), 10-99 pg/ml** (10 sa), 100-999 pg/ml** (5 sa), ≥1,000 pg/ml** (6 sa), country: UK/The Sudan⁶⁷, *marasmic kwashiorkor, **includes AFB,, AFM,, AFL incidence: 31/118*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 1-9 pg/ml** (6 sa), 10-99 pg/ml** (7 sa), 100-999 pg/ml** $(14 \text{ sa}), \ge 1,000 \text{ pg/ml}^{**} (4 \text{ sa}), \text{ country:}$ UK/The Sudan⁶⁷, *marasmus, **includes AFB, AFM, AFL incidence: 28/28, sa. const.: people of Nepal (16 males and 12 females (all af)),

Nepal (16 males and 12 females (all af)), contamination: natural, conc. range: 0.06–10 ng/ml*, country: UK/USA³⁸¹, *(AF = AFB₁, AFG₁, AFQ₁) incidence: 7/100*, sa. const.: people of Italy (78 males and 22 females), age: 40–75 years, contamination: natural, conc. range: 0.40–1.20 ng/ml** country: Italy⁴⁶⁵

40–75 years, contamination: natural, conc. range: 0.40–1.20 ng/ml**, country: Italy⁴⁶⁵, *lung cancer patients, **includes AFB₁, AFB₂

GLIOTOXIN

incidence: 2/11*, sa. const.: people of the USA (patients), contamination: natural, conc. range: 65–154 ng/ml, Ø conc.: 109.5 ng/ml, country: USA⁷⁸, *non-IA-patients incidence: 4/5*, sa. const.: people of the USA (patients), contamination: natural, conc. range: 166–785 ng/ml, Ø conc.: 381.5 ng/ml, country: USA⁷⁸, *IA-patients

OCHRATOXIN A

incidence: 17/2,566*, sa. const.: people of Croatia (males and females), contamination: natural, conc. range: 2–10 ng/ml, Ø conc.: 2.8 ng/ml, country: Croatia¹⁸⁸, *control incidence: 116/4,343*, sa. const.: people of Croatia (males and females), contamination: natural, conc. range: 2-50 ng/ml, country: Croatia188, *EN ca. incidence: 10/10* (8**), sa. const.: households of Croatia, contamination: natural, conc. range: 5****-50*** ng/ml, country: Croatia¹⁸⁸, *sa. sera of different households, **with OA in food samples, ***first and **** second blood sa., for detailed information please see the article incidence: 5/65*, sa. const.: people of Italy (healthy), contamination: natural, conc. range: 0.12-2.0 ng/ml, Ø conc.: 0.53 ng/ml, country: Italy/Sweden196, *control (no kidney disorders ca) incidence: ?/40*, sa. const.: people of Italy (patients), contamination: natural, conc. range: 0.05-1.4 ng/ml, country: Italy/ Sweden¹⁹⁶, *kidney disorders ca. incidence: 9/28*, sa. const.: people of Italy (patients), contamination: natural, conc. range: 0.18-14 ng/ml, Ø conc.: 1.4 ng/ml, country: Italy/Sweden196, *dialysis ca. incidence: 62/62*, sa. const.: people of Tunisia (males (32 af) and females (30 af)), age: 21-80 years, contamination: natural, conc. range: 0.12-8.06 ng/ml, country: France/Tunisia202, *control (no nephropathic trouble ca.) incidence: 23/26*, sa. const.: people of Tunisia (12 males (10 af) and 14 females

(13 af)), age: 20–71 years, contamination: natural, conc. range: 0.11–5.80 ng/ml, country: France/Tunisia²⁰², *nephropathic disease ca.

incidence: 15/21*, sa. const.: people of Tunisia (19 males (17 af) and 2 females (2 af)), age: 32–84 years, contamination: natural, conc. range: 0.14–0.74 ng/ml, country: France/Tunisia²⁰², *different nephropathic disease ca.

incidence: 57/408, sa. const.: people of Yugoslavia, contamination: natural, conc. range: 1–2 ng/ml (36 sa), 3–5 ng/ml (11 sa), 6–10 ng/ml (4 sa), 11–100 ng/ml (5 sa), 1,800 ng/ml (1 sa), country: Yugoslavia/ Sweden/USA/Croatia²⁰⁶

incidence: 290/355, sa. const.: people of Hungary, contamination: natural, conc. range: 0.2–1.0 ng/ml (266 sa), >1.0 to ≤10.0 ng/ml (24 sa), country: Hungary²⁰⁷

incidence: 134/138, sa. const.: people of Italy (male and female adults: healthy), age: 35–65 years, Ø weight: 69.2 kg, contamination: natural, conc. range: 0.12–0.20 ng/ml (4 sa), 0.20–0.39 ng/ml (42 sa), 0.40–0.59 ng/ml (38 sa), 0.60–0.79 ng/ml (25 sa), 0.80–1.0 ng/ml (11 sa), >1.0–2.84 ng/ml (13 sa), 57.2 ng/ml (1 sa), country: Italy²⁰⁸

incidence: 11/60, sa. const.: people of France, contamination: natural, Ø conc.: 1.17 ng/ml, country: France/Tunisia²¹⁵ incidence: 6/30*, sa. const.: people of Tunisia, contamination: natural, Ø conc.: 0.53 ng/ml, country: France/Tunisia²¹⁵, *control (no chronic nephropathic disease ca) incidence: 10/30*, sa. const.: people of Tunisia, contamination: natural, Ø conc.: 0.28 ng/ml, country: France/Tunisia²¹⁵, *chronic nephropathic disease ca.

incidence: ?/40*, sa. const.: people of Turkey (17 males and 23 females), Ø age: 41 years, contamination: natural, conc. range: 0.19–1.43 ng/ml, country: Turkey²²⁰, *control (no urinary disorder ca.) incidence: ?/93*, sa. const.: people of Turkey (63 males and 30 females), Ø age:

42.5–56.8 years, contamination: natural, conc. range: 0.3–5.5 ng/ml, country: Turkey²²⁰, *urinary disorder ca.

incidence: 80/644, sa. const.: people of the Czech Republic (305 males (39 af) and 339 females (41 af)), contamination: natural, conc. range: >1–12 μ g/l, country: Czech Republic²²²

incidence: 1,138/1,222, sa. const.: people of the Czech Republic, Ø age: 32 years, contamination: natural, conc. range: $0.1-0.2 \mu g/l (798 \text{ sa}), >0.2-1 \mu g/l (332 \text{ sa}), >1-2 \mu g/l (7 \text{ sa}), 13.7 \mu g/l (1 \text{ sa}), country: Czech Republic/France²²⁵$

incidence: 21/71*, sa. const.: people of Egypt (males and females), age: 5–70 years, contamination: natural, conc. range: 0.32–10.15 ng/ml, country: Egypt/France²²⁷, *renal disease ca., for detailed information please see the article incidence: 2/15*, sa. const.: people of Egypt (males and females), age: 22–50 years, contamination: natural, conc. range: 0.3–0.91 ng/ml, Ø conc.: 0.61 ng/ml, country: Egypt/France²²⁷, *potential kidney donors, for detailed information please see the article

incidence: 213/277*, sa. const.: people of Hungary (volunteers: healthy), contamination: natural, conc. range: 0.1–0.499 ng/ml (160 sa), 0.5–1.40 ng/ml (53 sa), country: Hungary²³⁴, *control incidence: 103/150*, sa. const.: people of Hungary (patients: registered), contamination: natural, conc. range: 0.1–0.499 ng/ml (83 sa), 0.5–2.26 ng/ml (20 sa), country: Hungary²³⁴, *kidney, liver, and tumor disease ca.

incidence: 87/100, sa. const.: people of Italy (females), contamination: natural, conc. range: 0.02 ng/ml (6 sa), 0.1 ng/ml (38 sa), 0.5 ng/ml (31 sa), >1 ng/ml (12 sa), country: Italy²⁶⁸

incidence: 173/306, sa const.: people of Germany, contamination: natural, conc. range: 0.1–14.4 μg/kg, Ø conc.: 0.6 μg/kg, country: Germany²⁹¹

incidence: 728/785, sa const.: people of Germany, contamination: natural, conc. range: 0.06–2.03 ng/ml, Ø conc.: 0.267 ng/ml, country: Germany³⁰²

incidence: 15/639, sa const.: people of Yugoslavia, contamination: natural, conc. range: 1–57 ng/g, Ø conc.: 7.27 ng/g, country: Sweden/Yugoslavia³²³

incidence: 909/927, sa const.: people of Germany, contamination: natural, conc. range: 0.061-0.10 ng/ml, (41 sa), 0.11-0.30 ng/ml (607 sa), 0.31-0.50 ng/ml (205 sa), 0.51-0.70 ng/ml (31 sa), 0.71-0.90 ng/ml (9 sa), 0.91-≤2.03 ng/ml (16 sa), country: Germany³⁴¹ incidence: 60/61, sa. const.: people of Germany (women: non-pregnant), contamination: natural, conc. range: <0.06-1.63 ng/ml, Ø conc.: 0.43 ng/ml, country: Germany341 incidence: 25/26, sa. const.: people of Germany (women: pregnant first trimenon), contamination: natural, conc. range: <0.06-0.88 ng/ml, Ø conc.: 0.30 ng/ml, country: Germany³⁴¹ incidence: 7/9, sa. const.: people of Germany (mothers at birth), contamination: natural, conc. range: 0.06-0.42 ng/ml, country: Germany³⁴¹ incidence: 26/27, sa. const.: people of Germany (puerperae 5th/6th day), contamination: natural, conc. range: <0.06-0.42 ng/ml, Ø conc.: 0.10 ng/ml, country: Germany³⁴¹: incidence: 77/79*, sa. const.: people of Germany, contamination: natural, conc. range: 0.06-0.90 ng/ml, country: Germany341, *umbilical cord blood incidence: 368/368, sa. const.: people of Switzerland (205 males and 163 females), age: 20-40 years, contamination: natural, conc. range: 0.06-6.02 ng/g, Ø conc.: 0.4 ng/g, country: Switzerland349 incidence: 35/143, sa. const.: people of Czechoslovakia (patients), contamination:

natural, conc. range: 100-500 ng/l (19 sa),

500-1,000 ng/l (15 sa), 1,260 ng/l (1 sa),

country: Czechoslovakia353

incidence: 30/30*, sa. const.: people of Poland, contamination: natural, conc. range: 0.14-3.41 ng/ml, Ø conc.: 1.14 ng/ml, country: Poland446, *maternal blood serum incidence: 28/30*, sa. const.: people of Poland, contamination: natural, conc. range: 0.56-5.42 ng/ml, Ø conc.: 1.96 ng/ml, country: Poland446, *fetal blood serum incidence: 36/50, sa. const.: people of Egypt (females), contamination: natural, Ø conc.: 4.28 ng/ml (all sa), country: Egypt449 incidence: 50?/50?, sa. const.: people of Egypt (infants), contamination: natural, Ø conc.: 1.26 ng/ml, country: Egypt449 incidence: 50/50, sa. const.: people of Portugal (27 male and 23 female nephropathic patients of Coimbra), Ø age: 66 years, Ø weight: 66 kg, contamination: natural, conc. range: 0.12-1.52 µg/l, country: Portugal468, for detailed information please see the article incidence: 45/45, sa. const.: people of Portugal (26 male and 19 female nephropathic patients of Aveiro), Ø age: 56 years, Ø weight: 65 kg, contamination: natural, conc. range: 0.15-1.03 µg/l, country: Portugal468, for detailed information please see the article incidence: ?/23*, sa. const.: people of Italy (males), age: 26-49 years, contamination: natural, conc. range: 0.03-0.95 ng/ml, country: Italy470, *control incidence: 6/6*, sa. const.: people of Italy (males), age: 26-49 years, contamination: natural, conc. range: 0.94-3.28 ng/ml, Ø conc.: 2.29 ng/ml, country: Italy470, *people breathing OTA contaminated air incidence: 29/29, sa. const.: people of Portugal (13 males and 16 females of Coimbra), age: 21-57 years, Ø weight: 69 kg, contamination: natural, conc. range: 0.19–0.96 μg/l, Ø conc.: 0.42 μg/l, country: Portugal507 incidence: 31/31*, sa. const.: people of Portugal (14 males and 17 females of Verride), age: 26-92 years, Ø weight: 73 kg, contamination: natural, conc.

range: 0.25–2.49 μg/l, Ø conc.: 0.78 μg/l, country: Portugal⁵⁰⁷ incidence: 44/44*, sa. const.: people of Portugal (10 males and 34 females of Ereira), age: 19–88 years, Ø weight: 69 kg, contamination: natural, conc. range: 0.14–1.91 μg/l, Ø conc.: 0.44 μg/l, country: Portugal⁵⁰⁷

incidence: 1,596/1,732, sa. const.: people of Germany (male and female adults and children), contamination: natural, conc. range: LOD/LOQ–0.9 μ g/l (1,578 sa), 1.0–1.9 μ g/l (17 sa), 2.03 μ g/l (1 sa), country: EU⁵⁰⁸

incidence: 231/273, sa. const.: people of Italy (males and females), contamination: natural, conc. range: LOD/LOQ-0.9 μ g/l (190 sa), 1.0-1.9 μ g/l (27 sa), 2.0-3.6 μ g/l (14 sa), country: EU⁵⁰⁸

incidence: 240/594, sa. const.: people of

the Czech Republic (496 males and 98 females), age: 18–58 years, contamination: natural, conc. range: 0.05–37 µg/l, country: Czech Republic⁵²³ incidence: 5/5, sa. const.: people of Bulgaria (volunteers of Gorno Peshtene, healthy), age: 20–30 years, contamination: natural, conc. range: 0.44–1.46 µg/l*, Ø conc.: 0.67 µg/l*, country: Bulgaria/France⁵³⁸, *measured for 4 weeks (for detailed information please see the article) incidence: 11/11, sa. const.: people of

Bulgaria (volunteers of Beli Izvor, healthy), age: 20–30 years, contamination: natural, conc. range: 0.26–8.36 µg/l*, Ø conc.: 2.01 µg/l*, country: Bulgaria/France⁵³⁸, *measured for 4 weeks (for detailed information please see the article)

incidence: 10/36*, sa. const.: people of Sierra Leone (children: under 5), contamination: natural, conc. range: 1.5–18.2 ng/ml, country: Sierra Leone⁵⁴⁰, *14 controls, 3 kwashiorkors, 9 underweights, 2 marasmics, and 8 "unspecified" (for detailed information please see the article)

OCHRATOXIN A METHYL ESTER incidence: 4/639, sa const.: people of Yugoslavia, contamination: natural, conc. range: 5–42 ng/g, Ø conc.: 16.25 ng/g, country: Sweden/Yugoslavia³²³

OCHRATOXIN Q

incidence: 20/639, sa const.: people of Yugoslavia, contamination: natural, conc. range: 2–44 ng/g, Ø conc.: 6.45 ng/g, country: Sweden/Yugoslavia³²³

Ochratoxin α Methyl Ester incidence: 13/639, sa const.: people of Yugoslavia, contamination: natural, conc. range: 4–43 ng/g, Ø conc.: 9.38 ng/g, country: Sweden/Yugoslavia³²³

OCHRATOXIN B

incidence: 7/36*, sa. const.: people of Sierra Leone (children: under 5), contamination: natural, conc. range: 0.05– 8.2 ng/ml, country: Sierra Leone⁵⁴⁰, *14 controls, 3 kwashiorkors, 9 underweights, 2 marasmics, and 8 "unspecified" (for detailed information please see the article)

TRICHOTHECENES

incidence: 7?/23, sa. const.: people of the USA (occupants of uncontaminated buildings), contamination: natural, conc. range: ≤0.11 ng/ml, country: USA/Canada³87

incidence: 19?/40, sa. const.: people of the USA (occupants of uncontaminated buildings), contamination: natural, conc. range: ≤83.6 ng/ml, country: USA/ Canada³⁸⁷

ZEARALENONE

incidence: 5/36, sa. const.: people of Hungary (patients), contamination: natural, conc. range: $18.9-103.5~\mu g/l$, \varnothing conc.: $66.08~\mu g/l$, country: Hungary²⁰³ see also Human blood and Human plasma

Human serum/plasma may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 200/200, sa. const.: people of Sweden (males and females), contamination: natural, conc. range: LOD/LOQ-0.88 µg/l, country: EU⁵⁰⁸

Human spleen may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc.: 3,448 pg/g tissue, country: Singapore/UK²⁵⁹

AFLATOXIN B,

incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc.: 631 pg/g tissue, country: Singapore/UK²⁵⁹

AFLATOXIN M,

incidence: 3/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc. range: 20–4,746 pg/g tissue, Ø conc.: 2,348.66 pg/g tissue, country: Singapore/UK²⁵⁹

AFLATOXIN M.

incidence: 1/17, sa. const.: people of Malaysia (1 adult and 16 children: 12 males and 5 females), age: adult 49 years, children 2.5–11 years, contamination: natural, conc.: 1,479 pg/g tissue, country: Singapore/UK²⁵⁹

Human stomach may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 14/20*, sa. const.: people of Thailand (children), contamination:

natural, conc. range: tr–127 μg/kg**, country: USA/Thailand¹¹⁰, *EFDV ca., **in stomach contents incidence: 4/8*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr ** ***, country: USA/Thailand¹⁰, *dying from causes other than EFDV, **in stomach contents, ***sa. showed a blue fluorescent spot similar to that of AFB,

AFLATOXIN B₂ incidence: 3/20*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr–19 μg/kg*, country: USA/Thailand¹⁰, *EFDV ca.,

Human stool may contain the following mycotoxins and/or their metabolites:

**in stomach contents

AFLATOXICOL

incidence: 1/5*, sa. const.: people of Kenya (children), contamination: natural, conc.: 1,711 ng after 9 days**, country: Kenya/ UK⁹¹, *kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article incidence: 15*/32**, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 0.63 ng/ml, country: Sierra Leone⁵⁴⁰, *5 controls, 1 underweight, 3 marasmics, and 6 kwashiorkors AFL-contaminated, **11 controls, 4 underweights, 5 marasmics, and 12 kwashiorkors

AFLATOXIN B₁ incidence: 7/18*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr–123 µg/kg, country: USA/Thailand¹⁰, *EFDV ca. incidence: 3/5*, sa. const.: people of Thailand (children), contamination: natural, conc. range: tr**, country: USA/Thailand¹⁰, *dying from causes other than EFDV, **sa. showed a blue fluorescent spot similar to that of AFB₁

incidence: 2/5*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 2,436-3,147 ng after 9 days**, country: Kenya/UK91, *kwashiorkor ca. **total excretion after 9 days, for detailed information please see the article incidence: 1/7*, sa. const.: people of Kenya (children), contamination: natural, conc.: 1,584 ng after 9 days**, country: Kenya/ UK91, *marasmic kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article incidence: 5/11*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 29 ng/ml, country: Sierra Leone⁵⁴⁰, *control incidence: 1/4*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 21 ng/ml, country: Sierra Leone⁵⁴⁰, *underweight ca. incidence: 3/5*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 26 ng/ml, country: Sierra Leone⁵⁴⁰, *marasmus ca. incidence: 7/12*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 19 ng/ml, country: Sierra Leone⁵⁴⁰, *kwashiorkor ca.

AFLATOXIN B,

incidence: 4/18*, sa. const.: people of Thailand (children), contamination: natural, conc. range: 4–19 µg/kg, Ø conc.: 12.8 µg/kg, country: USA/Thailand¹⁰, *EFDV ca.

incidence: 1/11*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 1.0 ng/ml, country: Sierra Leone⁵⁴⁰, *control incidence: 1/4*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 1.5 ng/ml, country: Sierra Leone⁵⁴⁰, *underweight ca. incidence: 5/5*, sa. const.: Sierra Leone (children), no contamination with AFB₂, conc.: nd, country: Sierra Leone⁵⁴⁰, *marasmus ca.

incidence: 12/12*, sa. const.: Sierra Leone (children), no contamination with AFB₂,

conc.: nd, country: Sierra Leone⁵⁴⁰, *kwashiorkor ca.

AFLATOXIN G,

incidence: 6/11*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 11 ng/ml, country: Sierra Leone⁵⁴⁰, *control

incidence: 4/4*, sa. const.: people of Sierra Leone (children), no contamination with AFG₁, conc.: nd, country: Sierra Leone⁵⁴⁰, *underweight ca.

incidence: ?/5*, sa. const.: people of Sierra Leone (children), Ø conc.: 4 ng/ml, country: Sierra Leone ⁵⁴⁰, *marasmus ca. incidence: ?/12*, sa. const.: people of Sierra Leone (children), Ø conc.: 15 ng/ml, country: Sierra Leone ⁵⁴⁰, *kwashiorkor ca.

AFLATOXIN G,

incidence: 1/11*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 0.4 ng/ml, country: Sierra Leone⁵⁴⁰, *control

incidence: 4/4*, sa. const.: people of Sierra Leone (children), no contamination with AFG₂, conc.: nd, country: Sierra Leone⁵⁴⁰, *underweight ca.

incidence: ?/5*, sa. const.: people of Sierra Leone (children), conc.: 2 ng/ml, country: Sierra Leone⁵⁴⁰, marasmus ca. incidence: 0.3?/12*, sa. const.: Sierra Leone (children), conc.: ?, country Sierra Leone⁵⁴⁰, *kwashiorkor ca.

AFLATOXIN M,

incidence: 2/5*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 20–86 ng after 9 days**, country: Kenya/UK³¹, *kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article incidence: 2/7*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 190–505 ng after 9 days**, country: Kenya/UK⁵¹, *marasmic kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article

incidence: 3/11*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 1.6 ng/ml, country: Sierra Leone⁵⁴⁰, *control incidence: 4/4*, sa. const.: people of Sierra Leone (children), no contamination with AFM₁, conc.: nd, country Sierra Leone⁵⁴⁰, *underweight ca.

incidence: 1/5*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 0.6 ng/ml, country: Sierra Leone⁵⁴⁰, *marasmus ca.

incidence: 7/12*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 2.7 ng/ml, country: Sierra Leone⁵⁴⁰, *kwashiorkor ca.

AFLATOXIN M,

incidence: 4/5*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 515–52,522 ng after 9 days**, country: Kenya/UK⁹¹, *kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article

incidence: 2/7*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 173–14,936 ng after 9 days**, country: Kenya/UK⁹¹, *marasmic kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article

incidence: 6/11*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 3.7 ng/ml, country: Sierra Leone⁵⁴⁰, *control incidence: 1/4*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 0.1 ng/ml, country: Sierra Leone⁵⁴⁰, *underweight ca.

incidence: 1/5*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 0.6 ng/ml, country: Sierra Leone⁵⁴⁰, *marasmus ca.

incidence: 5/12*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 1.1 ng/ml, country: Sierra Leone⁵⁴⁰, *kwashiorkor ca.

OCHRATOXIN A

incidence: 1/11*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 1.6 ng/ml, country: Sierra Leone⁵⁴⁰, *control incidence: 1?/4*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 2 ng/ml, country: Sierra Leone⁵⁴⁰, *underweight ca. incidence: 1?/5*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 8.3 ng/ml, country: Sierra Leone⁵⁴⁰, *marasmus ca. incidence: 5/12*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 2.5 ng/ml, country:

4-HYDROXYOCHRATOXIN A

Sierra Leone⁵⁴⁰, *kwashiorkor ca.

incidence: 1/11*, sa. const.: people of

Sierra Leone (children), contamination: natural, conc.: 1.0 ng/ml, country: Sierra Leone⁵⁴⁰, *control incidence: 1/4*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 1.2 ng/ml, country: Sierra Leone⁵⁴⁰, *underweight ca. incidence: 2/5*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 0.1 ng/ml, country: Sierra Leone⁵⁴⁰, *marasmus ca. incidence: 7/12*, sa. const.: people of Sierra Leone (children), contamination:

natural, Ø conc.: 0.4 ng/ml, country:

Sierra Leone⁵⁴⁰, *kwashiorkor ca.

OCHRATOXIN B

incidence: 2/11*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 8.4 ng/ml, country: Sierra Leone⁵⁴⁰, *control incidence: 1/4*, sa. const.: people of Sierra Leone (children), contamination: natural, conc.: 31 ng/ml, country: Sierra Leone⁵⁴⁰, *underweight ca. incidence: 4/5*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 27 ng/ml, country: Sierra Leone⁵⁴⁰, *marasmus ca.

incidence: 7/12*, sa. const.: people of Sierra Leone (children), contamination: natural, Ø conc.: 29 ng/ml, country: Sierra Leone 540, *kwashiorkor ca.

incidence: 99/99*, sa. const.: people of the

Human urine may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

UK (male volunteers), age: 17-40 years, no contamination with AFL, conc.: nd, country: UK117, *control incidence: 1/133, sa. const.: people of The Netherlands and UK (heroin abusers), contamination: natural, conc.: 0.32 nmol/l, country: UK117, pos. sa. from people of The Netherlands and the UK incidence: 1/12, sa. const.: people of The Sudan (children), contamination: natural, conc.: 36 pg/ml, country: UK/The Sudan¹³⁴ incidence: 68/110, sa. const.: people of Sierra Leone (females), age: 5-14 years, contamination: natural, conc. range: 0.05-8.9 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season incidence: 35/93, sa. const.: people of Sierra Leone (females), age: 5-14 years, contamination: natural, conc. range: 0.1-9.0 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season incidence: 83/134, sa. const.: people of Sierra Leone (males), age: 5-14 years, contamination: natural, conc. range: 0.04-14.2 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season incidence: 52/97, sa. const.: people of Sierra Leone (males), contamination: natural, conc. range: 0.02-7.2 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season incidence: 14/30, sa. const.: people of Sierra Leone (male children), contamination: natural, conc. range: 0.02-14.0 ng/ml, country: Sierra Leone⁵⁴⁰ incidence: 15/24, sa. const.: people of Sierra Leone (female children),

contamination: natural, conc. range: 0.02–1.4 ng/ml, country: Sierra Leone⁵⁴⁰

AFLATOXIN B, incidence: 71/317*, sa. const.: people of the People's Republic of China (males), age: mostly 45-64 years, contamination: natural, conc. range: ?, country: People's Republic of China/USA12, *thereof 50 HCC ca. (contaminated: 56 control and 15 HCC ca., for detailed information please see the article) incidence: 49/317*, sa. const.: people of the People's Republic of China (males), age: mostly 45-64 years, contamination: natural, conc. range: 0.3-1.81 ng/ml**, country: People's Republic of China/ USA12, *thereof 50 HCC ca. (contaminated: 31 control and 18 HCC ca., for detailed information please see the article), **AFB,-N7-Gua adducts incidence: 34/85*, sa. const.: people of Taiwan (males), age: 33-66 years, contamination: natural, Ø conc.: 0.52 ng/ml**, country: Taiwan, Republic

carriers, **AFB₁- N^7 -Gua¹ incidence: 6/81, sa. const.: people of Kenya (3 males and 3 females af), children, age: 5–75 years, contamination: natural, conc. range: 0.3–3 pmol AFB-GuaI in 25 ml, country: USA/Kenya¹⁸

of China¹⁴, *thereof 42 asymptotic HbsAg

incidence: 4/10*, sa. const.: people of the USA (patients), contamination: natural, conc. range: 2.7–8.9 ng/ml*, country: USA¹⁹, *thereof 5 Reye's-syndrome ca. thereof 4 AFB₁-pos.

incidence: 2/10*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 86–806 pg/ml, Ø conc.: 446 pg/ml, country: The Sudan/UK³², *1 marasmic kwashiorkor and 9 marasmus ca. thereof 2 AFB₁-pos. incidence: 1/3*, sa. const.: people of The Sudan (children), contamination: natural, conc.: 667 pg/ml, country: The Sudan/UK³², *miscellaneous liver disease ca.

incidence: 29/29, sa. const.: people of the People's Republic of China (males and females), contamination: natural, conc. range: 0.01–0.03 ng/ml, country: People's Republic of China/USA⁴¹

incidence: 41/72*, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: ≤156.6 pg/mg creatinine**, median level: 7.1 pg/mg creatinine**, country: People's Republic of China/USA48, *receiving a placebo for 4 weeks, **AFB, -NAC incidence: 45/57*, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: ≤245.5 pg/mg creatinine**, median level: 18.6 pg/mg creatinine**, country: People's Republic of China/USA48, *receiving 125 mg oltipraz daily for 4 weeks, **AFB-NAC incidence: 39/60*, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: ≤189.4 pg/mg creatinine**, median level: 8.3 pg/mg creatinine**, country: People's Republic of China/USA48, *receiving 500 mg oltipraz weekly for 4 weeks, **AFB-NAC incidence: 15/108*, sa. const.: people of the USA, contamination: natural, conc. range: 5–61 ppt, Ø conc.: 13.93 ppt, country: USA51, *thereof 17 Reye's-syndrome ca. but no predominant contamination

incidence: 2/5*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 726–1,044 ng after 9 days**, country: Kenya/UK⁹¹, *kwashiorkor ca., **total 24 h urine production calculated, for detailed information please see the article

incidence: 3/7*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 41–1,316 ng after 9 days**, country: Kenya/UK⁹¹, *marasmic kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article

incidence: 99/99*, sa. const.: people of the UK (male volunteers), age: 17–40 years,

no contamination with AFB₁, conc.: nd, country: UK¹¹⁷, *control incidence: 9/133, sa. const.: people of The Netherlands and UK (heroin abusers), contamination: natural, conc. range: 0.73–25.80 nmol/l*, country: UK¹¹⁷, *pos. sa. from people of The Netherlands and the UK

incidence: 20/96*, sa. const.: ?, contamination: natural, conc. range: 5.3–52 pg/g, country: USA/Costa Rica/Japan¹²¹, *several Reye's-syndrome ca., but no statement concerning higher contamination, indicative

incidence: 25/1,228, sa. const.: people of Zimbabwe, contamination: natural, Ø conc.: 1 ng/ml*, country: Zimbabwe¹⁵², *national average

incidence: 7/29, sa. const.: people of The Philippines, contamination: natural, conc. range: ≤4.25 ng/ml*, country: France¹⁹⁰, *AFB₁-eq.

incidence: 24/27, sa const.: people of the People's Republic of China (males and females), contamination: natural, conc. range: 6.6–494.9 ng/24-h*, Ø conc.: 103.6 ng/24-h*, country: People's Republic of China/USA³⁸⁸, *AFB-NAC incidence: 11/27, sa const.: people of the People's Republic of China (males and females), contamination: natural, conc. range: 64.9–1,789.8 ng/24-h*, Ø conc.: 407.3 ng/24-h*, country: People's Republic of China/USA³⁸⁸, *AFB-N⁷-Gua

incidence: 47/134, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 0.6–188 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season incidence: 32/97, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 1.2–115 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season incidence: 53/110, sa. const.: people of Sierra Leone (females), age: 5–14 years,

contamination: natural, conc. range:

0.04–319 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season incidence: 38/93, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural conc range: 0.08–

Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 0.08–127 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: ?/18, sa. const.: people of India (9 male and 9 female volunteers, healthy), age: 20–40 years, weight: 45–50 kg, contamination: natural, conc. range: 9.30–13.43 ng/mg creatinine* **, country: India⁴³⁷, *AFB₁-N⁷-Gua adducts, **only 5 maize eating rurals (females) affected incidence: 24/30*, sa. const.: people of Egypt (19 male and 11 female children), age: 7–20 months, contamination: natural, conc. range: 1–15 ng/100 ml, Ø conc.: 8.29 ng/100 ml, country: Egypt⁴⁴⁷,

incidence: 13/30*, sa. const.: people of Egypt (16 male and 14 female children), age: 6–13 months, contamination: natural, conc. range: 5–9 ng/100 ml, Ø conc.: 6.92 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

*kwashiorkor ca.

incidence: 16/20, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: 0.9–7.2 pg/20 ml*, Ø conc.: 2.93 pg/20 ml*, country: USA⁴⁴⁸, *AFB₁-N⁷-Gua

incidence: ?/40*, sa. const.: people of the People's Republic of China, age: 20-55 years, contamination: natural, conc. range: 0.09-57.92 pg/mg creatinine** ***, country: USA/People's Republic of China⁴⁵¹, *control (receiving placebos for 3 months), **AFB-NAC, ***for detailed information please see the article incidence: ?/40*, sa. const.: people of the People's Republic of China, age: 20-55 years, contamination: natural, conc. range: 0.38-501.48 pg/mg creatinine** ***, country: USA/People's Republic of China451, *receiving GTP 500 mg for 3 months, **AFB-NAC, ***for detailed information please see the article

incidence: ?/40*, sa. const.: people of the People's Republic of China, age: 20–55 years, contamination: natural, conc. range: 0.30–560.30 pg/mg creatinine**
***, country: USA/People's Republic of China⁴⁵¹, *receiving GTP 1,000 mg for 3 months, **AFB-NAC, ***for detailed information please see the article

incidence: 2/40, sa. const.: people of Ghana (29 males and 11 females), age: 30–73 years, contamination: natural, Ø conc.: 7.5 ng/ml, country: Ghana⁴⁶¹ incidence: 1/50, sa. const.: people of Egypt (children), age: 1–2.5 years,

contamination: natural, conc.: 189 pg/ml, country: Finland/UK/Egypt/Republic of Guinea⁴⁸¹

incidence: 8/50, sa. const.: people of the Republic of Guinea (children), age: 2–4 years, contamination: natural, conc. range: 179–18,000 pg/ml, Ø conc.: 2,682 pg/ml?, country: Finland/UK/Egypt/Republic of Guinea⁴⁸¹

incidence: 6/50, sa. const.: people of Singapore (male volunteers), age: 20–66 years, contamination: natural, conc. range: 185–2,300 pg/ml*, country: Singapore/France⁴⁹⁶, *AFB₁-eq. incidence: 8/30, sa. const.: people of Sierra Leone (male children), contamination: natural, conc. range: 0.7–53.0 ng/ml, country: Sierra Leone⁵⁴⁰

incidence: 9/24, sa. const.: people of Sierra Leone (female children), contamination: natural, conc. range: 0.6–54.1 ng/ml, country: Sierra Leone⁵⁴⁰

incidence: 34/86, sa. const.: people of Taiwan, age: 33–66 years, contamination: natural, conc. range: 0.10–6.06 ng/mg* **, country: Taiwan, Republic of China⁵⁷¹, *AFB₁-N⁷-Gua¹, **19 of 43 HbsAg carriers and 15 of 43 HbsAg non-carriers pos. for AFB₁

incidence: 5/161, sa. const.: people of Nigeria, contamination: natural, Ø conc.: 2.87 ng/100 ml (mean value), country: USA/Nigeria⁵⁹⁶

AFLATOXIN B,

incidence: 1/15*, sa.*1 const.: people of The Sudan (children), contamination: natural, conc.: 56 pg/ml, country: The Sudan/UK³², *kwashiorkor ca incidence: 1/10*, sa. const.: people of The Sudan (children), contamination: natural, conc.: 46 pg/ml, country: The Sudan/UK³², *1 marasmic kwashiorkor and 9 marasmus ca. thereof 1 AFB₂-pos.

incidence: 1/7*, sa. const.: people of Kenya (children), contamination: natural, conc.: 1 ng after 9 days**, country: Kenya/UK⁹¹, *marasmic kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article

incidence: 2/99*, sa. const.: people of the UK (male volunteers), age: 17–40 years, contamination: natural, conc. range: 0.13–0.24 nmol/l, Ø conc.: 0.185 nmol/l, country: UK¹¹⁷, *control incidence: 8*/133, sa. const.: people of The Netherlands and UK (heroin abusers), contamination: natural, conc. range: 0.09–1.53 nmol/l, country: UK¹¹⁷, *pos. sa. from people of The Netherlands and the UK

incidence: 25/1,228, sa. const.: people of Zimbabwe, contamination: natural, Ø conc.: 1 ng/ml*, country: Zimbabwe¹⁵², *national average

incidence: 40/134, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 0.01–15.5 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season incidence: 9/97, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 0.2–48 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season incidence: 18/110, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 0.2–152 ng/ml*, country: Sierra Leone⁴⁰¹,

*in dry season

incidence: 19/93, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 0.1–12 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 6/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 2–4 ng/100 ml, Ø conc.: 2.67 ng/100 ml, country: Egypt⁴⁴⁷, *kwashiorkor ca.

incidence: 1/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc.: 2 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

incidence: 5/50, sa. const.: people of Egypt (children), age: 1–2.5 years, contamination: natural, conc. range: 0.8–2.2 pg/ml, Ø conc.: 1.4 pg/ml, country: Finland/UK/Egypt/Republic of Guinea⁴⁸¹

incidence: 29/50, sa. const.: people of the Republic of Guinea (children), age: 2–4 years, contamination: natural, conc. range: 0.6–43 pg/ml, Ø conc.: 5.7 pg/ml, country: Finland/UK/Egypt/Republic of Guinea⁴⁸¹

incidence: 2/30, sa. const.: people of Sierra Leone (male children), contamination: natural, conc. range: 4.4–6.3 ng/ml, Ø conc.: 5.35 ng/ml, country: Sierra Leone⁵⁴⁰ incidence: 1/24, sa. const.: people of Sierra Leone (female children), contamination: natural, conc.: 1.8 ng/ml, country: Sierra Leone⁵⁴⁰

incidence: 37/241, sa. const.: people of Thailand (males and females), age: 30–40 years, contamination: natural, conc. range: 50–4,776 ng AFB₁ eq/ml, country: Thailand/France⁵⁶²

Aflatoxin B_{2a}

incidence: 12/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 1–9 ng/100 ml, Ø conc.:

3.58 ng/100 ml, country: Egypt⁴⁴⁷, *kwashiorkor ca. incidence: 3/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural,

Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc. range: 2–4 ng/100 ml, Ø conc.: 3.00 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

incidence: 72/161, sa. const.: people of Nigeria, contamination: natural, Ø conc.: 0.60 ng/100 ml (mean value), country: USA/Nigeria⁵⁹⁶

AFLATOXIN B

incidence: 7/74*, sa. const.: people of India (children: healthy), age: 1–5 years, contamination: natural, conc. range: 0.02–0.05 µg/day, country: India³, *control

incidence: 15/255*, sa. const.: people of India (children), age: 1–5 years, contamination: natural, conc. range: 0.02–0.05 µg/day, country: India³, *Indian childhood cirrhosis ca.

AFLATOXIN G,

incidence: 1/5*, sa. const.: people of Kenya (children), contamination: natural, conc.: 98 ng after 9 days**, country: Kenya/UK⁹¹, *kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article

incidence: 282/1,228, sa. const.: people of Zimbabwe, contamination: natural, Ø conc.: 9 ng/ml*, country: Zimbabwe¹⁵², *national average

incidence: 51/134, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 2.9–169 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season

incidence: 27/97, sa. const.: people of Sierra Leone (males), contamination: natural, conc. range: 0.8–57.4 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season incidence: 42/110, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range:

0.4–138 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season

incidence: 18/93, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 1.0– 150 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 18/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 1–11 ng/100 ml, Ø conc.: 4.78 ng/100 ml, country: Egypt⁴⁴⁷, *kwashiorkor ca.

incidence: 7/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc. range: 2–8 ng/100 ml, Ø conc.: 3.57 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

incidence: 17/40, sa. const.: people of Ghana (29 males and 11 females), age: 30–73 years, contamination: natural, Ø conc.: 6.75 ng/ml, country: Ghana⁴⁶¹ incidence: 2/50, sa. const.: people of Egypt

(children), age: 1–2.5 years, contamination: natural, conc. range: 72.1–81.1 pg/ml, Ø conc.: 76.6 pg/ml,

72.1–81.1 pg/ml, Ø conc.: 76.6 pg/ml, country: Finland/UK/Egypt/Republic of Guinea⁴⁸¹

incidence: 1/50, sa. const.: people of the Republic of Guinea (children), age: 2–4 years, contamination: natural, conc.: 709 pg/ml, country: Finland/UK/Egypt/ Republic of Guinea⁴⁸¹

incidence: 2/30, sa. const.: people of Sierra Leone (male children), contamination: natural, conc. range: 23.0–39.4 ng/ml, Ø conc.: 31.2 ng/ml, country: Sierra Leone⁵⁴⁰

incidence: 3/24, sa. const.: people of Sierra Leone (female children), contamination: natural, conc. range: 0.01–17.0 ng/ml, country: Sierra Leone⁵⁴⁰

incidence: 16/161, sa. const.: people of Nigeria, contamination: natural, Ø conc.: 4.82 ng/100 ml (mean value), country: USA/Nigeria⁵⁹⁶

AFLATOXIN G,

incidence: 2/15*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 24–80 pg/g, Ø conc.: 52 pg/ml, country: The Sudan/UK³², *kwashiorkor ca.

incidence: 1/5*, sa. const.: people of Kenya (children), contamination: natural, conc.: 1 ng after 9 days**, country: Kenya/ UK⁹¹, *kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article

incidence: 184/1,228, sa. const.: people of Zimbabwe, contamination: natural, Ø conc.: 24 ng/ml*, country: Zimbabwe¹⁵², *national average

incidence: 3/134, sa. const.: people of Sierra Leone (males), age: 5-14 years, contamination: natural, conc. range: 0.1-1.5 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season incidence: 2/97, sa. const.: people of Sierra

Incidence: 2/97, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 0.2–0.7 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 110/110, sa. const.: people of Sierra Leone (females), age: 5–14 years, no contamination with AFG₂, conc.: nd*, country: Sierra Leone⁴⁰¹, *in dry season incidence: 3/93, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 1.1–2.0 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 12/50, sa. const.: people of Egypt (children), age: 1–2.5 years, contamination: natural, conc. range: 0.9–8.0 pg/ml, Ø conc.: 2.2 pg/ml, country: Finland/UK/Egypt/Guinea⁴⁸¹ incidence: 18/50, sa. const.: people of the Republic of Guinea (children), age: 2–4 years, contamination: natural, conc. range: 1.4–199 pg/ml, Ø conc.: 19.0 pg/ml, country: Finland/UK/Egypt/Republic of Guinea⁴⁸¹

AFLATOXIN G_{2a} incidence: 5/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 1–3 ng/100 ml, Ø conc.: 1.60 ng/100 ml, country: Egypt⁴⁴⁷, *kwashiorkor ca. incidence: 2/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc. range: 1–16 ng/100 ml, Ø conc.: 8.50 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

AFLATOXIN L

incidence: 15/161, sa. const.: people of Nigeria, contamination: natural, Ø conc.: 0.38 ng/100 ml (mean value), country: USA/Nigeria⁵⁹⁶

AFLATOXIN M,

incidence: 67/317*, sa. const.: people of the People's Republic of China (males), age: mostly 45–64 years, contamination: natural, conc. range: 0.17–5.2 ng/ml, country: People's Republic of China/USA¹², *thereof 50 HCC ca. (contaminated: 49 control and 18 HCC ca., for detailed information please see the article)

incidence: 2/15*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 28–484 pg/ml, Ø conc.: 256 pg/ml, country: The Sudan/UK³², *kwashiorkor ca. incidence: 2/10*, sa. const.: people of The

Sudan (children), contamination: natural, conc. range: 487–1,075 pg/ml, Ø conc.: 781 pg/ml, country: The Sudan/UK³², *1 marasmic kwashiorkor and 9 marasmus ca. thereof 2 AFM₁-pos.

9 marasmus ca. thereof 2 AFM₁-pos. incidence: ?/252, sa. const.: people of the People's Republic of China (males and females), contamination: natural, conc. range: ≤3.2 ng/ml and 0.4–4.8 µg/day, country: People's Republic of China/USA⁴¹ incidence: 58/72*, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: ≤144.8 pg/mg of creatinine, median level:

9.3 pg/mg of creatinine, country: People's Republic of China/USA48, *receiving a placebo for 4 weeks incidence: 47/57*, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: ≤70.3 pg/mg of creatinine, median level: 7.1 pg/mg of creatinine, country: People's Republic of China/USA⁴⁸, *receiving 125 mg oltipraz daily for 4 weeks incidence: 49/60*, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: ≤25.3 pg/mg of creatinine, median level: 4.6 pg/mg of creatinine, country: People's Republic of China/USA⁴⁸, *receiving 500 mg oltipraz weekly for 4 weeks incidence: 4/108*, sa. const.: people of the USA, contamination: natural, conc. range: 50–170 ppt, Ø conc.: 97.5 ppt, country: USA51, *17 Reye's syndrome ca.

incidence: 88/138, sa. const.: people of the People's Republic of China (males), age: 35–64 years, contamination: natural, conc. range: ≤108 ng/12 h, Ø conc.: 3.2 ng/12 h, country: Taiwan, Republic of China/People's Republic of China/USA⁸⁰

incidence: 21/32, sa. const.: people of Taiwan (males), age: 35–64 years, contamination: natural, conc. range: ≤17 ng/12 h, Ø conc.: 2.7 ng/12 h, country: Taiwan, Republic of China/People's Republic of China/USA⁸⁰

incidence: 2/5*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 339–580 ng/day**, country: Kenya/UK⁹¹, *kwashiorkor ca., **total 24 h urine production calculated, for detailed information please see the article

incidence: 1/7*, sa. const.: people of Kenya (children), contamination: natural, conc.: 7,775 ng after 9 days**, country: Kenya/ UK⁹¹, *marasmic kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article

incidence: 99/99*, sa. const.: people of the UK (male volunteers), age: 17–40 years, no contamination with AFM₂, conc.: nd, country: UK¹¹⁷, *control incidence: 12*/133, sa. const.: people of The Netherlands and UK (heroin abusers), contamination: natural, conc. range: 0.12–29.09 nmol/l, country: UK¹¹⁷, *pos. sa. from people of The Netherlands and the UK

incidence: 1/12, sa. const.: people of The Sudan (children), contamination: natural, conc.: 313 pg/ml, country: UK/The Sudan¹³⁴

incidence: 1,007/1,228, sa. const.: people of Zimbabwe, contamination: natural, Ø conc.: 4.2 ng/ml*, country: Zimbabwe¹⁵², *national average

incidence: 78/145, sa. const.: people of the People's Republic of China (males), Ø age: 39.2 years, contamination: natural, conc. range: >3.6–243 ng/l, country: People's Republic of China/USA²²³

incidence: 1/20, sa. const.: people of Egypt (females), contamination: natural, conc.: 3.13 ng/ml, country: Egypt³⁵²

incidence: 24/27, sa const.: people of the People's Republic of China (males and females), contamination: natural, conc. range: 0.9–1,258.0 ng/24-h, Ø conc.: 192.3 ng/24-h, country: People's Republic of China/USA³⁸⁸

incidence: 56/134, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 0.5–374 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season

incidence: 42/97, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 0.1–35 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 48/110, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 2.3–34 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season

incidence: 55/93, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 0.3–124 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 4/30*, sa. const.: people of Egypt (19 male and 11 female infants), age: 7–20 months, contamination: natural, conc. range: 1–3 ng/100 ml, Ø conc.: 2.25 ng/100 ml, country: Egypt⁴⁴⁷, *kwashiorkor ca.

incidence: 2/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6-13 months, contamination: natural, conc. range: 4-7 ng/100 ml, Ø conc.: 5.50 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

incidence: ?/40*, sa. const.: people of the People's Republic of China, age: 20-55 years, contamination: natural, conc. range: 0.24-1,276.25 pg/mg creatinine**, country: People's Republic of China⁴⁵¹, *control (receiving placebos for 3 months), **for detailed information please see the article incidence: ?/40*, sa. const.: people of the People's Republic of China, age: 20-55 years, contamination: natural, conc. range: 0.18-746.10 pg/mg creatinine**, country: People's Republic of China⁴⁵¹, *receiving GTP 500 mg for 3 months, **for detailed information please see the article incidence: ?/40*, sa. const.: people of the People's Republic of China, age: 20-55 years, contamination: natural, conc. range: 0.12-338.85 pg/mg creatinine**, country: People's Republic of China⁴⁵¹, *receiving GTP 1,000 mg for 3 months, **for detailed information please see the article incidence: 6/12*, sa. const.: people of Egypt (6 males and 6 females), contamination: natural, Ø conc.: 0.98 ng/ml, country: Egypt⁴⁵⁵, *control patients incidence: 19/46*, sa. const.: 16 women,

30 men, Ø age: 56 years, contamination:

natural, Ø conc.: 3.82 ng/ml, country:

Egypt⁴⁵⁵, *HCC patients

incidence: 11/12*, sa. const.: people of Egypt (7 males and 5 females), Ø age: 48 years, contamination: natural, Ø conc.: 43.22 ng/ml, country: Egypt⁴55, *cirrhotic patients incidence: 83/91, sa. const.: people of Ghana (males and females), age: 19–86 years?, contamination: natural, conc. range: ≤11,562.36 pg/mg creatinine*, country: USA/Ghana⁴57

incidence: 47/49*, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: 0.01–2.09 ppb, country: People's Republic of China⁴⁶², *people from high liver cancer incidence area

incidence: 48/50*, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: 0.01–0.37 ppb, country: People's Republic of China⁴⁶², *people from low liver cancer incidence area

incidence: 94/96*, sa. const.: people of the People's Republic of China (children), contamination: natural, conc. range: ≤2.09 ppb, country: People's Republic of China⁴62, *people from high liver cancer incidence area

incidence: 87/96*, sa. const.: people of the People's Republic of China (children), contamination: natural, conc. range: ≤0.61 ppb, country: People's Republic of China 462, *people from low liver cancer incidence area

incidence: 1/7, sa. const.: people of Kenya (patients: 4 males and 3 females (1 af*)), age: 10–25 years?, contamination: natural, conc.: 139 pg/ml, country: Kenya/UK⁴⁶⁶, *additionally cirrhosis

incidence: 4/50, sa. const.: people of Egypt (children), age: 1–2.5 years, contamination: natural, conc. range: 5.0–6.2 pg/ml, Ø conc.: 5.5 pg/ml, country: Finland/UK/Egypt/Republic of Guinea⁴⁸¹ incidence: 32/50, sa. const.: people of the Republic of Guinea (children), age: 2–4 years, contamination: natural, conc. range: 8.0–801 pg/ml, Ø conc.: 97.0 pg/ml, country: Finland/UK/Egypt/Guinea⁴⁸¹

incidence: 12/30, sa. const.: people of Sierra Leone (male children), contamination: natural, conc. range: 0.5–44.3 ng/ml, country: Sierra Leone⁵⁴⁰ incidence: 5/24, sa. const.: people of Sierra Leone (female children), contamination: natural, conc. range: 1.3–16.4 ng/ml, country: Sierra Leone⁵⁴⁰

incidence: 14/161, sa. const.: people of Nigeria, contamination: natural, Ø conc.: 0.69 ng/100 ml (mean value), country: USA/Nigeria⁵⁹⁶

incidence: 42/42, sa. const.: people of the People's Republic of China (30 males and 12 females), age: 25–64 years, contamination: natural, conc. range: ≈≤3.25 µg/3 days, country: USA/People's Republic of China⁶⁰⁷

AFLATOXIN M,

incidence: 1/15*, sa. const.: people of The Sudan (children), contamination: natural, conc.: 156 pg/ml, country: The Sudan/UK³², *kwashiorkor ca.

incidence: 1/5*, sa. const.: people of Kenya

(children), contamination: natural, conc.:

108 ng after 9 days**, country: Kenya/ UK⁹¹, *kwashiorkor ca., **total excretion after 9 days, for detailed information please see the article incidence: 2/7*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 239–4,710 ng after 9 days**, country: Kenya/UK⁹¹, *marasmic kwashiorkor ca., **total 24 h urine production calculated (cumulative extraction after 9 days), for detailed information please see the article incidence: 99/99*, sa. const.: people of the UK (male volunteers), age: 17–40 years,

no contamination with AFM $_2$, conc.: nd, country: UK 117 , *control incidence: 6*/133, sa. const.: people of The Netherlands and UK (heroin abusers), contamination: natural, conc. range: 0.4–1.88 nmol/l, country: UK 117 , *pos. sa. from people of The Netherlands and the UK

incidence: 71/134, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 4.5–130 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season

incidence: 62/97, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 1.3–41.3 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 48/110, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 4.5–94 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season

incidence: 66/93, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 5.1–86 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 2/7, sa. const.: people of Kenya (patients: 4 males (2 af*) and 3 females), age: 10–25 years?, contamination: natural, conc. range: 36–241 pg/ml, Ø conc.: 138.5 pg/ml, country: Kenya/UK⁴⁶⁶, *additionally cirrhosis or HCC incidence: 19/30, sa. const.: people of Sierra Leone (male children), contamination: natural, conc. range: 1.2–26.0 ng/ml, country: Sierra Leone⁵⁴⁰ incidence: 16/24, sa. const.: people of Sierra Leone (female children), contamination: natural, conc. range: 0.5–32.0 ng/ml, country: Sierra Leone⁵⁴⁰

AFLATOXIN P.

incidence: 53/317*, sa. const.: people of the People's Republic of China (males), age: mostly 45–64 years, contamination: natural, conc. range: 0.59–16.0 ng/ml, country: People's Republic of China/USA¹², *thereof 50 HCC ca. (contaminated: 39 control and 14 HCC ca., for detailed information please see the article) incidence: 8/27, sa. const.: people of the People's Republic of China (males and females), contamination: natural, conc.

range: 80.4-3,569.7 ng/24-h, Ø conc.:

664.9 ng/24-h, country: People's Republic of China/USA³⁸⁸

AFLATOXIN P

incidence: 30/30*, people of Egypt (19 male and 11 female infants), age: 7–20 months, no contamination with AFP, conc.: nd, country: Egypt⁴⁴⁷, *kwashiorkor ca.

incidence: 1/30*, sa. const.: people of Egypt (16 male and 14 female infants), age: 6–13 months, contamination: natural, conc.: 2 ng/100 ml, country: Egypt⁴⁴⁷, *marasmus ca.

AFLATOXIN Q

incidence: 7/27, sa. const.: people of the People's Republic of China (males and females), contamination: natural, conc. range: 77.3–137.5 ng/24-h, Ø conc.: 92.2 ng/24-h, country: People's Republic of China/USA³⁸⁸

AFLATOXIN

incidence: ?/people from 48 counties?, sa. const.: people of the People's Republic of China (males), contamination: natural, conc. range: 0-611 ng/kg/4 h, country: USA/People's Republic of China⁷ incidence: 42?/42, sa. const.: people of the People's Republic of China (30 males and 12 females), age: 25-64 years, 3.3-6.6 µg/day* (mean value), country: USA/People's Republic of China²⁵, *total AF-metabolites incidence: ?/12, sa. const.: people of the People's Republic of China (females), Ø age: 44.8 years, contamination: natural, conc.: 13.09 µg*/collection period** (mean value), country: USA/People's Republic of China²⁵, *total AF-metabolites, **3 days incidence: ?/30, sa. const.: people of the People's Republic of China (males), Ø age: 46.6 years, contamination: natural, conc.: 12.98 μg*/collection period** (mean value), country: USA/People's Republic of China25, *total AF metabolites, **3 days

incidence: ?/20*, sa. const.: people of The Gambia (10 males and 10 females),

age: 15-56 years, contamination: natural, conc. range: 48.2-7,099.2 ng/day**, country: USA/France/UK50, *thereof 10 HBV ca. but no predominant contamination, **AF-N7-Gua incidence: 6/8*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 3-533 pg/ml, country: Kenya/UK95, incidence: 5/11*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 6-986 pg/ml, country: Kenya/UK95, *marasmus ca. incidence: 3/5*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 60-4,425 pg/ml, country: Kenya/UK95, *marasmic kwashiorkor ca. incidence: 5/12*, sa. const.: people of Kenya (children), contamination: natural, conc. range: 40-1,370 pg/ml, country: Kenya/UK95, *kwashiorkor ca. incidence: ?/112*, sa. const.: people of Taiwan (males), contamination: natural, conc. range: 27.0-107.7 pg/ml (mean values), country: USA/Taiwan, Republic of China¹⁰⁴, *partly HBV and/or HCC incidence: ?/134*, sa. const.: people of Taiwan (females), contamination: natural, conc. range: 20.3-61.9 pg/ml (mean values), country: USA/Taiwan, Republic of China¹⁰⁴, *partly HBV and/or HCC incidence: 64/65, sa. const.: people of The Philippines (children), age: 0.08-12 years, weight for height: 6.6-23.1 kg/m, contamination: natural, conc. range: 0.1-4.77 ng/ml*, country: UK/The Philippines⁴⁶⁰, *AF-metabolites incidence: 53/87*, sa. const.: people of the People's Republic of China (males and females), age: 25-65 years, contamination: natural, conc. range: <LOD-4.10 pg adduct/mg creatinine**, country: USA/ People's Republic of China⁴⁹⁵, *ingesting placebos for 4 months (for detailed information please see the article), **AF-N7-Gua incidence: 52/82*, sa. const.: people of the People's Republic of China

(males and females), age: 25–65 years, contamination: natural, conc. range: <LOD-0.98 pg adduct/mg creatinine**, country: USA/People's Republic of China⁴⁹⁵, *ingesting 100 mg chlorophyllin three times daily for 4 months (for detailed information please see the article), **AF-N⁷-Gua incidence: 153/2,553, sa. const.: people of Zimbabwe (outpatients, school children, farm laborers, mine workers, and middle class donors), contamination: natural, Ø conc.: 5.1 ng/ml (mean value), country: Zimbabwe⁵⁶⁹

AFLATOXINS

incidence: 21/106*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: 191 pg/ml (geometric mean), country: UK/The Sudan³⁶, *control incidence: 18/70*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: 508 pg/ml (geometric mean), country: UK/The Sudan³⁶, *marasmus ca. incidence: 8/32*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: 742 pg/ml (geometric mean), country: UK/The Sudan³⁶, *marasmic kwashiorkor ca. incidence: 14/42*, sa. const.: people of The Sudan (male and female children), contamination: natural, conc.: 143 pg/ml (geometric mean), country: UK/The Sudan³⁶, *kwashiorkor ca. incidence: 20?/20, sa. const.: people of the

incidence: 20?/20, sa. const.: people of the People's Republic of China, contamination: natural, conc. range: 0.1–10 ng/ml*, country: USA/People's Republic of China⁵⁹, *mainly AFM₁, AFB₁-N⁷-Gua², AFP₁, and AFB₁ incidence: 44/155*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 1–9 pg/ml** (1 sa), 10–99 pg/ml** (14 sa), 100–999 pg/ml** (16 sa), ≥1,000 pg/ml** (13 sa), country: UK/The Sudan⁶⁷, *control, **includes AFB₁, AFM₁, AFL

incidence: 31/114*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 1-9 pg/ml** (1 sa), 10-99 pg/ml** (10 sa), 100-999 pg/ml** $(11 \text{ sa}), \ge 1,000 \text{ pg/ml}^{**} (9 \text{ sa}), \text{ country:}$ UK/The Sudan⁶⁷, *kwashiorkor ca., **includes AFB, AFM, AFL incidence: 30/77*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 10-99 pg/ml** (9 sa), 100-999 pg/ml** (8 sa), $\geq 1,000 \text{ pg/ml**}$ (13 sa), country: UK/The Sudan⁶⁷, *marasmic kwashiorkor ca., **includes AFB, AFM, AFL incidence: 31/119*, sa. const.: people of The Sudan (children), contamination: natural, conc. range: 10-99 pg/ml** (7 sa), 100-999 pg/ml** (13 sa), ≥1,000 pg/ml** (11 sa), country: UK/The Sudan⁶⁷, *marasmus ca., **includes AFB., AFM, AFL

DEOXYNIVALENOL

incidence: 15/15, sa. const.: people of the People's Republic of China (females), age: 19–75 years, contamination: natural, conc. range: 4–94 ng/ml, Ø conc.: 30.33 ng/ml, country: UK/Canada/People's Republic of China/USA⁴¹⁵

incidence: 296/300, sa. const.: people of the UK, contamination: natural, conc. range: ≤65.97 µg/day, country: UK⁴¹⁷ incidence: 25/25*, sa. const.: people of the UK (9 males and 16 females), age: 21-59 years, height: 1.52-1.96 m, wt.: 51-93 kg, BMI: 19.2-32.0, contamination: natural, conc. range: 4.9-10.5 ng/mg creatinine, country: UK442, *wheat-based food intake (normal diet), for detailed information please see the article incidence: 9/25*, sa. const.: people of the UK (9 males and 16 females), age: 21-59 years, height: 1.52-1.96 m, wt.: 51–93 kg, BMI: 19.2–32.0, contamination: natural, conc. range: 0.4-0.9 ng/mg creatinine, country: UK442, *wheat reduction intervention, for detailed information please see the article

Fumonisin B₁ incidence: ?/75, sa. const.: people of Mexico (females), contamination: natural,

conc. range: 18.8–248.0 pg/ml, country: UK/Mexico/Germany⁵¹⁰, for detailed information please see article

OCHRATOXIN A

incidence: 1/25, sa. const.: people of Egypt (male and female humans: healthy), age: 21–49 years, contamination: natural, conc.: 0.31 ng/ml, country: Egypt/France²²⁷, for detailed information please see the article incidence: 16/67*, sa. const.: people of Egypt (males and females), age: 5-70 years, contamination: natural, conc. range: 0.43-8.19 ng/ml, country: Egypt/ France²²⁷, *renal disease ca., for detailed information please see the article incidence: 2/14*, sa. const.: people of Egypt (males and females), age: 22-50 years, contamination: natural, conc. range: 0.22-3.42 ng/ml, Ø conc.: 1.82 ng/ml, country: Egypt/France²²⁷, *potential kidney donors, for detailed information please see the article incidence: 46/50*, sa. const.: people of the UK, contamination: natural, conc. range: <0.01-0.058 ng/ml, country: UK²³⁶, *32 volunteers (normal diet?), 11 vegetarians, 7 consumed ethnic diet incidence: 2/2, sa. const.: people of France (male and female), contamination: natural, conc. range: 367-1,801 ng/ml, country: France³¹¹

incidence: 29/134, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 0.07–59 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season

incidence: 26/97, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 0.6–72.2 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 34/110, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range:

0.08–148 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season incidence: 21/93, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 0.7–4.9 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 13/60, sa. const.: people of Portugal (inhabitants of Coimbra), age: 15-67 years, contamination: natural, conc. range: 0.011-0.208 ng/ml*, country: Portugal/Spain⁴²⁶, *morning sa. (for detailed information please see the article) incidence: 14/60, sa. const.: people of Portugal (inhabitants of Coimbra), age: 15-67 years, contamination: natural, conc. range: 0.008-0.011 ng/ml*, country: Portugal/Spain⁴²⁶, *afternoon sa. (for detailed information please see the article) incidence: 25/62, sa. const.: people of Spain (inhabitants of Valencia), age: 18-53 years, contamination: natural, conc. range: 0.007-0.124 ng/ml*, country: Portugal/ Spain⁴²⁶, *morning sa. (for detailed information please see the article) incidence: 26/62, sa. const.: people of Spain (inhabitants of Valencia), age: 18-53 years, contamination: natural, conc. range: 0.008-0.089 ng/ml*, country: Portugal/Spain⁴²⁶, *afternoon sa. (for detailed information please see the

incidence: 122/155, sa. const.: people of Portugal, contamination: natural, conc. range: 0.008–0.069 ng/ml, Ø conc.: 0.022 ng/ml, country: Portugal⁴⁵⁶

incidence: 50/152*, sa. const.: people of Bulgaria, contamination: natural, conc. range: 5–604 ng/l, country: France/India/Bulgaria⁴⁶⁴, *control families and BEN/UTT affected people (for detailed information please see the article) incidence: 54/88, sa. const.: people of Hungary (healthy humans: 46 males (29 af) and 42 females (25 af)), age: 8–80 years, contamination: natural, conc. range: 0.006–0.065 ng/ml, Ø conc.: 0.013 ng/ml,

country: Hungary472 (for detailed information please see the article) incidence: 42/60, sa. const.: people of Portugal (34 males and 26 females), age: 19-82 years, contamination: natural, conc. range: 0.021-0.105 ng/ml, country: Portugal/Czech Republic⁵⁰⁵ incidence: 8/24*, sa. const.: people of the UK (males and females), age: 18-55 years, contamination: natural, conc. range: LOD/LOQ-0.058 µg/l, country: EU508, *eating normal diet incidence: 4/7*, sa. const.: people of the UK (males and females), age: 18-55 years, contamination: natural, conc. range: LOD/LOQ-0.023 µg/l, country: EU⁵⁰⁸, *eating ethnic diet incidence: 2/9*, sa. const.: people of the UK (males and females), age: 18-55 years, contamination: natural, conc. range: LOD/LOQ-0.054 μg/l, country: EU⁵⁰⁸, *vegetarians

incidence: 22/38*, sa. const.: people of Italy, contamination: natural, conc. range: 0.012–0.046 ng/ml, country: Italy⁵¹³, *healthy individuals incidence: 3/3*, sa. const.: people of Italy, contamination: natural, conc. range: ≤1.40 ng/ml, country: Italy⁵¹³, *KIN patients

incidence: 5/5, sa. const.: people of Bulgaria (volunteer inhabitants of Gorno Peshtene, healthy), age: 20–30 years, contamination: natural, conc. range: 16–98 ng/l*, Ø conc.: 50.8 ng/l*, country: Bulgaria/France⁵³⁸, *measured for 4 weeks (for detailed information please see the article)

incidence: 11/11, sa. const.: people of Bulgaria (volunteer inhabitants of Beli Izvor, healthy), age: 20–30 years, contamination: natural, conc. range: 36–860 ng/l*, Ø conc.: 168.64 ng/l*, country: Bulgaria/France⁵³⁸, *measured for 4 weeks (for detailed information please see the article)

incidence: 10/30, sa. const.: people of Sierra Leone (male children),

contamination: natural, conc. range: 0.3–26.6 ng/ml, country: Sierra Leone⁵⁴⁰ incidence: 3/24, sa. const.: people of Sierra Leone (female children), contamination: natural, conc. range: 0.7–16.0 ng/ml, country: Sierra Leone⁵⁴⁰

incidence: 16/22, sa. const.: people of Portugal (male inhabitants of Lisbon), contamination: natural, conc. range: nd-0.071 ng/ml, country: Portugal⁵⁸⁰ incidence: 15/21, sa. const.: people of Portugal (female inhabitants of Lisbon), contamination: natural, conc. range: nd-0.055 ng/ml, country: Portugal⁵⁸⁰

4-HYDROXYOCHRATOXIN A

incidence: 50/134, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 0.1–29 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season

incidence: 28/97, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range: 0.2–37 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 41/110, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 0.1–1.47 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season

incidence: 48/93, sa. const.: people of Sierra Leone (females), age: 5–14 years, contamination: natural, conc. range: 0.2–33 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 12/30, sa. const.: people of Sierra Leone (male children), contamination: natural, conc. range: 0.04–21.0 ng/ml, country: Sierra Leone⁵⁴⁰ incidence: 12/24, sa. const.: people of Sierra Leone (female children), contamination: natural, conc. range: 0.1–18.0 ng/ml, country: Sierra Leone⁵⁴⁰

OCHRATOXIN B

incidence: 64/134, sa. const.: people of Sierra Leone (males), age: 5–14 years, contamination: natural, conc. range:

0.4-218 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season incidence: 31/97, sa. const.: people of Sierra Leone (males), age: 5-14 years, contamination: natural, conc. range: 0.05-45 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season incidence: 51/110 sa. const.: people of Sierra Leone (females), age: 5-14 years, contamination: natural, conc. range: 0.6-124 ng/ml*, country: Sierra Leone⁴⁰¹, *in dry season incidence: 41/93, sa. const.: people of Sierra Leone (females), age: 5-14 years, contamination: natural, conc. range: 0.06-81 ng/ml*, country: Sierra Leone⁴⁰¹, *in rainy season

incidence: 7/30, sa. const.: people of Sierra Leone (male children), contamination: natural, conc. range: 0.4–37.1 ng/ml, country: Sierra Leone⁵⁴⁰ incidence: 4/24, sa. const.: people of Sierra

Incidence: 4/24, sa. const.: people of Sierra Leone (female children), contamination: natural, conc. range: 2.0–33.3 ng/ml, country: Sierra Leone⁵⁴⁰

Human Artificial Contamination

Human blood may contain the following mycotoxins and/or their metabolites:

DIACETOXYSCIRPENOL

incidence: 1/44*, sa. const.: people of Kampuchea (Cambodia)/Laos, contamination: artificial**, conc.: 5 ppb, country: USA²⁸⁸, *human victims of chemical warfare, **strong indication

incidence: 4/7, sa. const.: people of Iran (soldiers), contamination: artificial*, conc. range: 0.38–0.70 ppm, Ø conc.: 0.54 ppm, country: Belgium⁴⁹⁸, *very strong indication

HT-2 Toxin

incidence: 2/2*, sa. const.: people of Kampuchea (Cambodia), contamination: artificial, conc. range: 10–22 ppb, Ø conc.: 16 ppb, country: USA¹⁹⁴, *Yellow Rain victims

incidence: 2/4*, sa. const.: people of Kampuchea (Cambodia)/Laos, contamination: artificial**, conc. range: tr, country: USA²⁸⁸, *victims exposed to biological warfare chemicals, **strong indication

incidence: 11/44*, sa. const.: people of Kampuchea (Cambodia)/Laos, contamination: artificial**, conc. range: 2–296.1 ppb, Ø conc.: 50.36 ppb, country: USA²⁸⁸, *human victims of chemical warfare, **strong indication

incidence: 2/2*, sa. const.: people of Laos (1 male and 1 female), contamination: artificial**, conc. range: 19.2–21.1 ppb, Ø conc.: 20.15 ppb, country: USA⁴⁹⁷, *victims of chemical attack, **strong indication

NIVALENOL

incidence: 3/7, sa. const.: people of Iran (soldiers), contamination: artificial*, conc. range: 0.11–0.15 ppm, Ø conc.: 0.136 ppm, country: Belgium⁴⁹⁸, *very strong indication

T-2 Toxin

incidence: 2/2*, sa. const.: people of Kampuchea (Cambodia), contamination: artificial, conc. range: 11–18 ppb, Ø conc.: 14.5 ppb, country: USA¹⁹⁴, *Yellow Rain victims

incidence: 17/44*, sa. const.: people of Kampuchea (Cambodia)/Laos, contamination: artificial**, conc. range: 1.4–110.4 ppb, Ø conc.: 34.04 ppb, country: USA²⁸⁸, *human victims of chemical warfare, **very strong indication

incidence: 2/2*, sa. const.: people of Laos (1 male and 1 female), contamination: artificial*, conc. range: 14.5–66.95 ppb, Ø conc.: 40.725 ppb, country: USA⁴⁹⁷, *victims of chemical attack, **strong indication

incidence: 1/7, sa. const.: people of Iran (soldiers), contamination: artificial*, conc.: 0.41 ppm, country: Belgium⁴⁹⁸, *very strong indication

VERRUCAROL

incidence: 3/7, sa. const.: people of Iran (soldiers), contamination: artificial*, conc. range: 0.07–0.33 ppm, Ø conc.: 0.23 ppm, country: Belgium⁴⁹⁸, *very strong indication

Human esophagus may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 1/1*, sa. const.: person of Kampuchea (Cambodia)/Laos, contamination: artificial**, conc.: 4.02 ppm, country: USA²⁸⁸, *victim of chemical attack, **strong indication

T-2 Toxin

incidence: 1/1*, sa. const.: person of Kampuchea (Cambodia)/Laos, contamination: artificial**, conc.: 25.1 ppb, country: USA²⁸⁸, *victim of chemical attack, **strong indication

Human feces may contain the following mycotoxins and/or their metabolites:

VERRUCAROL

incidence: 1/1, sa. const.: person of Iran (soldier), contamination: artificial*, conc.: 0.30 ppm, country: Belgium⁴⁹⁸, *very strong indication

Human heart may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 1/1*, sa. const.: person of Kampuchea (Cambodia), contamination: artificial**, conc.: 1.2 ppm, country: USA¹⁹⁴, *victim of chemical attack, **strong indication

Human intestine may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 1/1* **, sa. const.: person of Kampuchea (Cambodia), contamination: artificial***, conc.: 9.6 ppb, country: USA¹⁹⁴, *large intestine, **victim of chemical attack, ***strong indication

T-2 Toxin

incidence: 1/1* **, sa. const.: person of Kampuchea (Cambodia), contamination: artificial***, conc.: 88.0 ppb, country: USA¹⁹⁴, *large intestine, **victim of chemical attack, ***strong indication

Human kidney may contain the following mycotoxins and/or their metabolites:

DIACETOXYSCIRPENOL

incidence: 1/1*, sa. const.: person of Kampuchea (Cambodia), contamination: artificial**, conc.: 2.55 ppm, country: USA¹⁹⁴, *victim of chemical attack, **strong indication

T-2 Toxin

incidence: 1/1*, sa. const.: person of Kampuchea (Cambodia), contamination: artificial**, conc.: 6.8 ppb, country: USA¹⁹⁴, *victim of chemical attack, **strong indication

Human lung may contain the following mycotoxins and/or their metabolites:

T-2 Toxin

incidence: 1/1*, sa. const.: sa. const.: person of Kampuchea (Cambodia), contamination: artificial**, conc.: 8.5 ppb, country: USA¹⁹⁴, *victim of chemical attack, **strong indication

Human stomach may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin incidence: 1/1*, sa. const.: person of Kampuchea (Cambodia),

contamination: artificial**, conc.: 4.02 ppm, country: USA¹⁹⁴, *victim of chemical attack, **strong indication

T-2 TOXIN

incidence: 1/1*, sa. const.: person of Kampuchea (Cambodia), contamination: artificial**, conc.: 25.1 ppb, country: USA¹⁹⁴, *victim of chemical attack, **strong indication

Human urine may contain the following mycotoxins and/or their metabolites:

DIACETOXYSCIRPENOL

incidence: 1/6, sa. const.: people of Iran (soldiers), contamination: artificial*, conc.: 0.22 ppm, country: Belgium⁴⁹⁸, *very strong indication

HT-2 Toxin

incidence: 1/2*, sa. const.: people of Kampuchea (Cambodia), contamination: artificial, conc.: 18 ppb, country: USA¹⁹⁴, *Yellow Rain victims incidence: 3/3*, sa. const.: people of Kampuchea (Cambodia)/Laos, contamination: artificial**, conc. range: 1.3–7.4 ppb, Ø conc.: 3.5 ppb, country: USA²⁸⁸, *victims of chemical warfare, **strong indication

incidence: 1/1*, sa. const.: person of Kampuchea (Cambodia) (male), contamination: artificial, conc.: 18 ppb, country: USA⁴⁹⁷, *victim of chemical attack

incidence: 2/6, sa. const.: people of Iran (soldiers), contamination: artificial*, conc. range: 0.07–0.13 ppm, Ø conc.: 0.10 ppm, country: Belgium⁴⁹⁸, *very strong indication

NIVALENOL

incidence: 2/6, sa. const.: people of Iran (soldiers), contamination: artificial*, conc. range: 0.09–0.16 ppm, Ø conc.: 0.125 ppm, country: Belgium⁴⁹⁸, *very strong indication

56 Buffalo

T-2 Toxin

incidence: 1/2*, sa. const.: people of Kampuchea (Cambodia), contamination: artificial, conc.: tr, country: USA¹⁹⁴, *Yellow Rain victims incidence: 3/3*, sa. const.: people of Kampuchea (Cambodia)/Laos, contamination: artificial**, conc. range: 4.0–22.0 ppb, Ø conc.: 10.33 ppb, country: USA²⁸⁸, *victims of chemical warfare, **strong indication

incidence: 1/1*, sa. const.: person of Kampuchea (Cambodia) (male), contamination: artificial, conc.: tr, country: USA⁴⁹⁷, *victim of chemical attack

incidence: 1/6, sa. const.: people of Iran (soldiers), contamination: artificial*, conc.: 0.18 ppm, country: Belgium⁴⁹⁸, *very strong indication

VERRUCAROL

incidence: 3/6, sa. const.: people of Iran (soldiers), contamination: artificial*, conc. range: 0.07–0.14 ppm, Ø conc.: 0.103 ppm, country: Belgium⁴⁹⁸, *very strong indication

Barrow see Pig

Beef

Beef Natural Contamination see also Steer

Beef liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: ?/?, sa. const.: livers from beefs of the USA?, contamination: probably natural, conc.: 0.72 ng/g, country: USA⁷⁵

AFLATOXIN G₁ incidence: ?/?, sa. const.: livers from beefs of the USA?, contamination: probably natural, conc.: 0.21 ng/g, country: USA⁷⁵

AFLATOXIN M,

incidence: ?/?, sa. const.: livers from beefs of the USA?, contamination: probably natural, conc.: 0.25 ng/g, country: USA⁷⁵

Boar see Pig

Bovine see Cattle, Cow or Steer

Bovine Milk see Cow milk

Bovine Udder see Cattle udder

Broiler see Chicken

Broiler Chicken see Chicken

Buffalo

Buffalo Natural Contamination

Buffalo milk, raw may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M,

incidence: 59/66, sa. const.: milk from buffaloes of India, contamination: natural, conc. range: 0.074*-0.076** µg/l (mean values), country: India⁴³, *bulk, **individual

incidence: 60/207, sa. const.: milk from buffaloes of Italy, contamination: natural, conc. range: 4–676 ng/kg, country: Italy¹⁶¹

incidence: 108/116*, sa. const.: milk from buffaloes of India, contamination: natural, conc. range: 0.6–15 ng/ml (59 sa), 16–30 ng/ml (37 sa), 31–45 ng/ml (11 sa), 48 ng/ml (1 sa), country: India/UK²⁵⁷, *periurban area incidence: 2/100*, sa. const.: milk from buffaloes of India, contamination: natural,

buffaloes of India, contamination: natural, conc. range: 0.6–15 ng/ml (2 sa), country: India/UK²⁵⁷, *rural area

incidence: 65/120*, sa. const.: milk from buffaloes of Pakistan, contamination: natural, conc. range: ?, country: Pakistan²⁷⁷, *urban area incidence: 51/120*, sa. const.: milk from buffaloes of Pakistan, contamination: natural, conc. range: ?, country: Pakistan²⁷⁷, *semi-urban area incidence: 37/120*, sa. const.: milk from buffaloes of Pakistan, contamination: natural, conc. range: ?, country: Pakistan²⁷⁷, *rural area

Buffalo Artificial Contamination

Buffalo milk, raw may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M_1 incidence: 27/50, sa. const.: milk from Murrah she-buffaloes, contamination: artificial (dose: up to 3 mg AFB₁, o., daily; for detailed information please see the article), conc. range: tr-4.8 µg/l, country: India²⁷²

Calf

Calf Natural Contamination see also Cattle

Calf liver may contain the following mycotoxins and/or their metabolites:

Aflatoxin B_1 incidence: 1/3, sa. const.: Hereford calves of Australia, contamination: natural, conc.: 0.5 μ g/kg, country: Australia²⁴²

Calf Artificial Contamination

Calf feces may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A incidence: 2/2, sa. const.: Holstein-Friesian male calves, preruminant, age: 19–20 days,

wt.: 44 kg, contamination: artificial (dose: 0.25 mg crystalline OTA/kg b. wt., i.v., once; for detailed information please see the article), conc. range: 1.62* **-4.90** mg, country: Canada179, *incomplete feces collection, **cumulative excretion incidence: 2/2, sa. const.: Holstein-Friesian male calves, preruminant, age: 16-21 days, wt.: 60 kg, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: 2.35-2.99 mg*, Ø conc.: 2.67 mg*, country: Canada¹⁷⁹, *cumulative excretion incidence: 4/4, sa. const.: Holstein-Friesian male calves, ruminant, age: 46-69 days, wt.: 68-100 kg, contamination: artificial (dose: 2 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≤3.6 mg*, country: Canada¹⁷⁹, *cumulative excretion

Ochratoxin α

incidence: 2/2, sa. const.: Holstein-Friesian male calves, preruminant, age: 19-20 days, wt.: 44 kg, contamination: artificial (dose: 0.25 mg crystalline OTA/ kg b. wt., i.v., once; for detailed information please see the article), conc.: nd*, country: Canada¹⁷⁹, *cumulative excretion incidence: 2/2, sa. const.: Holstein-Friesian male calves, preruminant, age: 16-21 days, wt.: 60 kg, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc.: nd*, country: Canada179, *cumulative excretion incidence: 4/4, sa. const.: Holstein-Friesian male calves, ruminant, age: 46-69 days, wt.: 68-100 kg, contamination: artificial (dose: 2 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≤30.0 mg*, country: Canada¹⁷⁹, *cumulative excretion

Calf kidney may contain the following mycotoxins and/or their metabolites:

58 Calf

AFLATOXIN M,

incidence: 6/6*, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: no OTA and/or AFB₁ (for detailed information please see the article), conc.: nd, country: UK/USA²¹⁰, *control incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 155 mg OTA (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd* country: UK/USA²¹⁰

OTA (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/USA²¹⁰, *after 87 days of experimental period incidence: 4/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 143 mg OTA + 4.04 mg AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc. range: tr-0.03 µg/kg*, country: UK/USA²¹⁰, *after 87 days of experimental period incidence: 5/6, sa. const.: Friesian male

calves, age: \approx 12 weeks, wt.: \approx 80 kg, contamination: artificial (dose: 3.87 mg AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc. range: tr-0.03 μ g/kg*, country: UK/USA²¹⁰, *after 87 days of experimental period

OCHRATOXIN A

incidence: 6/6*, sa. const.: Friesian male calves, age: ≈12 weeks, wt: ≈80 kg, contamination: no OTA and/or AFB₁ (for detailed information please see the article), conc.: nd, country: UK/USA²¹⁰, *control

incidence: 3/6, sa. const.: Friesian male calves, age: \approx 12 weeks, wt.: \approx 80 kg, contamination: artificial (dose: 155 mg OTA (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc. range: tr-5 μ g/kg*, country: UK/USA²¹⁰, *after 87 days of experimental period incidence: 2/6, sa. const.: Friesian male calves, age: \approx 12 weeks, wt.: \approx 80 kg,

contamination: artificial (dose: 143 mg

OTA + 4.04 mg AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc. range: tr-5 µg/kg*, country: UK/USA²¹⁰, *after 87 days of experimental period

incidence: 6/6, sa. const.: Friesian male calves, age: \approx 12 weeks, wt.: \approx 80 kg, contamination: artificial (dose: **3.87 mg** AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/ USA²¹⁰, *after 87 days of experimental period

Ochratoxin α

incidence: 6/6*, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: no OTA and/or AFB₁ (for detailed information please see the article), conc.: nd, country: UK/USA²¹⁰, *control

incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 155 mg OTA (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc. range: tr−10 μg/kg*, country: UK/USA²¹⁰, *after 87 days of experimental period

incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose:

143 mg OTA + 4.04 mg AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc. range: tr-10 μg/kg*, country: UK/USA²¹⁰, *after 87 days of experimental period

incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 3.87 mg AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/USA²¹⁰, *after 87 days of experimental period

Calf liver may contain the following mycotoxins and/or their metabolites:

Calf 59

AFLATOXIN B,

incidence: 6/6*, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: no OTA and/or AFB₁ (for detailed information please see the article), conc.: nd, country: UK/USA²¹⁰, *control

incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 155 mg OTA (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/USA²¹⁰, *after 87 days of experimental period

incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 143 mg OTA + 4.04 mg AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/USA²¹⁰, *after 87 days of experimental period incidence: 1/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 3.87 mg AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: tr*, country: UK/USA²¹⁰, *after 87 days of experimental period

AFLATOXIN M,

incidence: 6/6*, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: no OTA and/or AFB₁ (for detailed information please see the article), conc.: nd, country: UK/USA²¹⁰, *control

incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 155 mg OTA (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/USA²¹⁰, *after 87 days of experimental period

incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 143 mg

OTA + 4.04 mg AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/USA²¹⁰, *after 87 days of experimental period incidence: 1/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 3.87 mg AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: tr*, country: UK/USA²¹⁰, *after 87 days of experimental period

Calf muscle may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 6/6*, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: no OTA and/or AFB₁ (for detailed information please see the article), conc.: nd, country: UK/USA²¹⁰, *control

incidence: 6/6, sa. const.: Friesian male calves, age: \approx 12 weeks, wt.: \approx 80 kg, contamination: artificial (dose: 155 mg OTA (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/USA²¹⁰, *after 87 days of experimental period

incidence: 1/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose:

143 mg OTA + 4.04 mg AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: tr*, country: UK/USA²¹⁰, *after 87 days of experimental period

incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: **3.87 mg** AFB₁ (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/USA²¹⁰, *after 87 days of experimental period

60 Calf

Ochratoxin α

contamination: no OTA and/or AFB, (for detailed information please see the article), conc.: nd, country: UK/USA210, *control incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 155 mg OTA (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/USA²¹⁰, *after 87 days of experimental period incidence: 1/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 143 mg OTA + 4.04 mg AFB, (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: tr*, country: UK/USA210, *after 87 days of experimental period incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg,

incidence: 6/6*, sa. const.: Friesian male

calves, age: ≈12 weeks, wt.: ≈80 kg,

Calf plasma may contain the following mycotoxins and/or their metabolites:

*after 87 days of experimental period

contamination: artificial (dose: 3.87 mg

AFB, (total amount ingested), o., for up to

87 days; for detailed information please see

the article), conc.: nd*, country: UK/USA210,

Ochratoxin α

incidence: 6/6*, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: no OTA and/or AFB₁ (for detailed information please see the article), conc.: nd, country: UK/USA²¹⁰, *control

incidence: 5/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 155 mg OTA (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: tr*, country: UK/USA²¹⁰, *after 87 days of experimental period

incidence: 5/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 143 mg OTA + 4.04 mg AFB(total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: tr*, country: UK/USA210, *after 87 days of experimental period incidence: 6/6, sa. const.: Friesian male calves, age: ≈12 weeks, wt.: ≈80 kg, contamination: artificial (dose: 3.87 mg AFB, (total amount ingested), o., for up to 87 days; for detailed information please see the article), conc.: nd*, country: UK/USA²¹⁰, *after 87 days of experimental period

Calf serum may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 1/1, sa. const.: Holstein-Friesian male calve, preruminant, age: 19 or 20 days, wt.: 44 kg, contamination: artificial (dose: 0.25 mg OTA/kg b. wt., i.v., once; for detailed information please see the article), conc. range: $\leq 3.0 \,\mu g/ml^*$, country: Canada¹⁷⁹, *after 0 h (also at other hour intervals up to 120 h measured, lowest value conc.: <0.1 µg/ml after 120 h) incidence: 2?/2, sa. const.: Holstein-Friesian male calves, preruminant, age: 16 and 21 days, wt.: 60 kg, contamination: artificial (dose: **0.5 mg OTA/kg** b. wt., o., once; for detailed information please see the article), conc. range: ≤0.5 µg/ml*, country: Canada¹⁷⁹, *after ≈37 h (also at other hour intervals up to 120 h measured, lowest value conc.: ≈0.1 μ g/ml after ≈83 h) incidence: 4?/4, sa. const.: Holstein-Friesian male calves, ruminant, age: 46-69 days, wt.: 68-100 kg, contamination: artificial (dose: 2.0 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≤2.2 µg/ml*, country: Canada¹⁷⁹, *after 2-4 h (also at other hour intervals

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up to \approx 96 h measured, lowest value conc.: \approx 0.05 µg/ml after \approx 96 h)

Ochratoxin α

incidence: 4?/4, sa. const.: Holstein-Friesian male calves, ruminant, age: 46–69 days, wt.: 68–100 kg, contamination: artificial (dose: 2.0 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 0.32 \, \mu g/ml^*$, country: Canada¹⁷⁹, *after $\approx 35 \, h$ (also at other hour intervals up to 120 h measured, lowest value conc.: $\approx 0.07 \, \mu g/ml$ after 120 h)

Calf urine may contain the following mycotoxins and/or their metabolites:

incidence: 2/2, sa. const.: Holstein-Friesian

OCHRATOXIN A

male calves, preruminant, age: 19-20 days, wt.: 44 kg, contamination: artificial (dose: 0.25 mg crystalline OTA/kg b. wt., i.v., once; for detailed information please see the article) conc. range: 0.41* **-2.75** mg, country: Canada179, *incomplete urine collection, **cumulative excretion incidence: 2/2, sa. const.: Holstein-Friesian male calves, preruminant, age: 16-21 days, wt.: 60 kg, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: 0.97-0.99 mg*, Ø conc.: 0.98 mg*, country: Canada¹⁷⁹, *cumulative excretion incidence: 4/4, sa. const.: Holstein-Friesian male calves, ruminant, age: 46-69 days, wt.: 68-100 kg, contamination: artificial (dose: 2 mg OTA/kg b.w., o., once; for detailed information please see the article), conc. range: ≤0.9 mg*, country: Canada¹⁷⁹, *cumulative excretion

Ochratoxin α incidence: 2/2, sa. const.: Holstein-Friesian male calves, preruminant, age: 19–20 days, wt.: 44 kg,

contamination: artificial (dose: 0.25 mg crystalline OTA/kg b. wt., i.v., once; for detailed information please see the article), conc.: nd*, country: Canada179, *cumulative excretion incidence: 2/2, sa. const.: Holstein-Friesian male calves, preruminant, age: 16-21 days, wt.: 60 kg, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: 24.05-26.68 mg*, Ø conc.: 25.365 mg*, country: Canada¹⁷⁹, *cumulative excretion incidence: 4/4, sa. const.: Holstein-Friesian male calves, ruminant, age: 46-69 days, wt.: 68-100 kg, contamination: artificial (dose: 2 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≤110.9 mg*, country: Canada¹⁷⁹, *cumulative excretion

Camel

Camel Natural Contamination

Camel fetus may contain the following mycotoxins and/or their metabolites:

GLIOTOXIN

incidence: 1/1*, sa. const.: fetus from camel of the UAE, contamination: natural, conc.: tr, country: Germany/UAE¹⁴⁹, *allantois from fetus

Camel intestine may contain the following mycotoxins and/or their metabolites:

GLIOTOXIN

incidence: 1/2, sa. const.: intestines from camels of the UAE, contamination: natural, conc.: tr*, country: Germany/ UAE¹⁴⁹, *colon incidence: 1/2, sa. const.: intestines from camels of the UAE, contamination: natural, conc.: tr*, country: Germany/ UAE¹⁴⁹, *duodenum

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Camel milk may contain the following mycotoxins and/or their metabolites:

Aflatoxin M_1

incidence: 6/20, sa. const.: milk from camels of the UAE, contamination: natural, conc. range: 0.25–0.8 ng/ml, Ø conc.: 0.46 ng/ml, country: UAE/UK²⁴⁷

Camel rumen may contain the following mycotoxins and/or their metabolites:

GLIOTOXIN

incidence: 2/2, sa. const.: rumens from camels of the UAE, contamination: natural, conc. range: tr, country: Germany/UAE¹⁴⁹

Carp see Fish, carp

Cat

Cat Natural Contamination

Cat kidney may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 16/26, sa. const.: kidneys from cats of Austria, age: 7 weeks–13 years (for detailed information please see the article), contamination: natural, conc. range: 0.1–1.63 μg/kg, Ø conc.: 0.85 μg/kg, country: Austria³⁴⁰

Cat Artifical Contamination

Cat blood may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μ g T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 0.46 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

3'-Hydroxy HT-2 Toxin incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 0.82 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

T-2 TETRAOL

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μ g T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 44.50 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

Cat heart may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 µg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 199.90 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

3'-Hydroxy HT-2 Toxin incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 58.75 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

T-2 Toxin

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 0.99 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

3'-Hydroxy T-2 Toxin incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.:

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13.25 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

T-2 Tetraol incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 10.14 ppb*, country: USA⁴⁹⁷, *after 6 h of

Cat kidney may contain the following mycotoxins and/or their metabolites:

the 2nd dose

the 2nd dose

HT-2 TOXIN incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 138.58 ppb*, country: USA⁴⁹⁷, *after 6 h of

3'-Hydroxy HT-2 Toxin incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 55.88 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

T-2 Toxin incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 34.07 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

3'-Hydroxy T-2 Toxin incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 34.07 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

T-2 Tetraol

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 µg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 57.57 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

Cat liver may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 µg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 2.92 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

3'-Hydroxy HT-2 Toxin

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: $200 \mu g$ T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 1.00 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

T-2 TETRAOL

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 µg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 9.56 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

Cat lung may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 25.56 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

3'-Hydroxy HT-2 Toxin incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 5.28 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

T-2 Toxin

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μ g T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 15.30 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

3'-Hydroxy T-2 Toxin incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 5.42 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

T-2 Tetraol

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 15.30 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

Cat urine may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μ g T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 0.21 ppb, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

3'-Hydroxy HT-2 Toxin incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 µg T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the

article), conc.: 0.34 ppb, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

T-2 Tetraol

incidence: 1/1, sa. const.: cat, contamination: artificial (dose: 200 μ g T-2 toxin/kg on the 1st and 1.5 mg T-2 toxin/kg on the 2nd day; for detailed information please see the article), conc.: 160.88 ppb*, country: USA⁴⁹⁷, *after 6 h of the 2nd dose

Cattle

Cattle Natural Contamination

Cattle bile may contain the following mycotoxins and/or their metabolites:

ZERANOL

incidence: 8/70, sa. const.: bile from castrated male cattles of Northern Ireland, contamination: natural, conc. range: ≥1.0 to ≤3.0 ng/ml*, Ø conc.: 1.65 ng/ml, country: Northern Ireland, UK⁵²⁹, *most probable of *Fusarium* origin

α-Zearalenol

incidence: 8?/70, sa. const.: bile from castrated male cattles of Northern Ireland, contamination: natural, conc. range: ≤20.5 ng/ml*, country: Northern Ireland, UK⁵²⁹, *most probable of *Fusarium* origin

B-ZEARALENOL

incidence: 8?/70, sa. const.: bile from castrated male cattles of Northern Ireland, contamination: natural, conc. range: ≤23.4 ng/ml*, country: Northern Ireland, UK⁵²⁹, *most probable of *Fusarium* origin

Cattle udder may contain the following mycotoxins and/or their metabolites:

GLIOTOXIN

incidence: 1/1, sa. const.: udder from a Holstein-Friesian female of Germany, age: 8 years, contamination: natural, conc.: 9.2 mg/kg udder, country: Germany¹²⁶

Cattle urine may contain the following mycotoxins and/or their metabolites:

ZEARALANOLS

incidence: 282/415*, sa. const.: urine from cattles of New Zealand, contamination: natural, conc. range: ≤12.3 ng/ml**, country: New Zealand²³⁰, *export animals, **most probable of *Fusarium* origin

ZEARALENOLS

incidence: 282/415*, sa. const.: urine from cattles of New Zealand, contamination: natural, conc. range: ≤163 ng/ml, country: New Zealand²³⁰, *export animals

Cattle Artificial Contamination

Cattle feces may contain the following mycotoxins and/or their metabolites:

FUMONISIN B,

incidence: ?/5, sa. const.: cattles, contamination: artificial (dose: 200 μ g FB₁/g, o., once; for detailed information please see the article), conc.: 1 μ g/g (mean value), country: USA²⁷⁶ incidence: ?/5, sa. const.: cattles, contamination: artificial (dose: 400 μ g FB₁/g, o., once; for detailed information please see the article), conc.: 6 μ g/g (mean value), country: USA²⁷⁶

Hydrolized Fumonisin B_1 incidence: ?/5, sa. const.: cattles, contamination: artificial (dose: **200** μ g FB_1 /g, o., once; for detailed information please see the article), conc.: 14 μ g/g (mean value), country: USA²⁷⁶ incidence: ?/5, sa. const.: cattles, contamination: artificial (dose: **400** μ g FB_1 /g, o., once; for detailed information please see the article), conc.: 14 μ g/g (mean value), country: USA²⁷⁶

Cattle liver may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: 5/5*, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: 158 µg ZEA/ animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: nr**, country: Austria599, *control, **after 84 days of ZEA-administration incidence: 5/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: two 25 mg zeranol pellets implanted and additionally 158 µg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: nr*, country: Austria599, *after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: artificial (dose: 2.74 mg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc. range: tr-1.2 μg/kg*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration

α-Zearalenone

incidence: 5/5*, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: 158 µg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: nr**, country: Austria599, *control, **after 84 days of ZEA-administration incidence: 5/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: two 25 mg zeranol pellets implanted and additionally 158 µg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: nr*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration

incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5–2.0 years, Ø wt.: 392 kg, contamination: artificial (dose: 2.74 mg ZEA/animal besides other *Fusarium* mycotoxins, o., daily for 84 days; for detailed information please see the article), conc. range: tr–1.2 µg/kg*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration

B-ZEARALENONE

incidence: 5?/5*, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: 158 μg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: tr**, country: Austria599, *control, **after 84 days of ZEA-administration incidence: 5/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: two 25 mg zeranol pellets implanted and additionally 158 µg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: nr*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: artificial (dose: 2.74 mg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc. range: 5–11.5 μg/kg*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration

Cattle omasum may contain the following mycotoxins and/or their metabolites:

T-2 TOXIN

incidence: 1/1, sa. const.: female calve, wt.: 201–268 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nr*, country: USA⁴⁰³, *in omasum contents

incidence: 1/6, sa. const.: female calves, wt.: 201–268 kg, contamination: artificial (dose: 2.4 mg T-2 toxin/kg, o., once (the remaining calves received different applications of T-2 toxin in different conc.); for detailed information please see the article), conc.: 40 ppb* **, country: USA⁴⁰³, *in omasum contents, **after 24 h

Cattle plasma may contain the following mycotoxins and/or their metabolites:

T-2 Toxin

incidence: 2?/2, sa. const.: female calves, wt.: 201–268 kg, contamination: artificial (dose: **0.6 mg T-2 toxin**/kg, i.v., once), conc.: ≈≤1,300 ppb* (mean value), country: USA⁴⁰³, *after 0 min (also at other min intervals up to 25 min measured, lowest conc.: ≈80 ppb after 25 min) incidence: 2?/2, sa. const.: female calves, wt.: 201–268 kg, contamination: artificial (dose: **1.2 mg T-2 toxin**/kg, i.v., once), conc.: ≈≤4,000 ppb* (mean value), country: USA⁴⁰³, *after 0 min (also at other min intervals up to 60 min measured, lowest conc.: ≈55 ppb after 60 min)

Cattle rumen may contain the following mycotoxins and/or their metabolites:

T-2 Toxin

incidence: 1/1, sa. const.: female calve, wt.: 201–268 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nr*, country: USA⁴⁰³, *in rumen contentsincidence: 1/6, sa. const.: female calves, wt.: 201–268 kg, contamination: artificial (dose: 2.4 mg T-2 toxin/kg, o., once (the remaining calves received different applications of T-2 toxin in different conc.); for detailed information please see the article), conc.: 62 ppb* **, country: USA⁴⁰³, *in rumen contents, **after 24 h

Cattle urine may contain the following mycotoxins and/or their metabolites:

Fumonisin B_1 incidence: ?/5, sa. const.: cattles, contamination: artificial (dose: 200 μ g FB₁/g, o., once; for detailed information please see the article), conc. range: 0.1–0.5 μ g/g (mean values), country: USA²⁷⁶ incidence: ?/5, sa. const.: cattles, contamination: artificial (dose: 400 μ g FB₁/g, o., once; for detailed information please see the article), conc. range: 0.1–0.7 μ g/g (mean values), country: USA²⁷⁶

DIACETOXYSCIRPENOL

incidence: 3/3*, sa. const.: heifers, wt.: 74.5–139.1 kg, contamination: no DAS (for detailed information please see the article), conc.: nd, country: USA⁵¹², *control incidence: 1/4, sa. const.: heifers, wt.: 74.5–139.1 kg, contamination: artificial (dose: **0.5 mg DAS**/kg b. wt., injection, once; for detailed information please see the article), conc.: 0.14 ng/ml*, country: USA⁵¹², *collected after 15 min

Monoacetoxyscirpenol

incidence: 3/3*, sa. const.: heifers, wt.: 74.5–139.1 kg, contamination: no DAS (for detailed information please see the article), conc.: nd, country: USA⁵¹², *control incidence: 1/4, sa. const.: heifers, wt.: 74.5–139.1 kg, contamination: artificial (dose: **0.5 mg DAS**/kg b. wt., injection, once; for detailed information please see the article), conc.: 2.10 ng/ml, country: USA⁵¹², *collected after 15 min

SCIRPENTRIOL

incidence: 3/3*, sa. const.: heifers, wt.: 74.5–139.1 kg, contamination: no DAS (for detailed information please see the article), conc.: nd, country: USA⁵¹², *control incidence: 1/4, sa. const.: heifers, wt.: 74.5–139.1 kg, contamination: artificial

(dose: **0.5** mg DAS/kg b. wt., injection, once; for detailed information please see the article), conc.: 1.17 ng/ml, country: USA⁵¹², *collected after 15 min

Taleranol

incidence: 5?/5*, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: 158 μg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: nr**, country: Austria599, *control, **after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: two 25 mg zeranol pellets implanted and additionally 158 µg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc. range: 2-5 μg/l*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: artificial (dose: 2.74 mg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc. range: 2-3 µg/l*, country: Austria⁵⁹⁹, *after 84 days of ZEAadministration

ZEARALANONE

incidence: 5/5*, sa. const.: Simmendal breed heifers, age: 1.5–2.0 years, Ø wt.: 392 kg, contamination: (dose: 158 μg ZEA/animal besides other *Fusarium* mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: nr**, country: Austria⁵⁹⁹, *control, **after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5–2.0 years, Ø wt.: 392 kg, contamination: (dose: two 25 mg zeranol pellets implanted and additionally 158 μg ZEA/animal besides other *Fusarium* mycotoxins, o., daily for

84 days; for detailed information please see the article), conc.: tr*, country:
Austria⁵⁹⁹, *after 84 days of
ZEA-administration
incidence: 5?/5, sa. const.: Simmendal
breed heifers, age: 1.5–2.0 years, Ø wt.:
392 kg, contamination: artificial
(dose: 2.74 mg ZEA/animal besides other
Fusarium mycotoxins, o., daily for
84 days; for detailed information please
see the article), conc.: tr*, country:
Austria⁵⁹⁹, *after 84 days of
ZEA-administration

ZEARALENONE

incidence: 5?/5*, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: 158 μg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: tr**, country: Austria599, *control, **after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: two 25 mg zeranol pellets implanted and additionally 158 µg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: tr*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: artificial (dose: 2.74 mg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc. range: $5-8 \mu g/l^*$, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration

α-Zearalenol

incidence: 5/5*, sa. const.: Simmendal breed heifers, age: 1.5–2.0 years, Ø wt.: 392 kg, contamination: (dose: 158 μg ZEA/animal besides other *Fusarium* mycotoxins, o., daily for 84 days; for

detailed information please see the article), conc.: nr**, country: Austria599, *control, **after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: two 25 mg zeranol pellets implanted and additionally 158 µg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: tr*, country: Austria599, *after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: artificial (dose: 2.74 mg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc. range: $3-5 \mu g/l^*$, country: Austria⁵⁹⁹, *after 84 days of ZEAadministration

B-Zearalenol

incidence: 5?/5*, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: 158 μg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: tr**, country: Austria 599, *control, **after 84 days of ZEAadministration incidence: 5/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: two 25 mg zeranol pellets implanted and additionally 158 µg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: nr*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: artificial (dose: 2.74 mg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please

see the article), conc. range: 20–65 μg/l*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration

Zeranoi

incidence: 5/5*, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: 158 μg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc.: nr**, country: Austria599, *control, **after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: (dose: two 25 mg zeranol pellets implanted and additionally 158 µg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc. range: 2-5 μg/l*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration incidence: 5?/5, sa. const.: Simmendal breed heifers, age: 1.5-2.0 years, Ø wt.: 392 kg, contamination: artificial (dose: 2.74 mg ZEA/animal besides other Fusarium mycotoxins, o., daily for 84 days; for detailed information please see the article), conc. range: 2-3 μg/l*, country: Austria⁵⁹⁹, *after 84 days of ZEA-administration

Channel Catfish see Fish, channel catfish

Chicken

Chicken Natural Contamination

see also Hen

Chicken liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 122/225, sa. const.: livers from chickens of Thailand, contamination:

natural, conc. range: 0.003–35.45 ppb, Ø conc.: 2.473 ppb, country: Thailand⁵⁷⁷

Chicken muscle may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 97/225, sa. const.: muscles from chickens of Thailand, contamination: natural, conc. range: 0.024–24.34 ppb, Ø conc.: 0.744 ppb, country: Thailand⁵⁷⁷

Chicken Artificial Contamination

Chicken bile may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: 11/11, sa. const.: male broilers, age: 25–27 days, contamination: artificial (dose: 5.8 µg ZEA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤160 ng/g* (mean value), country: Germany⁵⁴³, *≈4 h elapsed after bolus (also at other hour intervals up to 48 h measured, lowest conc.: ≈20 ng/g after 48 h)

α-Zearalenol

incidence: 11/11, sa. const.: male broilers, age: 25–27 days, contamination: artificial (dose: 5.8 µg ZEA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤100 ng/g* (mean value), country: Germany⁵⁴³, *≈7 h elapsed after bolus (also at other hour intervals up to 48 h measured, lowest conc.: ≈10 ng/g after 48 h)

Chicken blood may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 2/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please

see the article), conc. range: $\approx 0.45-0.5$ ppm*, country: USA⁶¹⁷, *after 12 h (also measured after 48 and 72 h) incidence: 4/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc.: nd*, country: USA⁶¹⁷, *after 24 h (also measured after 48 and 72 h)

ZEARALENONE

incidence: 6/6*, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA106, *control incidence: 4?/4, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 5.0 mg ZEA (labeled)/kg b. wt., intubated into the crop, once; for detailed information please see the article), conc. range: ≤143.6 ppb* ** *** (mean value), country: USA106, *eq. conc., **after 8 h (also measured after 0.5, 4, 12, 24 and 48 h, lowest conc.: 70.8 ppb after 48 h), *** ZEA and/or metabolites

Chicken Breast see Chicken muscle, breast

Chicken Breast Muscle see Chicken muscle, breast

Chicken chest may contain the following mycotoxins and/or their metabolites:

Ochratoxin A incidence: 4?/4, sa. const.: New Hampshire-Leghorn cross chicks, age: 36 days, contamination: artificial (dose: feeding 1 ppm OTA for 5 weeks and then given a single dose of 50 μg ³H-OTA per chick by intubation (OTA labeled and unlabeled); for detailed

information please see the article), conc. range: ≤0.17 ppb* (mean value), country: USA³¹⁶, *after 8 h (also measured after 24 and 48 h, lowest conc.: 0.10 ppb after 48 h)

Chicken crop may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 20/20*, sa. const.: White Leghorn chicks, age: 14 days, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA53, *control incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 120 ng AFB₁/g ration for 28 days; for detailed information please see the article), conc.: 0.033 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 525 ng AFB,/g ration + 25% soil for 28 days; for detailed information please see the article), conc.: 0.019 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 630 ng AFB,/g ration + 10% soil for 28 days; for detailed information please see the article), conc.: 0.21 ng/g* (mean value), country: USA53, *after 28 days of AFB, -administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 700 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: 0.74 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration

AFLATOXIN B, incidence: 20/20*, sa. const.: White Leghorn chicks, age: 14 days, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA53, *control incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 120 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 525 ng AFB,/g ration + 25% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB, -administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 630 ng AFB₁/g ration + 10% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB, -administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 700 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: 0.029 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration

AFLATOXIN M_1 incidence: 20/20*, sa. const.: White Leghorn chicks, age: 14 days, contamination: no AFB $_1$ (for detailed information please see the article), conc.: nd, country: USA 53 , *control incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 120 ng AFB $_1$ /g ration for 28 days; for detailed information please see the article), conc.: nd*, country: USA 53 , *after 28 days of AFB $_1$ -administration incidence: 20/20, sa. const.: White Leghorn chicks, age 14 days,

contamination: artificial (dose: 525 ng AFB₁/g ration + 25% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB, -administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 630 ng AFB,/g ration + 10% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 700 ng AFB₁/g ration for 28 days; for detailed information please see the article), conc.: 0.57 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration

Chicken Egg see Hen egg

Chicken excreta may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no AF; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.5 mg total AF/kg diet, o., for 5 weeks; for detailed information please see the article), conc.: 0.53 mg/kg* dry matter (mean value), country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

incidence: 2/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈1.25–2.75 ppm*, country: USA⁶¹⁷, *after 12 h (also measured after 48 and 72 h)

incidence: 2/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈0.5–8.35 ppm*, country: USA⁶¹⁷, *after 24 h (also measured after 48 and 72 h)

AFLATOXIN B₂ incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no AF; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.5 mg total AF/kg diet, o., for 5 weeks; for detailed information please see the article), conc.: tr*, country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

AFLATOXIN G₁ incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no AF; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.5 mg total AF/kg diet, o., for 5 weeks; for detailed information please see the article), conc.: 0.21 mg/kg* dry matter (mean value), country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

AFLATOXIN G₂ incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no AF; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.5 mg total AF/kg diet, o., for 5 weeks; for detailed information please see the article), conc.: tr*, country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

HT-2 Toxin

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 3,606 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

3-Acetoxy-3'-Hydroxy HT-2 Toxin incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p.., once), conc.: <1 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

3'-Hydroxy HT-2 Toxin incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt.., i.p., once), conc.: 8,224 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

OCHRATOXIN A

incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no OTA; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.0 mg OTA/kg diet, o., for 5 weeks), conc.: 0.48 mg/kg* dry matter (mean value), country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

T-2 Toxin

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 353 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

3'-HYDROXY T-2 TOXIN incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 3,284 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

T-2 Tetraol incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial

(dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 682 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

4-ACETOXY T-2 TETRAOL

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 1,041 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

8-ACETOXY T-2 TETRAOL

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 603 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

15-ACETOXY T-2 TETRAOL

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 2,065 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

T-2 Triol

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 40 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

ZEARALENONE

incidence: 6/6, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA¹⁰⁶ incidence: 8/11, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 5 mg ZEA (labeled)/kg b. wt., intubated into the crop, once; for detailed information please see the article), conc. range: ≤68.7 ppm*, country: USA¹⁰⁶, *after 8 h (also measured after 0.5, 4, 12, 24 and 48 h, lowest conc.: nd after 0.5, 4 and 24 h)

incidence: ?/16*, sa. const.: male broilers, age: 25 days, contamination: artificial (dose: 6.5 mg ZEA/kg b. wt., o., once; for detailed information please see the

article), conc. range: ≈≤160 ng/g** *** (mean value), country: Germany543, *dried excreta, **without Mycofix°-Plus, ***≈3.5 h elapsed after bolus (also at other hour intervals up to 48 h measured, lowest conc.: ≈10 ng/g after 48 h) incidence: ?/16*, sa. const.: male broilers, age: 25 days, contamination: artificial (dose: 6.5 mg ZEA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤153 ng/g** *** (mean value), country: Germany⁵⁴³, *dried excreta, **with Mycofix®-Plus, ***≈3.5 h elapsed after bolus (also at other hour intervals up to 48 h measured, lowest conc.: ≈10 ng/g after 48 h)

α-Zearalenol

incidence: 6/6, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA¹⁰⁶ incidence: 11/11, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 5 mg ZEA (labeled)/kg b. wt., intubated into the crop, once; for detailed information please see the article), conc. range: ≤57.7 ppm*, country: USA¹⁰⁶, *after 8 h (also measured after 0.5, 4, 12, 24 and 48 h, lowest conc.: 0.2 ppm after 0.5 h)

incidence: ?/16*, sa. const.: male broilers, age: 25 days, contamination: artificial (dose: 6.5 mg ZEA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤50 ng/g** *** (mean value), country: Germany543, *dried excreta, **without Mycofix®-Plus, ***≈3.5 h elapsed after bolus (also at other hour intervals up to 48 h measured, lowest conc.: ≈5 ng/g after 48 h) incidence: ?/16*, sa. const.: male broilers, age: 25 days, contamination: artificial (dose: 6.5 mg ZEA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤47 ng/g** *** (mean value), country: Germany⁵⁴³, *dried

excreta, **with Mycofix*-Plus, ***≈3.5 h elapsed after bolus (also at other hour intervals up to 48 h measured, lowest conc.: ≈5 ng/g after 48 h)

β-ZEARALENOL

incidence: 6/6, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA¹⁰⁶ incidence: 11/16, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 5 mg ZEA (labeled)/kg b. wt., intubated into the crop, once; for detailed information please see the article), conc. range: ≤53.3 ppm*, country: USA¹⁰⁶, *after 8 h (also measured after 0.5, 4, 12, 24 and 48 h, lowest conc.: 0.3 ppm after 0.5 h)

Chicken fat may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M,

incidence: ?/?*, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 3?/3, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: artificial (dose: $50 \,\mu g \, AFB_1/kg$ feed, o., for up to 64 days; for detailed information please see the article), conc.: 0.70 $\,\mu g/kg^*$ (mean value), country: Italy²³², *after 64 days (also measured after 36 days but conc.: nd)

ZEARALENONE

incidence: 6/6*, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA¹⁰⁶, *control incidence: 4?/4, sa. const.: broiler chickens (Ross male X Arbor Acre female).

incidence: 4?/4, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 5.0 mg ZEA (labeled)/kg b. wt.,

intubated into the crop, once; for detailed information please see the article), conc. range: ≤57.6 ppb* ** *** (mean value), country: USA¹¹⁰⁶, *eq. conc., **after 0.5 h (also measured after 4, 8, 12, 24 and 48 h, lowest conc.: 20.3 ppb after 12 h), *** ZEA and/or metabolites

Chicken Feces see Chicken excreta

Chicken female repro tract may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 4?/4, sa. const.: New Hampshire-Leghorn cross chicks, age: 36 days, contamination: artificial (dose: feeding 1 ppm OTA for 5 weeks and then given a single dose of 50 µg ³H-OTA per chick by intubation (OTA labeled and unlabeled); for detailed information please see the article), conc. range: ≤6.81 ppb* (mean value), country: USA³¹¹⁶, *after 8 h (also measured after 24 and 48 h, lowest conc.: nd after 48 h)

Chicken gastrointestinal

tract may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 4/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈0.3−1.3 ppm*, country: USA⁶¹⁷, *after 12 h (also measured after 48 and 72 h) incidence: 4/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈0.35−4.85 ppm*, country: USA⁶¹⁷, *after 24 h (also measured after 48 and 72 h)

Chicken gizzard may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ and AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 6/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 μg AFB₁/kg feed and 1,323 μg AFB₂/kg feed, o., for 5 weeks), conc. range: ≤0.50 μg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³⁵⁹, *control incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤8.05 µg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: 0.58 µg/kg after 32 days, intoxication period)

incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤17.8 µg/kg* (mean value), country: Spain³59 (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: 1.84 µg/kg after 32 days, intoxication period)

incidence: 4/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈0.8–1.85 ppm*,

country: USA617, *after 12 h (also measured after 48 and 72 h) incidence: 4/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB, (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈3.3-7.75 ppm* **, country: USA617, *after 12 h (also measured after 48 and 72 h), **in gizzard contents incidence: 4/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB, (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈0.5–1.55 ppm*, country: USA⁶¹⁷, *after 24 h (also measured after 48 and 72 h) incidence: 4/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB, (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈1-7.7 ppm* **, country: USA617, *after 24 h (also measured after 48 and 72 h), **in gizzard contents

Aflatoxin B_2

incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 6/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: **2,057 µg** AFB₁/kg feed and **1,323 µg** AFB₂/kg feed, o., for 5 weeks), conc. range: \leq 0.33 µg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³⁵⁹, *control incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for

32 days; for detailed information please see the article), conc. range: ≤0.2 µg/kg* (mean value), country: Spain³59 (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: 0.01 µg/kg after 32 days, intoxication period) incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.45 µg/kg* (mean value), country: Spain³59 (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: 0.04 µg/kg after 8 days, intoxication period)

AFLATOXIN G, incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤1.84 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: 0.25 µg/kg after 32 days, intoxication period) incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤4.3 µg/kg* (mean value), country: Spain359 (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: 0.32 µg/kg after 32 days, intoxication period)

AFLATOXIN M,

incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 4/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 µg

AFB₁/kg feed + 1,323 μg AFB₂/kg feed, o., for 5 weeks), conc. range: \leq 0.03 μg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

AFLATOXIN M.

incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 5/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: **2,057 µg** AFB₁/kg feed + **1,323 µg** AFB₂/kg feed, o., for 5 weeks), conc. range: \le 0.31 µg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

OCHRATOXIN A

incidence: 4?/4, sa. const.: New Hampshire-Leghorn cross chicks, age: 36 days, contamination: artificial (dose: feeding 1 ppm OTA for 5 weeks and then given a single dose of 50 µg ³H-OTA per chick by intubation (OTA labeled and unlabeled); for detailed information please see the article), conc. range: ≤2.95 ppb* (mean value), country: USA³¹⁶, *after 8 h (also measured after 24 and 48 h, lowest conc.: 0.01 ppb after 48 h)

PENICILLIC ACID

incidence: 3/3*, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: no PA, conc.: nr, country: USA524, *control incidence: 3/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 50 mg PA/kg b. wt., o. by intubation, once), conc.: nd* (mean value), country: USA524, *after 4 h incidence: 3?/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 100 mg PA/kg b. wt., o. by intubation, once), conc.: 2.8 ng/g* (mean value), country: USA⁵²⁴, *after 4 h

incidence: 3?/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 200 mg PA/kg b. wt., o. by intubation, once), conc.: 3.6 ng/g* (mean value), country: USA⁵²⁴, *after 4 h incidence: 3?/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 400 mg PA/kg b. wt., o. by intubation, once), conc.: 19 ng/g* (mean value), country: USA⁵²⁴, *after 4 h

incidence: 6/6*, sa. const.: broiler chickens

ZEARALENONE

(Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA106, *control incidence: 4?/4*, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 5.0 mg ZEA (labeled)/kg b. wt., intubated into the crop, once; for detailed information please see the article), conc. range: ≤1,228.8 ppb** *** **** (mean value), country: USA106, *gizzard without contents or mucosa, **eq. conc., ***after 4 h (also measured after 0.5, 8, 12, 24 and 48 h, lowest conc.: 95.6 ppb after 48 h), ****ZEA and/or metabolites

Chicken heart may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: ?/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 μg AFB₁/kg feed + 1,323 μg AFB₂/kg feed, o., for 5 weeks), conc.: 0.08 μg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured

after 1, 2 and 4 days, lowest conc.: nd after 1, 2 and 4 days)

incidence: 1/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc.: ≈0.45 ppm*, country: USA⁶¹⁷, *after 12 h (also measured after 48 and 72 h) incidence: 4/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc.: nd*, country: USA⁶¹⁷, *after 24 h (also measured after 48 and 72 h)

AFLATOXIN B

incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: ?/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: **2,057 µg** AFB₁/kg feed + **1,323 µg** AFB₂/kg feed, o., for 5 weeks), conc.: 0.06 µg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 1, 2 and 4 days)

AFLATOXIN M,

incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 6/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 µg AFB₁/kg feed + 1,323 µg AFB₂/kg feed, o., for 5 weeks), conc.: nd, country: USA³⁵⁷

AFLATOXIN M₂

incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: ?/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 μg

AFB₁/kg feed + 1,323 μg AFB₂/kg feed, o., for 5 weeks), conc.: 0.19 μg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 1, 2 and 4 days)

AFLATOXIN

incidence: 25/25*, sa. const.: Hubbard chickens, age: 1 day, contamination: no AFB,, (for detailed information please see the article), conc.: nd, country: Egypt³⁷², *control incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 100 ppb AFB,, o., for 6 weeks; for detailed information please see the article), conc. range: ≤3.90* ng/g* ** ***, country: Egypt³⁷², *AF-residues, **after 5 weeks of AFB,-administration (also measured after 3 and 4 weeks, lowest conc.: nr after 3 and 4 weeks), ***in heart muscle incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 250 ppb AFB,, o., for 6 weeks; for detailed information please see the article), conc. range: ≤23.64* ng/g* ** ***, country: Egypt³⁷², *AF-residues, **after 5 weeks of AFB,administration (also measured after 3 and 4 weeks, lowest conc.: 15.26 ng/g after 3 weeks), ***in heart muscle incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 500 ppb AFB, o., for 6 weeks; for detailed information please see the article), conc. range: \leq 36.36* ng/g* ** ***, country: Egypt³⁷², *AF-residues, **after 3 weeks of AFB,administration (also measured after 4 and 5 weeks, lowest conc.: 34.33 ng/g after 4 weeks), ***in heart muscle incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 750 ppb AFB,, o., for 6 weeks; for detailed information please see the article), conc. range: \leq 58.82* ng/g* ** ***, country: Egypt³⁷², *AF-residues, **after 5 weeks of AFB,administration (also measured after 3 and

4 weeks, lowest conc.: 39.22 ng/g after 3 weeks), ***in heart muscle

OCHRATOXIN A

incidence: 4?/4, sa. const.: New Hampshire-Leghorn cross chicks, age: 36 days, contamination: artificial (dose: feeding 1 ppm OTA for 5 weeks and then given a single dose of 50 µg ³H-OTA per chick by intubation (OTA labeled and unlabeled); for detailed information please see the article), conc. range: ≤0.45 ppb* (mean value), country: USA³¹¹6, *after 8 h (also measured after 24 and 48 h, lowest conc.: nd after 48 h)

PENICILLIC ACID

incidence: 3/3*, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: no PA, conc.: nr, country: USA524, *control incidence: 3/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 50 mg PA/kg b. wt., o. by intubation, once), conc.: nd* (mean value), country: USA524, *after 4 h incidence: 3/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 100 mg PA/kg b. wt., o. by intubation, once), conc.: nd* (mean value), country: USA524, *after 4 h incidence: 3/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 200 mg PA/kg b. wt., o. by intubation, once), conc.: nd* (mean value), country: USA524, *after 4 h incidence: 3?/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 400 mg PA/kg b. wt., o. by intubation, once), conc.: 590 ng/g* (mean value), country: USA524, *after 4 h

ZEARALENONE

incidence: 6/6*, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA

(for detailed information please see the article), conc.: nr, country: USA¹⁰⁶, *control

incidence: 4?/4, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 5.0 mg ZEA (labeled)/kg b. wt., intubated into the crop, once; for detailed information please see the article), conc. range: ≤140 ppb* ** *** (mean value), country: USA¹06, *eq. conc., **after 0.5 h (also measured after 4, 8, 12, 24 and 48 h, lowest conc.: 64.0 ppb after 48 h), ***ZEA and/or metabolites

Chicken intestine may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 4?/4, sa. const.: New Hampshire-Leghorn cross chicks, age: 36 days, contamination: artificial (dose: feeding 1 ppm OTA for 5 weeks and then given a single dose of $50 \mu g^3$ H-OTA per chick by intubation (OTA labeled and unlabeled); for detailed information please see the article), conc. range: ≤ 7.05 ppb* (mean value), country: USA 316 , *after 8 h (also measured after 24 and 48 h, lowest conc.: 0.33 ppb after 48 h)

Chicken kidney may contain the following mycotoxins and/or their metabolites:

incidence: ?/?*, sa. const.: Hubbard strain

AFLATOXICOL

male broilers, age: 14 days, contamination: no AFB $_1$ (for detailed information please see the article), conc.: nr**, country: Italy 232 , *control incidence: 6?/6, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: artificial (dose: 50 μ g AFB $_1$ /kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: 0.05*-0.60** μ g/kg (mean values), country: Italy 232 , after 64* and 36** days

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 µg AFB₁/kg feed + 50 µg OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: 0.50*–0.60** µg/kg (mean values), country: Italy⁵¹⁵, after 36* and 64** days

AFLATOXIN B,

incidence: ?/?*, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 6?/6, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: artificial (dose: $50 \mu g AFB_1/kg$ feed, o., for up to 64 days; for detailed information please see the article), conc. range: $0.05^*-0.06^{**} \mu g/kg$ (mean values), country: Italy²³², after 64** and 36* days

incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: ?/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 μg AFB₁/kg feed + 1,323 μg AFB₂/kg feed, o., for 5 weeks), conc.: 0.05 μg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 1, 2 and 4 days)

incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³⁵⁹, *control incidence: 12?/16, sa. const.: Hybro broiler chickens, age: 23 days,

contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: \leq 0.37 µg/kg*, country: Spain³⁵⁹ (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: nd after 32 days, intoxication period)

incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.46 µg/kg*, country: Spain³⁵⁹ (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: 0.09 µg/kg after 4 days, intoxication period)

incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no AF (for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: **1.5 mg total AF**/kg diet, o., for 5 weeks; for detailed information please see the article), conc. range: <0.2–0.6 μg/kg* (mean values), country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB $_1$ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μ g AFB $_1$ /kg feed + 50 μ g OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: 0.40*–0.60** μ g/kg (mean values), country: Italy⁵¹⁵, after 36* and 64** days

incidence: 30/30*, sa. const.: broiler chicks, age: 1 day, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: India⁵⁹⁵, *control

incidence: ?/30, sa. const.: broiler chicks, age: 1 day, contamination: artificial (dose: **20, 40, 60, 80 or 100* ppb AFB**₁, o., for 15, 30 or 45 days; for detailed information please see the article), conc.: ≤3.21 ng/g**, country: India⁵⁹⁵, **after 45 days (also measured after 15 and 30 days, lowest conc.: 3.1 ng/g after 30 days)

incidence: 2/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈0.15–0.25 ppm*, country: USA⁶¹⁷, *after 12 h (also measured after 48 and 72 h) incidence: 1/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc.: ≈0.15 ppm*, country: USA⁶¹⁷, *after 24 h (also measured after 48 and 72 h)

AFLATOXIN B,

incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: ?/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 μ g AFB₁/kg feed + 1,323 μ g AFB₂/kg feed, o., for 5 weeks), conc. range: \leq 0.05 μ g/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1*, 2 and 4 days, lowest conc.: nd after 2 and 4 days)

AFLATOXIN B_{2a} incidence: 16

incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³⁵⁹, *control incidence: 4?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information

please see the article), conc. range: ≤0.15 μg/kg* (mean value), country: Spain³59 (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: nd after 4, 8 and 32 days, intoxication period) incidence: 8?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.17 μg/kg (mean value), country: Spain³59 (measured at 4th, 8th, 16th and 32nd day, lowest conc.: nd after 4 and 32 days, intoxication period)

incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no AF; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.5 mg total AF/kg diet, o., for 5 weeks; for detailed information please see the article), conc. range: 0.4–0.5 µg/kg* (mean values), country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

AFLATOXIN M,

incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: ?/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 µg AFB₁/kg feed + 1,323 µg AFB₂/kg feed, o., for 5 weeks), conc.: 0.10 µg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 1, 2 and 4 days)

incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³⁵⁹, *control

incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.18 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: nd after 4 days, intoxication period) incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.13 µg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: nd after 4 and 32 days, intoxication period)

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB $_1$ + OTA (for detailed information please see the article), conc.: nr, country: Italy 515 , *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μg AFB $_1$ /kg feed + 50 μg OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: <0.01 μg /kg* (mean value), country: Italy 515 , *after 36 and 64 days

AFLATOXIN M,

incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: ?/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 μ g AFB₁/kg feed + 1,323 μ g AFB₂/kg feed, o., for 5 weeks), conc.: \leq 2.07 μ g/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 2 and 4 days)

OCHRATOXIN A

incidence: 4?/4, sa. const.: New Hampshire-Leghorn cross chicks, age: 36 days, contamination: artificial

(dose: feeding 1 ppm OTA for 5 weeks and then given a single dose of 50 µg ³H-OTA per chick by intubation (OTA labeled and unlabeled); for detailed information please see the article), conc. range: ≤11.77 ppb* (mean value), country: USA³¹⁶, *after 8 h (also measured after 24 and 48 h, lowest conc.: 0.58 ppb after 48 h)

incidence: 30/30*, sa. const.: male and female Hubbard chicks, age: 1 day, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Canada376, *control incidence: 6?/6, sa. const.: male and female Hubbard chicks, age: 1 day, contamination: artificial (dose: 2.0 ppm OTA, o., for 8 weeks; for detailed information please see the article), conc.: 41 ppb* ** (mean value), country: Canada³⁷⁶, *in broilers, **0 h after withdrawal from treated feed incidence: 6?/6, sa. const.: male and female Hubbard chicks, age: 1 day, contamination: artificial (dose: 2.0 ppm OTA, o., for 8 weeks; for detailed information please see the article), conc.: 16 ppb* ** (mean value), country: Canada³⁷⁶, *in broilers, **24 h after withdrawal from treated feed incidence: 6/6, sa. const.: male and female Hubbard chicks, age: 1 day, contamination: artificial (dose: 2.0 ppm OTA, o., for 8 weeks; for detailed information please see the article), conc.: nd* **, country: Canada³⁷⁶, *in broilers, **48 h after withdrawal from treated feed

incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no OTA; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.0 mg OTA/kg diet, o., for 5 weeks), conc. range: 3.0–10.0 μg/kg* (mean values), country: Australia⁴⁰⁰, *after 5 weeks of OTA-administration

incidence: 4/4*, sa. const.: wingbanded Ross broiler chicks, age: 28 days, Ø wt.: 835.19 g, contamination: no OTA (for detailed information please see the article), conc.: nd, country: The Netherlands/Hungary⁴⁷³, *control incidence: 4?/4, sa. const.: wingbanded Ross broiler chicks, age: 28 days, Ø wt.: 835.19 g, contamination: artificial (dose: a total of 0.5 mg OTA/week, o., for 4 weeks; for detailed information please see the article), conc. range: ≤1.25 ng/g* (mean value), country: The Netherlands/ Hungary⁴⁷³, *after 7 days of OTA-administration (also measured after 14, 21 and 28 days, lowest conc.: nd after 28 days)

incidence: 3/3*, sa. const.: male Hubbard strain chicks, age: 35 days, contamination: no OTA alone/or OTA/PA (for detailed information please see the article), conc.: nd, country: Italy⁴⁹¹, *control incidence: 3?/3, sa. const.: male Hubbard strain chicks, age: 35 days, contamination: artificial (dose: 100 µg OTA/kg feed, o., for 31 days; for detailed information please see the article), conc.: 0.6 µg/kg* (mean value), country: Italy⁴⁹¹, *after 31 days

incidence: 3?/3, sa. const.: male Hubbard strain chicks, age: 35 days, contamination: artificial (dose: $100 \mu g$ OTA + 1 mg PA/kg feed, o., for 31 days; for detailed information please see the article), conc.: $4.1 \mu g/kg^*$ (mean value), country: Italy⁽⁹¹⁾, *after 31 days

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB $_1$ + OTA (for detailed information please see the article), conc.: nr, country: Italy 515 , *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μ g AFB $_1$ /kg feed + 50 μ g OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: 0.5*–2.1** μ g/kg (mean values), country: Italy 515 , after 36* and 64** days

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μg AFB₁/kg feed + 50 μg OTA/kg feed, o., for 36 days; for detailed information please see the article), conc. range: <0.5*-0.8** μg/kg (mean values), country: Italy⁵¹⁵, 14** or 28* days after withdrawal from treatment

incidence: 27/27*, sa. const.: White Leghorn chickens, age: 1 day, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Denmark⁵⁶⁶, *control incidence: 27?/27, sa. const.: White Leghorn chickens, age: 1 day, contamination: artificial (dose: 0.3 mg OTA/kg feed, for 341 days), conc.: ≈13.5 µg/kg* (mean value), country: Denmark⁵⁶⁶, *after 341 days incidence: 27?/27, sa. const.: White Leghorn chickens, age: 1 day, contamination: artificial (dose: 1 mg OTA/ kg feed, for 341 days), conc.: ≈18 µg/kg* (mean value), country: Denmark⁵⁶⁶, *after 341 days incidence: 5?/5, sa. const.: White Leghorn chickens, age: 1 day, contamination: artificial (dose: 1 mg OTA/kg feed, for the last 14 of 314 days; for detailed information please see the article), conc.: ≈32.5 µg/kg* (mean value), country: Denmark⁵⁶⁶, *after 341 days

incidence: ?/?*, sa. const.: newly hatched chicks of Rhode Island Red strain, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Poland⁵⁹⁰, *control incidence: ?/?, sa. const.: newly hatched chicks of Rhode Island Red strain, contamination: artificial (dose: cockerels and hens received 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed

information please see the article), conc.: 60.6 ppb*, country: Poland⁵⁹⁰, *after? weeks incidence: ?/?, sa. const.: newly hatched chicks of Rhode Island Red strain, contamination: artificial (dose: cockerels and hens received **4.1 ppm OTA** in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 189.0 ppb*, country: Poland⁵⁹⁰, *after? weeks

PENICILLIC ACID

incidence: 3/3*, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: no PA, conc.: nr, country: USA524, *control incidence: 3?/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 50 mg PA/kg b. wt., o. by intubation, once), conc.: 1,480 ng/g* (mean value), country: USA524, *after 4 h incidence: 3?/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 100 mg PA/kg b. wt., o. by intubation, once), conc.: 1,920 ng/g* (mean value), country: USA524, *after 4 h incidence: 3?/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 200 mg PA/kg b. wt., o. by intubation, once), conc.: 2,160 ng/g* (mean value), country: USA524, *after 4 h incidence: 3?/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 400 mg PA/kg b. wt., o. by intubation, once), conc.: 2,910 ng/g* (mean value), country: USA524, *after 4 h

Chicken Leg see Chicken muscle, leg

Chicken Leg Muscle see Chicken muscle, leg

Chicken liver may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: ?/?*, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 6?/6, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: artificial (dose: 50 μg AFB₁/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: 0.60*-1.10** μg /kg (mean values), country: Italy²³², after 64* and 36** days

incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³59, *control incidence: 8?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: **2.5 mg AF**/kg feed, o., for 32 days; for detailed information please see the article), conc. range: \le 0.61 μ g/kg* (mean value), country: Spain³59 (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: nd after 4 and 32 days, intoxication period)

incidence: 4?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤tr* (mean value), country: Spain³59 (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: nd after 4, 8 and 32 days, intoxication period)

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μg

AFB₁/kg feed + 50 μ g OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: 3.40*-3.50** μ g/kg (mean value), country: Italy⁵¹⁵, after 36* and 64** days

AFLATOXIN B, incidence: 20/20*, sa. const.: White Leghorn chicks, age: 14 days, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA53, *control incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 120 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: 0.005 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 525 ng AFB,/g ration + 25% soil for 28 days; for detailed information please see the article), conc.: 0.018 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 630 ng AFB,/g ration + 10% soil for 28 days; for detailed information please see the article), conc.: 0.007 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 700 ng AFB₁/g ration for 28 days; for detailed information please see the article), conc.: 1.29 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration

incidence: $17/17^*$, sa. const.: broiler chickens, contamination: no AFB $_1$ (for detailed information please see the article), conc.: nd, country: Germany 90 , *control

incidence: ?/7, sa. const.: broiler chickens, contamination: artificial (dose: 2.0 ppm AFB₁, o., for 56 days; for detailed information please see the article), conc. range: ≤22.10 ppb* **, country: Germany⁹⁰, *AFB₁-residues, **after 8 weeks of AFB₁-administration (up to 15.0 ppm AFB₁ applicated but lower residue values recorded)

incidence: ?/?*, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control incidence: 6?/6, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: artificial (dose: **50** μg AFB₁/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: 0.01*–0.02** μg/kg (mean values), country: Italy²³², after 64* and 36** days

incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 6/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: **2,057** µg AFB₁/kg feed + **1,323** µg AFB₂/kg feed, o., for 5 weeks), conc. range: ≤ 0.29 µg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³59, *control incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: \le 0.52 μ g/kg* (mean value), country: Spain³59 (measured at 4th, 8th, 16th* and 32nd day, lowest

conc.: 0.09 µg/kg after 4 days, intoxication period)

incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: \leq 0.44 µg/kg* (mean value), country: Spain³59 (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: 0.05 µg/kg after 32 days, intoxication period)

incidence: 3?/3, sa. const.: broiler chicks, contamination: artificial (dose: 3 μg AFB₁/g b. wt., o. gavage, daily for up to 20 days; for detailed information please see the article), conc. range: ≤25.2 ng/g* ** wet matter basis, country: Spain³⁷³, *AFB₁-residues, **after 12 days and 11 doses

incidence: ?/?*, sa. const.: broiler chicks, contamination: no AF (for detailed information please see the article), conc.: nd, country: India³⁹⁸, *control incidence: ?/?, sa. const.: broiler chicks, contamination: artificial (dose: **0.5 ppm** AF, for ?; for detailed information please see the article), conc. range: ≤4.7 ppb*, country: India³⁹⁸, *after 45 days

incidence: ?/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no AF; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.5 mg total AF/kg diet, o., for 5 weeks; for detailed information please see the article), conc. range: 0.4–1.4 µg/kg* (mean values), country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control

incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μ g AFB₁ + 50 μ g OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: 0.04*–0.15** μ g/kg (mean values), country: Italy⁵¹⁵, after 64* and 36** days

incidence: 30/30*, sa. const.: hybrid male and female Arbor Acor broiler chickens, age: 1 day, contamination: no AFB, and/or CP (for detailed information please see the article), conc.: nd, country: Thailand⁵⁷⁴, *control incidence: 30?/30, sa. const.: hybrid male and female Arbor Acor broiler chickens, age: 1 day, contamination: artificial (dose: different conc. of AFB, with/ without CP fed for different periods; for detailed information please see the article), conc. range: ≤0.13 ppb* ** (mean value), country: Thailand574, *AFB,-residues, **after 6 weeks of AFB,-administration

incidence: 30/30*, sa. const.: broiler chicks, age: 1 day, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: India⁵⁹⁵, *control incidence: ?/30, sa. const.: broiler chicks, age: 1 day, contamination: artificial (dose: 20, 40, 60, 80* or 100 ppb AFB₁, o., for 15, 30 or 45 days; for detailed information please see the article), conc.: ≤6.740 ng/g***, country: India⁵⁹⁵, **after 45 days (also measured after 15 and 30 days, lowest conc.: nd after 15 days)

incidence: 2/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈0.25–0.3 ppm*, country: USA⁶¹⁷, *after 12 h (also measured after 48 and 72 h) incidence: 2/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled),

o., once; for detailed information please see the article), conc. range: ≈0.5–0.55 ppm*, country: USA⁶¹⁷, *after 24 h (also measured after 48 and 72 h)

AFLATOXIN B. incidence: 20/20*, sa. const.: White Leghorn chicks, age: 14 days, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA53, *control incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 120 ng AFB₁/g ration for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 525 ng AFB_1/g ration + 25% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB, -administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 630 ng AFB₁/g ration + 10% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB, -administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 700 ng AFB₁/g ration for 28 days; for detailed information please see the article), conc.: 0.028 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration

incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 6/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 μg AFB₁/kg feed + 1,323 μg AFB₃/kg feed, o.,

for 5 weeks), conc. range: ≤0.13 μg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

AFLATOXIN B_{2a} incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence:12?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.22 μg/kg* (mean value), country: Spain359 (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: nd after 32 days, intoxication period) incidence:12?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.16 µg/kg* (mean value), country: Spain359 (measured at 4th*, 8th, 16th* and 32nd day, lowest conc.: nd after 32 days, intoxication period)

incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no AF; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.5 mg total AF/kg diet, o., for 5 weeks; for detailed information please see the article), conc. range: 0.9–2.1 µg/kg* (mean values), country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

AFLATOXIN G₁ incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³⁵⁹, *control

incidence: 2?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: 0.15*-0.16** µg/kg (mean value), country: Spain³⁵⁹ (measured at 4th, 8th, 16th** and 32nd* day) incidence: ?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc.: 0.1 µg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th, 16th* and 32nd day)

incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no AF; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.5 mg total AF/kg diet, o., for 5 weeks; for detailed information please see the article), conc. range: <0.2–0.6 μg/kg* (mean values), country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

AFLATOXIN G_{2a} incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no AF; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: 1.5 mg total AF/kg diet, o., for 5 weeks; for detailed information please see the article), conc. range: <0.2–0.6 μg/kg* (mean values), country: Australia⁴⁰⁰, *after 5 weeks of AF-administration

AFLATOXIN M₁ incidence: 20/20*, sa. const.: White Leghorn chicks, age: 14 days, contamination: no AFB₁ (for detailed

information please see the article), conc.: nd, country: USA53, *control incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 120 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 525 ng AFB,/g ration + 25% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 630 ng AFB,/g ration + 10% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 700 ng AFB₁/g ration for 28 days; for detailed information please see the article), conc.: 0.095 ng/g* (mean value), country: USA53, *after 28 days of AFB,administration

incidence: ?/?*, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 3?/3, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: artificial (dose: 50 μg AFB₁/kg feed, o., for up to 64 days; for detailed information please see the article), conc.: 0.36 μg/kg*, country: Italy²³², *after 64 days (also measured after 36 days but conc.: nd)

incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 5/6, sa. const.: Hubbard White Mountain broilers, age: 1 week,

contamination: artificial (dose: 2,057 µg AFB₁/kg feed + 1,323 µg AFB₂/kg feed, o., for 5 weeks), conc. range: \leq 0.14 µg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³⁵⁹, *control incidence: 12?/16?, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.09 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: nd after 4 and 32 days, intoxication period)

incidence: 16?/16?, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.03 µg/kg* (mean value), country: Spain³59 (measured at 4th*, 8th*, 16th* and 32nd* day, lowest conc.: nd after 8 days, intoxication period)

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control

incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μ g AFB₁ + 50 μ g OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: <0.01 μ g/kg* (mean value), country: Italy⁵¹⁵, *after 36 and 64 days

incidence: 30/30*, sa. const.: hybrid male and female Arbor Acor broiler chickens, age: 1 day, contamination: no AFB₁ and/or

CP (for detailed information please see the article), conc.: nd, country:
Thailand⁵⁷⁴, *control
incidence: 30?/30, sa. const.: hybrid male and female Arbor Acor broiler chickens, age: 1 day, contamination: artificial (dose: different conc. of AFB₁ with/ without CP fed for different periods; for detailed information please see the article), conc. range: ≤0.32 ppb*** (mean value), country: Thailand⁵⁷⁴, *AFM₁-residues, **after 6 weeks of AFB₁-administration

AFLATOXIN M,

incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³57, *control incidence: 6/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 µg AFB₁/kg feed and 1,323 µg AFB₂/kg feed, o., for 5 weeks), conc. range: ≤6.53 µg/kg*, country: USA³57, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

AFLATOXIN

incidence: 25/25*, sa. const.: Hubbard chickens, age: 1 day, contamination: no AFB,, (for detailed information please see the article), conc.: nd, country: Egypt372, *control incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 100 ppb AFB,, o., for 6 weeks; for detailed information please see the article), conc. range: \leq 10.20 ng/g* **, country: Egypt³⁷², *AF-residues, **after 3 weeks of AFB, -administration (also measured after 4 and 5 weeks, lowest conc.: 3.93 ng/g after 4 weeks) incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 250 ppb AFB, o., for 6 weeks; for detailed information please see the article), conc. range: ≤13.42 ng/g***, country: Egypt372, *AF-residues, **after

3 weeks of AFB, -administration (also measured after 4 and 5 weeks, lowest conc.: 10.0 ng/g after 5 weeks) incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 500 ppb AFB,, o., for 6 weeks; for detailed information please see the article), conc. range: ≤18.44 ng/g***, country: Egypt³⁷², *AF-residues, **after 4 weeks of AFB, -administration (also measured after 3 and 5 weeks, lowest conc.: 16.42 ng/g after 3 weeks) incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 750 ppb AFB,, o., for 6 weeks; for detailed information please see the article), conc. range: ≤ 34.93 ng/g***, country: Egypt372, *AF-residues, **after 3 weeks of AFB, -administration (also measured after 4 and 5 weeks, lowest conc.: 21.28 ng/g after 5 weeks)

HT-2 Toxin

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 233 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

3'-Hydroxy HT-2 Toxin

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 1,370 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

OCHRATOXIN A

incidence: 4?/4, sa. const.: New Hampshire-Leghorn cross chicks, age: 36 days, contamination: artificial (dose: feeding 1 ppm OTA for 5 weeks and then given a single dose of 50 µg ³H-OTA per chick by intubation (OTA labeled and unlabeled); for detailed information please see the article), conc. range: ≤4.07 ppb* (mean value), country: USA³¹⁶, *after 8 h (also measured after 24 and 48 h, lowest conc.: 0.14 ppb after 48 h)

incidence: 30/30*, sa. const.: male and female Hubbard chicks, age: 1 day,

contamination: no OTA (for detailed information please see the article), conc.: nd, country: Canada376, *control incidence: 6?/6, sa. const.: male and female Hubbard chicks, age: 1 day. contamination: artificial (dose: 2.0 ppm OTA, o., for 8 weeks; for detailed information please see the article), conc.: 24 ppb* ** (mean value), country: Canada³⁷⁶, *in broilers, **0 h after withdrawal from treated feed incidence: 6/6, sa. const.: male and female Hubbard chicks, age: 1 day, contamination: artificial (dose: 2.0 ppm OTA, o., for 8 weeks; for detailed information please see the article), conc.: nd* **, country: Canada³⁷⁶, *in broilers, **24 h after withdrawal from treated feed incidence: 6/6, sa. const.: male and female Hubbard chicks, age: 1 day, contamination: artificial (dose: 2.0 ppm OTA, o., for 8 weeks; for detailed information please see the article), conc.: nd* **, country: Canada376, *in broilers, **48 h after withdrawal from treated feed

incidence: 10/10*, sa. const.: male commercial broilers, age: 3 weeks, contamination: no OTA; for detailed information please see the article), conc.: nr, country: Australia⁴⁰⁰, *control incidence: ?/10, sa. const.: male commercial broilers, age: 3 weeks, contamination: artificial (dose: **1.0 mg OTA**/kg diet, o., for 5 weeks), conc. range: 1.5–2.5 µg/kg* (mean values), country: Australia⁴⁰⁰, *after 5 weeks of OTA-administration

incidence: 4/4*, sa. const.: wingbanded Ross broiler chicks, age: 28 days, Ø wt.: 835.19 g, contamination: no OTA (for detailed information please see the article), conc.: nd, country: The Netherlands/Hungary⁴⁷³, *control incidence: 4?/4, sa. const.: wingbanded Ross broiler chicks, age: 28 days, Ø wt.: 835.19 g, contamination: artificial (dose: a total of **0.5 mg OTA/week**, o., for 4 weeks;

for detailed information please see the article), conc. range: ≤1.45 ng/g* (mean value), country: The Netherlands/ Hungary⁴⁷³, *after 7 days of OTA-administration (also measured after 14, 21 and 28 days, lowest conc.: 0.2 ng/g after 28 days)

incidence: 3/3*, sa. const.: male Hubbard strain chicks, age: 35 days, contamination: no OTA alone or OTA/PA (for detailed information please see the article), conc.: nd, country: Italy491, *control incidence: 3?/3, sa. const.: male Hubbard strain chicks, age: 35 days, contamination: artificial (dose: 100 µg OTA/kg feed, o., for 31 days; for detailed information please see the article), conc.: 2.1 μ g/kg* (mean value), country: Italy491, *after 31 days incidence: 3?/3, sa. const.: male Hubbard strain chicks, age: 35 days, contamination: artificial (dose: 100 µg OTA + 1 mg PA/kg feed, o., for 31 days; for detailed information please see the article), conc.: 5.0 µg/kg* (mean value), country: Italy491, *after 31 days

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control

incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μg AFB $_{\rm l}$ /kg feed + 50 μg OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: 38.0*–40.0** μg /kg (mean value), country: Italy 515 , after 64* and 36** days incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB $_{\rm l}$ + OTA (for detailed information please see the article), conc.: nr, country: Italy 515 , *control

incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 µg

AFB₁/kg feed + 50 μg OTA/kg feed, o., for 36 days; for detailed information please see the article), conc. range: $1.2^*-2.0^{**}$ μg/kg (mean values), country: Italy⁵¹⁵, 14^{**} or 28^* days after withdrawal from treatment

incidence: ?/?*, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Poland531, *control incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 0.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: nd*, country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 32.8 µg/kg* (mean value), country: Poland⁵³¹, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 14.2 µg/kg* (mean value), country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 2.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 34.3 μg/kg* (mean value), country: Poland⁵³¹, *after 8 weeks of OTA-administration

incidence: ?/?*, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Poland⁵³¹, *control incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day,

contamination: artificial (dose: 0.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: nd*, country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 22.8 µg/kg* (mean value), country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 39.8 µg/kg* (mean value), country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 2.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 58.6 µg/kg* (mean value), country: Poland531, *after 8 weeks of OTA-administration

incidence: 27/27*, sa. const.: White Leghorn chickens, age: 1 day, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Denmark566, *control incidence: 27?/27, sa. const.: White Leghorn chickens, age: 1 day, contamination: artificial (dose: 0.3 mg OTA/kg feed, for 341 days), conc.: ≈2 µg/kg* (mean value), country: Denmark⁵⁶⁶, *after 341 days incidence: 27?/27, sa. const.: White Leghorn chickens, age: 1 day, contamination: artificial (dose: 1 mg OTA/ kg feed, for 341 days), conc.: ≈5 µg/kg* (mean value), country: Denmark⁵⁶⁶, *after 341 days incidence: 5?/5, sa. const.: White Leghorn chickens, age: 1 day,

contamination: artificial (dose: 1 mg OTA/kg feed, for the last 14 of 314 days; for detailed information please see the article), conc.: \approx 8.5 μ g/kg* (mean value), country: Denmark⁵⁶⁶, *after 341 days

incidence: ?/?*, sa. const.: newly hatched chicks of Rhode Island Red strain. contamination: no OTA (for detailed information please see the article), conc.: nd, country: Poland590, *control incidence: ?/?, sa. const.: newly hatched chicks of Rhode Island Red strain. contamination: artificial (dose: cockerels and hens received 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 26.0 ppb*, country: Poland590, *after? weeks incidence: ?/?, sa. const.: newly hatched chicks of Rhode Island Red strain, contamination: artificial (dose: cockerels and hens received 4.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 83.0 ppb*, country: Poland590, *after? weeks

incidence: ?/?*, sa. const.: broilers. contamination: no OTA (for detailed information please see the article), conc.: 0.03 μg/kg** (mean value), country: Germany601, *control, **after 6 weeks incidence: ?/?, sa. const.: broilers, contamination: artificial (dose: 1.5 mg OTA/kg in the diet, o., for 3 weeks afterwards OTA-free diet for 3 weeks (for detailed information please see the article), conc.: 0.02 µg/kg* (mean value), country: Germany601, *after 6 weeks incidence: ?/?, sa. const.: broilers, contamination: artificial (dose: OTA-free diet for 3 weeks afterwards 1.5 mg OTA/kg in the diet, o., for 3 weeks (for detailed information please see the article), conc.: 16.16 μg/kg* (mean value), country: Germany601, *after 6 weeks incidence: ?/?, sa. const.: broilers, contamination: artificial (dose: 1.5 mg OTA/kg in the diet, o., for 6 weeks (for detailed information please see the

article), conc.: 10.98 μg/kg* (mean value), country: Germany⁶⁰¹, *after 6 weeks

PENICILLIC ACID

incidence: 3/3*, sa. const.: Hyline W-36 male laying strain chickens, age: 7-days, contamination: no PA, conc.: nr, country: USA524, *control incidence: 3/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7-days, contamination: artificial (dose: 50 mg PA/kg b. wt., o. by intubation, once), conc.: nd*, country: USA524, *after 4 h incidence: 3/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7-days, contamination: artificial (dose: 100 mg PA/kg b. wt., o. by intubation, once), conc.: nd* (mean value), country: USA524, *after 4 h incidence: 3?/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 200 mg PA/kg b. wt., o. by intubation, once), conc.: 5.1 ng/g* (mean value), country: USA524, *after 4 h incidence: 3?/3, sa. const.: Hyline W-36 male laying strain chickens, age: 7 days, contamination: artificial (dose: 400 mg PA/kg b. wt., o. by intubation, once), conc.: 6.8 ng/g* (mean value), country: USA524, *after 4 h

T-2 Toxin

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 4 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

T-2 Tetraol

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 18 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

4-ACETOXY T-2 TETRAOL

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p.,

once), conc.: 20 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

15-ACETOXY T-2 TETRAOL incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 22 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

T-2 Triol

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: 210 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

ZEARALENONE

incidence: 6/6*, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA¹⁰⁶, *control incidence: 4?/4, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial

(dose: 5.0 mg ZEA (labeled)/kg b. wt., intubated into the crop, once; for detailed information please see the article), conc. range: ≤2,095.0 ppb* ** *** (mean value), country: USA106, *eq. conc., **after 0.5 h (also measured after 4, 8, 12, 24 and 48 h, lowest conc.: 161.2 ppb after 48 h), ***ZEA and/or metabolites incidence: 5?/11, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 10 mg ZEA/bird for 6 days and intubation of 20.92 mg ZEA/ml at day 9 (ZEA labeled and unlabeled); for detailed information please see the article), conc. range: ≤681 ppb*, country: USA106, *after 0.5 h (also measured after 4, 8 and 24 h, lowest conc.: 0.0 ppm after 24 h)

incidence: 5/5*, sa. const.: Leghorn broilers, age: 2 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Romania/France⁶³⁵, *control incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: **25 mg ZEA/**kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 3.01 µg/g*, country: Romania/France⁶³⁵, after 24 h of the last treatment

incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., once and before 80 mg PB/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 3.69 µg/g*, country: Romania/France⁶³⁵, after 24 h of the last treatment

α-Zearalenol

incidence: 6/6*, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA¹⁰⁶, *control

incidence: 3?/11, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 10 mg ZEA/bird for 6 days and intubation of 20.92 mg ZEA/ml at day 9 (ZEA labeled and unlabeled); for detailed information please see the article), conc. range: ≤1,200 ppb*, country: USA¹⁰⁶, *after 0.5 h (also measured after 4, 8, 24 and 48 h, lowest conc.: 0.0 ppm after 48 h)

incidence: 5/5*, sa. const.: Leghorn broilers, age: 2 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Romania/France⁶³⁵, *control incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 26.46 μg/g*, country: Romania/France⁶³⁵, after 24 h of the last treatment

incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., once and before 80 mg PB/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 5.48 µg/g*, country: Romania/France⁶³⁵, after 24 h of the last treatment

β-ZEARALENOL

incidence: 6/6*, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA¹o6, *control incidence: 3?/11, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 10 mg ZEA/bird for 6 days and intubation of 20.92 mg ZEA/ml at day 9 (ZEA labeled and unlabeled); for detailed information please see the article), conc. range: ≤662 ppb*, country: USA¹o6, *after 0.5 h (also measured after 4, 8, 24 and 48 h, lowest conc.: 0.0 ppm after 48 h)

incidence: 5/5*, sa. const.: Leghorn broilers, age: 2 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Romania/France⁶³⁵, *control incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 23.69 µg/g*, country: Romania/France⁶³⁵, after 24 h of the last treatment incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., once and before 80 mg PB/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 9.57 µg/g*, country: Romania/ France⁶³⁵, after 24 h of the last treatment

Chicken lung may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 2/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈0.3 ppm*, country: USA⁶¹⁷, *after 12 h (also measured after 48 and 72 h) incidence: 1/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc.: ≈0.3 ppm*, country: USA⁶¹⁷, *after 24 h (also measured after 48 and 72 h)

HT-2 Toxin

incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt., i.p., once), conc.: <1 ppb* (mean value), country: USA¹⁴⁵, *after 18 h

3'-HYDROXY HT-2 TOXIN incidence: 12?/12, sa. const.: chickens, age: 5 weeks, contamination: artificial (dose: 3.5 mg T-2 toxin/kg b. wt.., i.p.., once), conc.: 3 ppb* (mean value),

country: USA145, *after 18 h

OCHRATOXIN A

incidence: 4?/4, sa. const.: New Hampshire-Leghorn cross chicks, age: 36 days, contamination: artificial (dose: feeding 1 ppm OTA for 5 weeks and then given a single dose of 50 μg ³H-OA per chick by intubation (OTA unlabeled and labeled); for detailed information please see the article), conc. range: ≤4.99 ppb* (mean value), country: USA³¹⁶, *after 48 h (also measured after 8 and 24 h, lowest conc.: 0.49 ppb after 24 h)

Chicken meat may contain the following mycotoxins and/or their metabolites:

ZEARALANONE

incidence: 5/5*, sa. const.: Leghorn broilers, age: 2 weeks, contamination: no

ZEA (for detailed information please see the article), conc.: nr, country: Romania/ France635, *control incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 1.72 ng/g* dry matter, country: Romania/France⁶³⁵, after 24 h of the last treatment incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., once and before 80 mg PB/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 0.56 ng/g* dry matter, country: Romania/France⁶³⁵, after 24 h of the last treatment

B-ZEARALANOL

incidence: 5/5*, sa. const.: Leghorn broilers, age: 2 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Romania/France⁶³⁵, *control incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 5.61 ng/g* dry matter, country: Romania/France⁶³⁵, after 24 h of the last treatment incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., once and before 80 mg PB/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 7.10 ng/g* dry matter, country: Romania/France⁶³⁵, after 24 h of the last treatment

ZEARALENONE

incidence: 5/5*, sa. const.: Leghorn broilers, age: 2 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Romania/France⁶³⁵, *control incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination:

artificial (dose: 25 mg ZEA/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 35.72 ng/g* dry matter, country: Romania/France⁶³⁵, after 24 h of the last treatment incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., once and before 80 mg PB/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 22.98 ng/g* dry matter, country: Romania/France⁶³⁵, after 24 h of the last treatment

α-Zearalenol

incidence: 5/5*, sa. const.: Leghorn broilers, age: 2 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Romania/France⁶³⁵, *control incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 13.42 ng/g* dry matter, country: Romania/France⁶³⁵, after 24 h of the last treatment incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., once and before 80 mg PB/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 4.08 ng/g* dry matter, country: Romania/France⁶³⁵, after 24 h of the last treatment

B-ZEARALENOL

incidence: 5/5*, sa. const.: Leghorn broilers, age: 2 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Romania/France⁶³⁵, *control incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 11.47 ng/g* dry matter, country: Romania/France⁶³⁵, after 24 h of the last treatment

incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., once and before 80 mg PB/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 5.48 ng/g* dry matter, country: Romania/France⁶³⁵, after 24 h of the last treatment

Chicken muscle may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 20/20*, sa. const.: White Leghorn chicks, age: 14 days, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA53, *control incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 120 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 525 ng AFB_1/g ration + 25% soil for 28 days; for detailed information please see the article), conc.: 0.004 ng/g* (mean value), country: USA53, *after 28 days of AFB, -administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 630 ng AFB₁/g ration + 10% soil for 28 days; for detailed information please see the article), conc.: 0.003 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 700 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: 0.014 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration

incidence: 16?/16?*, sa. const.: Hybro broiler chickens, age: 23 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.21* μg/kg (mean value), country: Spain³⁵⁹ (measured at 4th*, 8th*, 16th and 32nd day, lowest conc.: 0.07 µg/kg after 16 days, intoxication period) incidence: 16?/16, sa. const.: Hybro broiler chickens, age: 23 days, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.09 µg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: 0.01 µg/kg after 8 days, intoxication period)

incidence: ?/?*, sa. const.: broiler chicks, contamination: no AF (for detailed information please see the article), conc.: nd, country: India³⁹⁸, *control incidence: ?/?, sa. const.: broiler chicks, contamination: artificial (dose: **0.5 ppm** AF; for detailed information please see the article), conc. range: ≤2.0 ppb*, country: India³⁹⁸, *after 45 days

incidence: 30/30*, sa. const.: hybrid male and female Arbor Acor broiler chickens, age: 1 day, contamination: no AFB, and/or CP (for detailed information please see the article), conc.: nd, country: Thailand574, *control incidence: 30?/30, sa. const.: hybrid male and female Arbor Acor broiler chickens, age: 1 day, contamination: artificial (dose: different conc. of AFB, with/without CP fed for different periods; for detailed information please see the article), conc.: 0.02 ppb* ** (mean value), country: Thailand⁵⁷⁴, *AFB,residues, **after 6 weeks of AFB,administration

incidence: 30/30*, sa. const.: broiler chicks, age: 1 day, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: India⁵⁹⁵, *control incidence: ?/30, sa. const.: broiler chicks, age: 1 day, contamination: artificial (dose: 20, 40, 60, 80 or 100* ppb AFB₁, o., for 15, 30 or 45 days (for detailed information please see the article), conc.: ≤5.129 ng/g* **, country: India⁵⁹⁵, **after 45 days (also measured after 15 and 30 days, lowest conc.: nd after 15 days)

AFLATOXIN B incidence: 20/20*, sa. const.: White Leghorn chicks, age: 14 days, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA53, *control incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 120 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 525 ng AFB₁/g ration + 25% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 630 ng AFB₁/g ration + 10% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 700 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: 0.002 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration

AFLATOXIN M, incidence: 20/20*, sa. const.: White Leghorn chicks, age: 14 days, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA53, *control incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 120 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: 0.064 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration incidence: 20?/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 525 ng AFB,/g ration + 25% soil for 28 days; for detailed information please see the article), conc.: 0.11 ng/g* (mean value), country: USA53, *after 28 days of AFB,-administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 630 ng $AFB_{,/g}$ ration + 10% soil for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration incidence: 20/20, sa. const.: White Leghorn chicks, age: 14 days, contamination: artificial (dose: 700 ng AFB,/g ration for 28 days; for detailed information please see the article), conc.: nd*, country: USA53, *after 28 days of AFB,-administration

incidence: 30/30*, sa. const.: hybrid male and female Arbor Acor broiler chickens, age: 1 day, contamination: no AFB₁ and/or CP (for detailed information please see the article), conc.: nd, country: Thailand⁵⁷⁴, *control incidence: 30?/30, sa. const.: hybrid male and female Arbor Acor broiler chickens, age: 1 day, contamination: artificial (dose: **different conc. of AFB₁** with/without CP fed for different periods; for detailed information please see the article), conc. range: ≤0.08 ppb* ** (mean value), country: Thailand⁵⁷⁴, *AFM₁-residues, **after 6 weeks of AFB₁-administration

CYCLOPIAZONIC ACID

incidence: 10/10*, sa. const.: unsexed White Leghorn chickens, age: 200 days, contamination: no CPA (for detailed information please see the article), conc.: nr, country: USA557, *control incidence: 10?/10, sa. const.: unsexed White Leghorn chickens, age: 200 days, contamination: artificial (dose: 0.5 mg CPA/kg b. wt., by crop gavage, once; for detailed information please see the article), conc.: 350 ppb* (mean value), country: USA557, *after 3 h (also measured after 24, 48 and 96 h but lower residue values recorded, lowest conc.: ≈nd after 48 h) incidence: 10?/10, sa. const.: unsexed White Leghorn chickens, age: 200 days, contamination: artificial (dose: 5.0 mg CPA/kg b. wt., by crop gavage, once; for detailed information please see the article), conc.: 2,000 ppb* (mean value), country: USA557, *after 3 h (also measured after 24, 48 and 96 h but lower residue values recorded, lowest conc.: ≈50 ppb after 96 h) incidence: 10?/10, sa. const.: unsexed White Leghorn chickens, age: 200 days, contamination: artificial (dose: 10.0 mg CPA/kg b. wt., by crop gavage, once; for detailed information please see the article), conc.: 2,500 ppb* (mean value), country: USA557, *after 3 h (also measured after 24, 48 and 96 h but lower residue values recorded, lowest conc.: ≈200 ppb after 96 h)

OCHRATOXIN A

incidence: 27/27*, sa. const.: White Leghorn chickens, age: 1 day, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Denmark⁵⁶⁶, *control incidence: 27?/27, sa. const.: White Leghorn chickens, age: 1 day, contamination: artificial (dose: 0.3 mg OTA/kg feed, for 341 days), conc.: ≈2 µg/kg* (mean value), country: Denmark⁵⁶⁶, *after 341 days

incidence: 27?/27, sa. const.: White Leghorn chickens, age: 1 day, contamination: artificial (dose: 1 mg OTA/kg feed, for 341 days), conc.: ≈2 μg/kg* (mean value), country: Denmark⁵⁶⁶, *after 341 days incidence: 5?/5, sa. const.: White Leghorn chickens, age: 1 day, contamination: artificial (dose: 1 mg OTA/kg feed, for the last 14 of 314 days; for detailed information please see the article), conc.: ≈6 μg/kg* (mean value), country: Denmark⁵⁶⁶, *after 341 days

incidence: ?/?*, sa. const.: broilers, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany⁶⁰¹, *control incidence: ?/?, sa. const.: broilers, contamination: artificial (dose: 1.5 mg OTA/kg in the diet, o., for 3 weeks afterwards OTA-free diet for 3 weeks (for detailed information please see the article), conc.: nd*, country: Germany⁶⁰¹, *after 6 weeks incidence: ?/?, sa. const.: broilers, contamination: artificial (dose: OTA-free diet for 3 weeks afterwards 1.5 mg OTA/ kg in the diet, o., for 3 weeks (for detailed information please see the article), conc.: 7.46 µg/kg* (mean value), country: Germany601, *after 6 weeks incidence: ?/?, sa. const.: broilers, contamination: artificial (dose: 1.5 mg OTA/kg in the diet, o., for 6 weeks (for detailed information please see the article), conc.: 3.02 μg/kg* (mean value), country: Germany601, *after 6 weeks

ZEARALENONE

incidence: 6/6*, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA 106, *control incidence: 4?/4, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 5.0 mg ZEA (labeled)/kg b.w., intubated into the crop, once; for detailed

information please see the article), conc. range: ≤111.1 ppb* ** *** (mean value), country: USA¹⁰⁶, *eq. conc., **after 24 h (also measured after 0.5, 4, 8, 12 and 48 h, lowest conc.: 35.0 ppb after 0.5 h), ***ZEA and/or metabolites

Chicken muscle, breast may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 17/17*, sa. const.: broiler chickens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: Germany⁹⁰, *control incidence: ?/113, sa. const.: broiler chickens, contamination: artificial (dose: 15.0 ppm AFB₁, o., for 56 days; for detailed information please see the article), conc. range: ≤12.20 ppb* **, country: Germany⁹⁰, *AFB₁-residues, **after 8 weeks of AFB₁-administration (lower doses also applicated and lower residue values recorded)

incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³57, *control incidence: 5/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 µg AFB₁/kg feed + 1,323 µg AFB₂/kg feed, o., for 5 weeks), conc. range: ≤0.08 µg/kg*, country: USA³57, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

incidence: 2/4, sa. const.: chickens, age: 3 weeks, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc. range: ≈0.15–0.8 ppm*, country: USA⁶¹⁷, *after 12 h (also measured after 48 and 72 h) incidence: 1/4, sa. const.: chickens, age: 3 weeks, contamination: artificial

(dose: 1 mg AFB₁ (labeled and unlabeled), o., once; for detailed information please see the article), conc.: ≈0.15 ppm*, country: USA⁶¹⁷, *after 24 h (also measured after 48 and 72 h)

AFLATOXIN B_2 incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 6/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 μg AFB₁/kg feed + 1,323 μg AFB₂/kg feed, o., for 5 weeks), conc. range: \leq 0.05 μg/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

AFLATOXIN M_1 incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 5/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: $2,057 \mu g$ AFB₁/kg feed + $1,323 \mu g$ AFB₂/kg feed, o., for 5 weeks), conc. range: $\le 0.05 \mu g/kg^*$, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

AFLATOXIN M_2 incidence: 6/6*, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 2/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 μ g AFB₁/kg feed + 1,323 μ g AFB₂/kg feed, o., for 5 weeks), conc. range: \leq 0.03 μ g/kg*, \emptyset conc.: 0.025 μ g/kg*, country: USA³⁵⁷, *2 days after withdrawal of the contaminated feed (also measured after 0, 1 and 4 days, lowest conc.: nd after 4 days)

AFLATOXIN

incidence: 25/25*, sa. const.: Hubbard chickens, age: 1 day, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: Egypt³⁷², *control incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 100 ppb AFB,, o., for 6 weeks; for detailed information please see the article), conc. range: ≤8.03 ng/g* **, country: Egypt372, *AF-residues, **after 5 weeks of AFB,-administration (also measured after 3 and 4 weeks, lowest conc.: 2.42 ng/g after 3 weeks) incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 250 ppb AFB,, o., for 6 weeks; for detailed information please see the article), conc. range: ≤11.03 ng/g***, country: Egypt³⁷², *AF-residues, **after 5 weeks of AFB,-administration (also measured after 3 and 4 weeks, lowest conc.: 7.66 ng/g after 3 weeks) incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 500 ppb AFB,, o., for 6 weeks; for detailed information please see the article), conc. range: ≤ 18.71 ng/g***, country: Egypt³⁷², *AF-residues, **after 5 weeks of AFB, -administration (also measured after 3 and 4 weeks, lowest conc.: 14.55 ng/g after 3 weeks) incidence: ?/25, sa. const.: Hubbard chickens, age: 1 day, contamination: artificial (dose: 750 ppb AFB, o., for 6 weeks; for detailed information please see the article), conc. range: $\leq 23.45 \text{ ng/g* **}$, country: Egypt³⁷², *AF-residues, **after 4 weeks of AFB, administration (also measured after 3 and 5 weeks, lowest conc.: 18.18 ng/g after 3 weeks)

Chicken muscle, leg may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B_1 incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB $_1$ + AFB $_2$, conc.: nd, country: USA 357 , *control

incidence: 6/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: 2,057 μ g AFB₁/kg feed + 1,323 μ g AFB₂/kg feed, o., for 5 weeks), conc. range: \leq 0.16 μ g/kg*, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest conc.: nd after 4 days)

AFLATOXIN B,

incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 2/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: **2,057 µg** AFB₁/kg feed + **1,323 µg** AFB₂/kg feed, o., for 5 weeks), conc. range: $\leq 0.06 \mu g/kg^*$, country: USA³⁵⁷, *1 day after withdrawal of the contaminated feed (also measured after 0, 2 and 4 days, lowest conc.: nd after 4 days)

AFLATOXIN M,

incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 6/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: **2,057 µg** AFB₁/kg feed + **1,323 µg** AFB₂/kg feed, o., for 5 weeks), conc. range: $\leq 0.06 \mu g/kg^*$, country: USA³⁵⁷, *3 h after withdrawal of the contaminated feed (also measured after 1, 2 and 4 days, lowest value.: nd after 4 days)

AFLATOXIN M₂ incidence: 6/6

incidence: $6/6^*$, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: no AFB₁ + AFB₂, conc.: nd, country: USA³⁵⁷, *control incidence: 3/6, sa. const.: Hubbard White Mountain broilers, age: 1 week, contamination: artificial (dose: **2,057 µg** AFB₁/kg feed + **1,323 µg** AFB₂/kg feed, o., for 5 weeks), conc. range: $\le 0.08 \mu g/kg^*$, country: USA³⁵⁷, *1 day after withdrawal of the contaminated feed (also measured

after 0, 2 and 4 days, lowest conc.: nd after 4 days)

Ochratoxin A incidence: 4?/4, sa. const.: New Hampshire-Leghorn cross chicks, age: 36 days, contamination: artificial (dose: feeding 1 ppm OTA for 5 weeks and then given a single dose of 50 μg ³H-OTA per chick by intubation (OTA labeled and unlabeled); for detailed information please see the article), conc. range: ≤0.21 ppb* (mean value), country: USA³¹⁶, *after 8 h (also measured after 24 and 48 h, lowest conc.: 0.04 ppb after 48 h)

Chicken muscle, red may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A incidence: ?/?*, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Poland531, *control incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 0.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: nd*, country: Poland⁵³¹, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 0.8 µg/kg* (mean value), country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: nd*, country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day,

contamination: artificial (dose: **2.0 mg** OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 3.5 µg/kg* (mean value), country: Poland⁵³¹, *after 8 weeks of OTA-administration

incidence: ?/?*, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Poland531, *control incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 0.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: nd*, country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 2.8 μg/kg* (mean value), country: Poland⁵³¹, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 1.0 µg/kg* (mean value), country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 2.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 7.5 μg/kg* (mean value), country: Poland531, *after 8 weeks of OTA-administration

Chicken muscle, thigh may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB₁ + OTA

(for detailed information please see the article), conc.: nr, country: Italy 515 , *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μg AFB $_{1}$ /kg feed + 50 μg OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: <0.04 μg /kg* (mean value), country: Italy 515 , *after 36 and 64 days

AFLATOXIN B₁ incidence: 17/17*, sa. const.: broiler chickens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: Germany⁹⁰, *control

incidence: ?/113, sa. const.: broiler chickens, contamination: artificial (dose: 15 ppm AFB₁, o., for 56 days; for detailed information please see the article), conc. range: ≤24.20 ppb* **, country: Germany⁹⁰, *AFB₁-residues, **after 8 weeks of AFB₁-administration (lower doses also applicated and lower residue values recorded)

incidence: ?/?*, sa. const.: Hubbard strain

male broilers, age: 14 days, contamination: no AFB, (for detailed information please see the article), conc.: nr, country: Italy²³², incidence: 3?/3, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: artificial (dose: 50 µg AFB,/kg feed, o., for up to 64 days; for detailed information please see the article), conc.: 0.01 μg/kg* (mean value), country: Italy232, *after 64 days (also measured after 36 days but conc.: nd) incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country: Italy515, *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 µg AFB_1/kg feed + 50 μ g OTA/kg feed, o., for up to 64 days; for detailed

information please see the article), conc. range: 0.04*–0.05** μg/kg (mean values), country: Italy⁵¹⁵, after 36* and 64** days

AFLATOXIN M₁

incidence: ?/?*, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 3?/3, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: artificial (dose: 50 μg AFB₁/kg feed, o., for up to 64 days; for detailed information please see the article), conc.: 0.02 $\mu g/kg^*$ (mean value), country: Italy²³², *after 36 and 64 days

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB $_1$ + OTA (for detailed information please see the article), conc.: nr, country: Italy 515 , *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μ g AFB $_1$ /kg feed + 50 μ g OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: <0.01 μ g/kg (mean value), country: Italy 515 , *after 36 and 64 days

OCHRATOXIN A

incidence: 4/4*, sa. const.: wingbanded Ross broiler chicks, age: 28 days, Ø wt.: 835.19 g, contamination: no OTA (for detailed information please see the article), conc.: nd, country: The Netherlands/Hungary⁴⁷³, *control incidence: 4?/4, sa. const.: wingbanded Ross broiler chicks, age: 28 days, Ø wt.: 835.19 g, contamination: artificial (dose: a total of 0.5 mg OTA/week, o., for 4 weeks; for detailed information please see the article), conc. range: ≈≤0.06 µg/kg* (mean value), country: The Netherlands/Hungary473, *after 21 days of OTA-administration (also measured after 7 and 14 days, lowest value conc.: nd after 7 and 14 days)

incidence: 3/3*, sa. const.: male Hubbard strain chicks, age: 35 days, contamination: no OTA alone/or OTA/PA (for detailed information please see the article), conc.: nd, country: Italy491, *control incidence: 3?/3, sa. const.: male Hubbard strain chicks, age: 35 days, contamination: artificial (dose: 100 µg OTA/kg feed, o., for 31 days; for detailed information please see the article), conc.: tr*, country: Italy491, *after 31 days incidence: 3?/3, sa. const.: male Hubbard strain chicks, age: 35 days, contamination: artificial (dose: 100 µg OTA + 1 mg PA/kg feed, o., for 31 days; for detailed information please see the article), conc.: tr*, country: Italy491, *after 31 days

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country: Italy515, *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 µg AFB,/kg feed + 50 µg OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: $1.9*-4.2** \mu g/kg$ (mean value), country: Italy515, after 36* and 64** days incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country: Italy515, *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 µg AFB,/kg feed + $50 \mu g$ OTA/kg feed, o., for 36 days; for detailed information please see the article), conc. range: $<0.5*-0.8** \mu g/kg$ (mean values), country: Italy515, 14** or 28* days after withdrawal from treatment

Chicken muscle, white may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/?*, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Poland⁵³¹, *control incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 0.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: nd*, country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: nd*, country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 3.0 µg/kg* (mean value), country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: male Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 2.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 4.5 µg/kg* (mean value), country: Poland531, *after 8 weeks of OTA-administration

incidence: ?/?*, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Poland⁵³¹, *control incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: **0.5 mg OTA**/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: nd*, country: Poland⁵³¹, *after 8 weeks of OTA-administration

incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: nd*, country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 1.5 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 5.0 µg/kg* (mean value), country: Poland531, *after 8 weeks of OTA-administration incidence: ?/?, sa. const.: female Euribird broiler chickens, age: 1 day, contamination: artificial (dose: 2.0 mg OTA/kg feed, o., for 8 weeks; for detailed information please see the article), conc.: 8.5 μg/kg* (mean value), country: Poland⁵³¹, *after 8 weeks of OTA-administration

Chicken plasma may contain the following mycotoxins and/or their metabolites:

incidence: ?/6, sa. const.: broiler chickens,

FUSARENON-X

age: 4 weeks, Ø wt.: 1.35 kg, contamination: artificial (dose: 2.2 mg FX/kg b. wt., i.v., once), conc. range: ≈≤270 ng/ml* (mean value), country: Thailand/Japan⁴⁷⁴, *after ≈5 min (also at other min intervals up to 180 min measured, lowest conc.: ≈1.1 ng/ml after 180 min) incidence: ?/6, sa. const.: broiler chickens, age: 4 weeks, Ø wt.: 1.35 kg, contamination: artificial (dose: 2.2 mg FX/kg b. wt., o., once), conc. range: ≈≤5.5 ng/ml* (mean value), country: Thailand/Japan⁴⁷⁴, *after ≈10 min (also at other min intervals up to 120 min measured, lowest conc.: ≈1.1 ng/ml after 120 min)

NIVALENOL

incidence: ?/6, sa. const.: broiler chickens, age: 4 weeks, Ø wt.: 1.35 kg,

contamination: artificial (dose: 2.2 mg FX/kg b. wt., i.v., once), conc. range: ≈≤419 ng/ml* (mean value), country: Thailand/Japan⁴⁷⁴, *after ≈5 min (also at other min intervals up to 240 min measured, lowest conc.: ≈10 ng/ml after 240 min) incidence: ?/6, sa. const.: broiler chickens, age: 4 weeks, Ø wt.: 1.35 kg, contamination: artificial (dose: 2.2 mg FX/kg b. wt., o., once), conc. range: ≈≤240 ng/ml* (mean value), country: Thailand/Japan⁴⁷⁴, *after ≈10 min (also at other min intervals up to 180 min measured, lowest conc.: nd? after 180 min)

OCHRATOXIN A

incidence: ?/6, sa. const.: Leghorn chickens, Ø wt.: 1.84 kg, contamination: artificial (dose: 2 mg OTA/kg, o. (by gavage), once; for detailed information please see the article), conc. range: ≤0.78 µg/ml* (mean value), country: France172, *after 0.33 h (also at other hour intervals up to 4 h measured, lowest conc.: ≈0.1 µg/ml after 4 h) incidence: ?/6, sa. const.: Leghorn chickens, Ø wt.: 1.84 kg, contamination: artificial (dose: 2 mg OTA/kg, i.v., once; for detailed information please see the article), conc. range: ≈≤18 µg/ml* (mean value), country: France¹⁷², *after 0.5 h? (also at other hour intervals up to 4 h measured, lowest conc.: ≈0.3 μg/ml after 4 h)

incidence: 4/4*, sa. const.: wingbanded Ross broiler chicks, age: 28 days, Ø wt.: 835.19 g, contamination: no OTA (for detailed information please see the article), conc.: nd, country: The Netherlands/Hungary⁴⁷³, *control incidence: 4?/4, sa. const.: wingbanded Ross broiler chicks, age: 28 days, Ø wt.: 835.19 g, contamination: artificial (dose: a total of 0.5 mg OTA/week, o., for 4 weeks; for detailed information please see the article), conc. range: ≈≤1.6 ng/ml* (mean value), country: The Netherlands/ Hungary⁴⁷³, *after 14 days of OTA-administration (also measured after

7, 21 and 28 days, lowest conc.: 0.25 ng/g after 28 days)

incidence: ?/?*, sa. const.: newly hatched chicks of Rhode Island Red strain, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Poland⁵⁹⁰, *control incidence: ?/?, sa. const.: newly hatched chicks of Rhode Island Red strain. contamination: artificial (dose: cockerels and hens received 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 2.7 ppb*, country: Poland590, *after? weeks incidence: ?/?, sa. const.: newly hatched chicks of Rhode Island Red strain, contamination: artificial (dose: cockerels and hens received **4.1 ppm OTA** in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 5.5 ppb*, country: Poland590, *after? weeks

ZEARALENONE

incidence: 6/6*, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA106, *control

incidence: 4?/4, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial (dose: 5.0 mg ZEA (labeled)/kg b. wt., intubated into the crop, once; for detailed information please see the article), conc. range: ≤164.3 ppb* ** *** (mean value), country: USA106, *eq. conc., **after 0.5 h (also measured after 4, 8, 12, 24 and 48 h, lowest

75.4 ppb after 48 h), ***ZEA and/or metabolites

incidence: 6/32, sa. const.: male broilers, age: 25-27 days, contamination: artificial (dose: 5.8 µg ZEA/kg b. wt., o. once; for detailed information please see the article), conc. range: ≈10 ng/g* (mean value), country: Germany543, *probably up to 48 h measured

incidence: 5/5*, sa. const.: Leghorn broilers, age: 2 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Romania/France⁶³⁵, *control incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 6.62 ng/ml*, country: Romania/France⁶³⁵, after 24 h of the last treatment incidence: 5?/5, sa. const.: Leghorn broilers, age: 2 weeks, contamination: artificial (dose: 25 mg ZEA/kg b. wt., i.p., once and before 80 mg PB/kg b. wt., i.p., for 3 days (for detailed information please see the article), conc.: 3.40 ng/ml*, country: Romania/France⁶³⁵, after 24 h of the last treatment

α-Zearalenol

incidence: 6/32, sa. const.: male broilers, age: 25-27 days, contamination: artificial (dose: 5.8 µg ZEA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈5 ng/g* (mean value), country: Germany⁵⁴³, *probably up to 48 h measured

Chicken serum may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/?*, sa. const.: broilers, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany601, *control incidence: ?/?, sa. const.: broilers, contamination: artificial (dose: 1.5 mg OTA/kg in the diet, o., for 3 weeks afterwards OTA-free diet for 3 weeks (for detailed information please see the article), conc.: nd*, country: Germany⁶⁰¹, *after 6 weeks incidence: ?/?, sa. const.: broilers, contamination: artificial (dose: OTA-free diet for 3 weeks afterwards 1.5 mg OTA/kg in the diet, o., for 3 weeks

(for detailed information please see the

article), conc.: 1.24 μg/l* (mean value), country: Germany⁶⁰¹, *after 6 weeks incidence: ?/?, sa. const.: broilers, contamination: artificial (dose: **1.5 mg OTA/kg in the diet**, o., for **6 weeks** (for detailed information please see the article), conc.: 4.56 μg/l* (mean value), country: Germany⁶⁰¹, *after 6 weeks

Chicken skin may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB $_1$ + OTA (for detailed information please see the article), conc.: nr, country: Italy 515 , *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μ g AFB $_1$ /kg feed + 50 μ g OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: <0.04 μ g/kg* (mean value), country: Italy 515 , *after 36 and 64 days

AFLATOXIN B,

incidence: ?/?*, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 3?/3, sa. const.: Hubbard strain male broilers, age: 14 days, contamination: artificial (dose: $50 \,\mu g \, AFB_1/kg$ feed, o., for up to 64 days; for detailed information please see the article), conc.: 0.70 $\mu g/kg^*$ (mean value), country: Italy²³², *after 36 days (also measured after 64 days but conc.: nd)

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control

incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: $50 \mu g$ AFB₁/kg feed + $50 \mu g$ OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: $0.03*-0.06** \mu g/kg$ (mean values), country: Italy⁵¹⁵, after 64* and 36** days

AFLATOXIN M,

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB $_1$ + OTA (for detailed information please see the article), conc.: nr, country: Italy 515 , *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 μ g AFB $_1$ /kg feed + 50 μ g OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: <0.01 μ g/kg* (mean value), country: Italy 515 , *after 36 and 64 days

OCHRATOXIN A

incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 µg AFB,/kg feed + 50 μ g OTA/kg feed, o., for up to 64 days; for detailed information please see the article), conc. range: 1.6*-1.8** μg/kg (mean values), country: Italy⁵¹⁵, after 64* and 36** days incidence: ?/?*, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain male broiler chickens, age: 14 days, contamination: artificial (dose: 50 µg AFB_1/kg feed + 50 μ g OTA/kg feed, o., for 36 days; for detailed information

please see the article), conc. range: <0.5*-0.8** µg/kg (mean values), country: Italy⁵¹⁵, 14** or 28* days after withdrawal from treatment

ZEARALENONE

(Ross male X Arbor Acre female), age: 4 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: USA¹⁰⁶, *control incidence: 4?/4, sa. const.: broiler chickens (Ross male X Arbor Acre female), age: 4 weeks, contamination: artificial

incidence: 6/6*, sa. const.: broiler chickens

4 weeks, contamination: artificial (dose: **5.0 mg ZEA** (labeled)/kg b. wt., intubated into the crop, once; for detailed information please see the article), conc. range: ≤70.2 ppb* ** ***, country: USA¹⁰⁶, *eq. conc., **after 24 h (also measured after 0.5, 4, 8, 12 and 48 h, lowest conc.: 43.4 ppb after 48 h), ***ZEA and/or metabolites

Chicken stomach may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 4?/4, sa. const.: New Hampshire-Leghorn cross chicks, age: 36 days, contamination: artificial (dose: feeding 1 ppm OTA for 5 weeks and then given a single dose of 50 μg ³H-OA per chick by intubation (OTA labeled and unlabeled); for detailed information please se the article), conc. range: ≤1.93 ppb* (mean value), country: USA ³¹⁶, *after 8 h (also measured after 24 and 48 h, lowest conc.: 0.13 ppb after 48 h)

Chicken Thigh see Chicken muscle, thigh

Cock see Chicken

Cockerel see Hen

Coho salmon see Fish, coho salmon

Cow

Cow Natural Contamination

Cow liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1 (investigated)/68, sa. const.: livers from crossbred adult cows of the USA, contamination: natural, conc.: 5 ng/g, country: USA⁷⁶

Cow milk, raw may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: 56/120, sa. const.: milk from cows of Iran, contamination: natural, conc. range: 0.25–22.00 ng/l, country: Iran⁴⁵³

AFLATOXIN M,

incidence: 12/50, sa. const.: milk, probably from cows, of Egypt, contamination: natural, conc. range: 0.25–3.72 μg/l, Ø conc.: 1 μg/l, country: Egypt² incidence: 61/66, sa. const.: milk from cows of India, contamination: natural, conc. range: 0.110*–0.143** μg/l (mean values), country: India⁴³, *bulk, **individual

incidence: 6/30* sa. const.: milk from cows of Poland, contamination: natural, conc. range: 3.6–10.6 ng/kg, country: Poland/Germany⁴⁴

incidence: $303/6,246^*$, sa. const.: milk from cows of France, contamination: natural, conc. range: $0.05-0.5 \mu g/l$ (284 sa), >0.5 to $\le 5 \mu g/l$ (19 sa), country: France⁴⁵, *and milk powder incidence: ?/?, sa. const.: milk, probably from cows, of the USA?, contamination: probably natural, conc.: $0.07 \mu g/g$, country: USA⁷⁵

incidence: 40/40, sa. const.: milk from cows of the USA, contamination: natural, conc. range: 0.001–0.273 ppb, country: USA⁹⁶

incidence: 46/376, sa. const.: milk from cows of Czechoslovakia, contamination: natural, conc. range: $0.025-0.1~\mu g/l~(44~sa),>0.1~\mu g/l~(2~sa),$ country: Czechoslovakia¹⁵⁸

incidence: 27/89, sa. const.: milk from cows of Czechoslovakia, contamination: natural, conc. range: 0.025–0.1 µg/l (21 sa), 0.1–0.5 µg/l (6 sa), country: Czechoslovakia¹⁵⁹

incidence: 11/22, sa. const.: milk, probably from cows, of Poland, contamination: natural, conc. range: $0.010-0.250~\mu g/l$, country: Poland¹⁶⁰

incidence: 126/235, sa. const.: milk from cows of Italy, contamination: natural, conc. range: 4–1,262 ng/kg, country: Italy¹⁶¹ incidence: 24/27, sa. const.: milk from cows of Italy, contamination: natural, Ø conc.: 27.05 ppt, country: Italy¹⁶² incidence: 24/409, sa. const.: milk,

probably from cows, of the UK, contamination: natural, conc. range: 0.02–0.05 µg/kg (10 sa), 0.05–0.1 µg/kg (6 sa), >0.1 µg/kg (8 sa), country: UK¹⁶³

incidence: 3/71, sa. const.: milk, probably from cows, of the Republic of Cyprus, contamination: natural, conc. range: 0.03–0.04 µg/l, Ø conc.: 0.035 µg/l, country: Republic of Cyprus¹⁶⁴

incidence: 12/61, sa. const.: milk, probably from cows, of Spain, contamination: natural, conc. range: $0.01-0.02 \mu g/kg$ (10 sa), $0.02-0.04 \mu g/kg$ (2 sa), country: Spain¹⁶⁵

incidence: 4/99, sa. const.: milk from cows of Greece, contamination: natural, conc. range: 0.10–0.13 μg/kg, country: Greece¹⁶⁶ incidence: 317/332, sa. const.: milk from cows of Italy, contamination: natural, conc. range: 1–10 ng/kg (168 sa), 11–50 ng/kg (121 sa), 51–100 ng/kg (25 sa), >100–406 ng/kg (3 sa), country: Italy¹⁷⁰ incidence: ?/78*, sa. const.: milk from cows of Italy, contamination: natural, conc. range: <5–93 ng/l, country: Italy¹⁷⁸, *organic milk

incidence: ?/78*, sa. const.: milk from cows of Italy, contamination: natural, conc. range: <5-66 ng/l, country: Italy¹⁷⁸, *conventionally produced milk

incidence: 122/214, sa. const.: milk from cows of Italy, contamination: natural, conc. range: 3–10 ppt (18 sa), 11–50 ppt (92 sa), 51–101 ppt (12 sa), country: Italy²¹⁶

incidence: 6/56, sa. const.: milk from cows of Argentina, contamination: natural, conc. range: 0.012–0.030 µg/l, Ø conc.: 0.016 µg/l country: Argentina²³⁸

incidence: 50/324, sa. const.: milk from cows of the UK, contamination: natural, conc. range: $0.01-0.04 \mu g/kg$ (39 sa), $0.05-0.10 \mu g/kg$ (9 sa), $>0.10-0.18 \mu g/kg$ (2 sa), country: UK²³⁹

incidence: 25/31, sa. const.: milk, probably from cows of Portugal, contamination: natural, conc. range: 0.005-0.010 µg/l $(17 \text{ sa}), 0.011-0.020 \,\mu\text{g/l} (2 \text{ sa}),$ 0.021-0.050 µg/l (6 sa), country: Portugal²⁴⁰ incidence: 1/10*, sa. const.: milk, probably from cows of Turkey, contamination: natural, conc.: 10.8 ng/l, country: Turkey²⁴³, *5 raw and 5 pasteurized incidence: 10/12, sa. const.: milk from cows of Austria, contamination: natural, conc. range: 0-2 ng/kg (1 sa), 2-5 ng/kg (3 sa), 5-10 ng/kg (2 sa), 10-50 ng/kg (3 sa), 51.8 ng/kg (1 sa), country: Austria²⁴⁵ incidence: 22/30*, sa. const.: milk from cows of Greece, contamination: natural, conc. range: 5-10 ng/l (7 sa), 11-20 ng/l (10 sa), 21-50 ng/l (4 sa), 55 ng/l (1 sa), country: Greece²⁴⁶, * from December 1999 to May 2000

incidence: 18/28*, sa. const.: milk from cows of Greece, contamination: natural, conc. range: 5–10 ng/l (3 sa), 11–20 ng/l (10 sa), 21–50 ng/l (4 sa), 60 ng/l (1 sa), country: Greece²⁴⁶, *from December 2000 to May 2001

incidence: 7/50, sa. const.: milk from cows of Brazil, contamination: natural, conc. range: 0.1–1.68 µg/l, country: Brazil²⁵⁰

incidence: 66/67, sa. const.: milk from cows of Thailand, contamination: natural, conc. range: >0-0.05 ppb (9 sa), >0.05-0.125 (16 sa), >0.125-0.25 ppb (19 sa), >0.25-0.5 ppb (5 sa), >0.5 ppb (17 sa), country: Thailand²⁵¹

incidence: 50/85, sa. const.: milk, probably from cows, of Egypt, contamination: natural, conc. range: nd-15 ppt, country: Egypt²⁵²

incidence: 10/42, sa. const.: milk, probably from cows, of Brazil, contamination: natural, conc. range: 0.29505–1.9749 µg/l, Ø conc.: 0.68485 µg/l, country: Brazil²⁵³

incidence: 84/105*, sa. const.: milk, probably from cows, of The Netherlands, contamination: natural, conc. range: 0.015–0.090 μg/l, country: The Netherlands²⁵⁴, *raw and heat-treated milk sa.

incidence: 5/9*, sa. const.: milk from cows of Kuwait, contamination: natural, conc. range: 0.20–0.21 μ g/l, Ø conc.: 0.206 μ g/l, country: Kuwait²⁵⁵, *fresh

incidence: 36*/67**, sa. const.: milk from cows of Iran, contamination: natural, conc. range: $50-500~\mu g/kg$, country: Iran²⁵⁶, *all contaminated sa. contained AFM₁ and additionally 5 with AFM₁ and AFM₂, 3 with AFM₂, 2 with AFB₁ and AFM₁, **milk sa. only from villages

incidence: 8/31, sa. const.: milk from cows of Italy, contamination: natural, conc. range: 5–24 ng/kg (7 sa), 91 ng/kg (1 sa), country: Italy²⁷⁰

incidence: 23/40*, sa. const.: milk from cows of Pakistan, contamination: natural, conc. range: ?, country: Pakistan²⁷⁷, *urban area

incidence: 22/40*, sa. const.: milk from cows of Pakistan, contamination: natural, conc. range: ?, country: Pakistan²⁷⁷, *semi-urban area incidence: 18/40*, sa. const.: milk from cows of Pakistan, contamination: natural, conc.

range: ?, country: Pakistan²⁷⁷, *rural area incidence: 72/72, sa. const.: milk from cows of Iran, contamination: natural,

conc.: 24.21 ng/l, country: Iran⁴⁵²

incidence: 120/120, sa. const.: milk from cows of Iran, contamination: natural, conc. range: 4–352.3 ng/l, Ø conc.: 102.73 ng/l, country: Iran⁴⁵³

incidence: 13/22, sa. const.: milk from cows of Brazil, contamination: natural, conc. range: >0.01 μ g/l (5 sa), 0.02–0.05 μ g/l (6 sa), >0.05–<0.5 μ g/l (2 sa), country: Brazil⁴⁵⁴

incidence: 9/264*, sa. const.: milk from cows of France, contamination: natural, conc. range: tr (6 sa), 8–26 ng/l (3 sa), country: France⁴⁷⁸, *raw bulk milk incidence: 98/98, sa. const.: milk from cows of Iran, contamination: natural, conc. range: \leq 0.050 µg/l (61 sa), 0.05–0.10 µg/l (29 sa), 0.1–0.392 µg/l (8 sa), country: Iran⁴⁷⁹

incidence: 35/49, sa. const.: milk from cows of Lybia, contamination: natural, conc. range: 0.03-3.13 ng/ml, \emptyset conc.: 0.377 ng/ml, country: Scotland, UK⁵¹⁴ incidence: 85/111, sa. const.: milk from cows of Iran, contamination: natural, conc. range: 0.015-0.28 µg/l, country: Iran⁵¹⁸

incidence: 5/92, sa. const.: milk from cows of Spain, contamination: natural, conc. range: 14.0–24.9 ng/l*, Ø conc.: 20.5 ng/l*, country: Spain⁵³², *using ELISA incidence: 168/168, sa. const.: milk, probably from cows, of Pakistan, contamination: natural, conc. range: 0.01–0.70 µg/l (mean values), country: Pakistan⁵³⁹

incidence: 60/94, sa. const.: milk from cows of Argentina, contamination: natural, conc. range: $nd-0.07 \mu g/l$, country: Argentina⁵⁸⁹

AFLATOXIN $\rm M_2$ incidence: 55/214, sa. const.: milk from cows of Italy, contamination: natural, conc. range: 3–10 ppt (44 sa), 11–17 ppt (11 sa), country: Italy²¹⁶

AFLATOXIN $M_1 + M_2$ incidence: 23/26, sa. const.: milk from cows of the USA, contamination: natural, conc. range: 0.21–1.43 ppb, Ø conc.: 0.59 ppb, country: USA⁴⁷

AFLATOXIN M

incidence: 17/20, sa. const.: milk from cows of Germany, contamination: natural, conc. range: $<1 \mu g/l (13 \text{ sa}), >1 \mu g/l (4 \text{ sa}),$ country: Germany⁸⁹

FUMONISIN B,

incidence: 1/155, sa. const.: milk from cows of the USA, contamination: natural, conc.: 1.29 ng/ml, country: USA²⁷⁵

OCHRATOXIN A

incidence: 3/264*, sa. const.: milk from cows of France, contamination: natural, conc. range: 5.0–6.6 ng/l, country: France⁴⁷⁸, *raw bulk milk

Cow Artificial Contamination

Cow bile may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 0.36 ng/g* **, country: USA⁹², *in cow that died, **after 60 h

AFLATOXIN B,

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 1.6 ng/g* **, country: USA⁹², *in cow that died, **after 60 h

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days, (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the

article), conc.: 3.35 ng/ml*, country: USA⁹³, *after 4 days (thereof 3 days with AFB₃-administration)

incidence: 1/1, sa. const.: lactating dairy cows, contamination: artificial (dose: 10 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cows, contamination: artificial (dose: 50 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cows, contamination: artificial (dose: 250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: nd* **, country: USA319, *after 15 days (thereof 14 days with AFB, -administration), **but significant radioactivity occurred incidence: 1/1, sa. const.: lactating dairy cows, contamination: artificial (dose: 1,250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: 0.26 μg/kg*, country: USA319, *after 15 days (thereof 14 days with AFB, -administration)

Aflatoxin $M_{_1}$

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 16 ng/g* **, country: USA⁹², *in cow that died, **after 60 h

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days, (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 12.37 ng/ml*, country: USA⁹³,

*after 4 days (thereof 3 days with AFB,-administration)

Cow blood may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., 3 days, (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: ≤0.26* and ≤0.47** ng/ml, country: USA93, these highest values measured at the 1st day in the case of cow 1* and cow 2** (always lower values measured up to 4 days (then slaughtered) in the case of cow 1 and always lower values measured up to 10 days (then slaughtered) in the case of cow 2), for overall information please see the article

AFLATOXIN M,

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., 3 days, (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc. range: ≤0.79* and ≤1.49** ng/ml, country: USA⁹³, these highest values measured at the *4th day in the case of cow 1 and at the **1st day in the case of cow 2 (always lower values measured up to 4 days (then slaughtered) in the case of cow 1 and always lower values measured up to 10 days (then slaughtered) in the case of cow 2), for overall information please see the article

HT-2 Toxin

incidence: 1/1*, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc.: pos**, country: USA¹⁸⁰, *whole blood, **6 h after administration of 2nd dosing

3'-Hydroxy-HT-2 Toxin

incidence: 1/1*, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc.: pos**, country: USA¹⁸⁰, *whole blood, **6 h after administration of 2nd dosing

T-2 Toxin

incidence: 1/1*, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc. range: ≤7.7 ppb**, country: USA¹80, *whole blood, **6 h after administration of 1st dosing (also at other hour intervals up to 48 h measured, lowest conc.: 2.2 ppb after 24 h of 1st dosing)

T-2 Tetraol

incidence: 1/1*, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc. range: ≤1.0 ppb**, country: USA¹⁸⁰, *whole blood, **6 h after administration of 2nd dosing (also at other hour intervals up to 48 h measured, lowest conc.: 0.2 ppb after 24 h of 1st dosing)

DEEPOXY-T-2-TETRAOL

incidence: 1/1*, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc. range: ≤1.3 ppb**, country: USA¹⁸⁰, *whole blood, **24 h after administration of 1st dosing (also at other hour intervals up to 48 h measured, lowest conc.: 0.6 ppb after 6 h of 1st dosing)

Cow brain may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow,

after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.70 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB,-administration)

AFLATOXIN M₁ incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.17 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB₁-administration)

Cow fat may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 2/2, sa. const.: lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁) addition, o., for 10 days; for detailed information please see the article), conc. range: 2.6–3.2 ng AFB₁ eq/g* **, Ø conc.: 2.9 ng AFB₁ eq/g*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of contaminated peanut meal

incidence: 2/2, sa. const.: lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁; but decontaminated afterwards), o., for 10 days; for detailed information please see the article), conc.: nd*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of decontaminated peanut meal

Cow feces may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 1/1, sa. const.: lactating cow, wt.: 600 kg, contamination: artificial (dose: 300 mg AFs: 44% AFB₁, 2% AFB₂,

(dose: 300 mg AFs: 44% AFB₁, 2% AFB₂; 44% AFG₁?, o., once), conc.: 3,930 μg* (total amount found), country: UK⁴⁰, *collected over a period of 9 days

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: ≤2,719.60* and ≤3,597.40 ng/g**, country: USA93, these highest values measured at the 3rd day in the case of cow 1** and cow 2* (always lower values measured up to 4 days (then slaughtered) in the case of cow 1 and always lower values measured up to 10 days (then slaughtered) in the case of cow 2), for overall information please see the article

Aflatoxin G_1

incidence: 1/1, sa. const.: lactating cow, wt.: 600 kg, contamination: artificial (dose: 300 mg AFs: 44% AFB₁, 2% AFB₂, 44% AFG₁?, o., once), conc.: 630 μg* (total amount found), country: UK⁴⁰, *collected over a period of 9 days

AFLATOXIN M,

incidence: 1/1, sa. const.: lactating cow, wt.: 600 kg, contamination: artificial (dose: 300 mg AFs: 44% AFB₁, 2% AFB₂, 44% AFG₁ ?, o., once), conc.: 2,960 µg* (total amount found), country: UK⁴⁰, *collected over a period of 9 days

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.:

≤158.20* and ≤200.30** ng/g, country: USA⁹³, these highest values measured at the *3rd day in the case of cow 1 and at the **4th day in the case of cow 2 (always lower values measured up to 4 days (then slaughtered) in the case of cow 1 and always lower values measured up to 10 days (then slaughtered) in the case of cow 2), for overall information please see the article

DEOXYNIVALENOL

incidence: 3/3, sa. const.: 2 Holstein dairy cows, 1 Ayrshire dairy cow, wt: ≈450 kg, contamination: artificial (dose: 66 mg DON/kg, o., for 5 days; for detailed information please see the article), conc. range: ≤660 ng/g* (37.4 mg in total, mean value), country: USA²⁷⁸, *after 2 days of application (also at other day intervals up to 12 days measured, lowest conc.: nd at the beginning and the end of the experiment; for detailed information please see the article)

DEEPOXYDEOXYNIVALENOL

incidence: 3/3, sa. const.: 2 Holstein dairy cows, 1 Ayrshire dairy cow, wt.: ≈450 kg, contamination: artificial (dose: 66 mg DON/kg, o., for 5 days; for detailed information please see the article), conc. range: ≤13,000 ng/g* ** (679.8 mg** in total, mean value), country: USA²⁷⁸, *after 6 days of application (also at other day intervals up to 12 days measured, lowest conc.: nd at the beginning (1–4 days) of the experiment; for detailed information please see the article), **unconjugated DEDON

Cow gallbladder may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg

AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 1.98 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB,-administration)

AFLATOXIN M₁ incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 8.52 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB₁-administration)

Cow heart may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.43 ng/g* **, country: USA93, *left ventricle, **after 4 days (thereof 3 days with AFB, -administration) incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.50 ng/g* **, country: USA⁹³, *right ventricle, **after 4 days (thereof 3 days with AFB,administration)

incidence: 6/6*, sa. const.: nonlactating Holstein dairy cows, contamination: no AF (for detailed information please see the article), conc.: nd, country: USA¹⁵⁰, control

incidence: 6/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB₁ in cottonseed (**but ammoniated afterwards**), o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration incidence: 4/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB₁ in cottonseed, o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration

incidence: 2/2, sa. const.: lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁), o., for 10 days; for detailed information please see the article), conc. range: 4.5–5.1 ng AFB₁ eq/g*, Ø conc.: 4.8 ng AFB₁ eq/g*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of contaminated peanut meal

incidence: 2/2, sa. const.: lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁; but decontaminated afterwards), o., for 10 days; for detailed information please see the article), conc.: nd*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of decontaminated peanut meal

AFLATOXIN B_2 incidence: $6/6^*$, sa. const.: nonlactating Holstein dairy cows, contamination: no AF (for detailed information please see the article), conc.: nd, country: USA 150 , control

incidence: 6/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB₁ in cottonseed (**but ammoniated afterwards**), o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration incidence: 4/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB₁ in cottonseed, o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration

AFLATOXIN M,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days), conc.: 1.73 ng/g*, country: USA93, *left ventricle, **after 4 days (thereof 3 days with AFB, -administration) incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.78 ng/g*, country: USA93, *right ventricle, **after 4 days (thereof 3 days with AFB, -administration)

incidence: 6/6*, sa. const.: nonlactating Holstein dairy cows, contamination: no AF (for detailed information please see the article), conc.: nd, country: USA¹⁵⁰, control

incidence: 6/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB₁ in cottonseed (**but ammoniated afterwards**), o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration

incidence: 4/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB₁ in cottonseed, o., over 14 days; for detailed information please see the article), conc. range: <0.05 µg/kg*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration

T-2 Toxin

incidence: 1/1, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2×200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc.: 0.8 ppb*, country: USA¹⁸⁰, *no statement when found

Cow intestine may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc. range: 0.025*–1.34** ng/g***, country: USA⁹³, after 10* or 4** days, ***in intestine, small (caudal part)

AFLATOXIN M,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 2.34* ng/g**, country: USA⁹³, *after 4 days (thereof 3 days with AFB₁-administration), **in intestine, small (caudal part)

Cow kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 2.6 ng/g* **, country: USA⁹², *in cow that died, **after 60 h

AFLATOXIN B,

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 3.3 ng/g* **, country: USA⁹², *in cow that died, **after 60 h

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc. range: 0.02*–1.32** ng/g, country: USA⁹³, after 10* or 4** days

incidence: 6/6*, sa. const.: nonlactating Holstein dairy cows, contamination: no AF (for detailed information please see the article), conc.: nd, country: USA¹⁵⁰, *control

incidence: 6/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB, in cottonseed (but ammoniated afterwards), o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA150, *after 14 days of AFB,-administration incidence: 2/5, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB, in cottonseed, o., over 14 days; for detailed information please see the article), conc. range: tr $- < 0.005 \mu g/kg^*$, country: USA150, *after 14 days of AFB,-administration

incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose:

10 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 50 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: nd* **, country: USA319, *after 15 days (thereof 14 days with AFB, -administration), **but significant radioactivity occurred incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 1,250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: 0.22 µg/kg*, country: USA319, *after 15 days (thereof 14 days with AFB,-administration)

Française Frisonne Pie Noire cows, age: 3-4 years, wt.: 500-550 kg, contamination: artificial (dose: peanut meal (3.5 mg AFB,/kg) spiked with labeled AFB,), o., for 10 days; for detailed information please see the article), conc. range: 36.8-38.9 ng AFB, eq/g*, \emptyset conc.: 37.85 ng AFB, eq/g*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of contaminated peanut meal incidence: 2/2, sa. const.: lactating Française Frisonne Pie Noire cows, age: 3-4 years, wt.t: 500-550 kg, contamination: artificial (dose: peanut meal (3.5 mg AFB,/kg) spiked with labeled AFB,; but decontaminated afterwards), o., for 10 days; for detailed information please see the article), conc. range: 2.7-3.0 ng AFB, eq/g*, Ø conc.: 2.85 ng AFB, eq/g*, country: The Netherlands/UK/France397, *after a 10-day

incidence: 2/2, sa. const.: lactating

period of consumption of decontaminated peanut meal

AFLATOXIN B, incidence: 6/6*, sa. const.: nonlactating Holstein dairy cows, contamination: no AF (for detailed information please see the article), conc.: nd, country: USA150, incidence: 6/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB, in cottonseed (but ammoniated afterwards), o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA150, *after 14 days of AFB,-administration incidence: 4/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB, in cottonseed, o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA150, *after 14 days of AFB,-administration

AFLATOXIN M₁ incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 20 ng/g* **, country: USA⁹², *in

cow that died, **after 60 h

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc. range: 0.11*–56.64** ng/g, country: USA⁹³, after 10* or 4** days

incidence: 6/6*, sa. const.: nonlactating Holstein dairy cows, contamination: no AF (for detailed information please see the article), conc.: nd, country: USA¹⁵⁰, *control incidence: 6/6, sa. const.: nonlactating Holstein dairy cows, contamination:

artificial (dose: total of 148.54 mg AFB₁ in cottonseed (**but ammoniated afterwards**), o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA¹⁵⁰, after 14 days of AFB₁-administration incidence: 5/5, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: total of 148.54 mg AFB₁ in cottonseed, o., over 14 days; for detailed information please see the article), conc. range: \leq 0.3 μ g/kg*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration

incidence: 2/2, sa. const.: Jersey milking cows, age: adult, contamination: artificial (dose: $385-1,925 \mu g ZEA/kg + (20 \mu g$ AFB,/kg), o., for 7 weeks; for detailed information please see the article), conc. range: tr-0.7 μg/kg*, country: UK²⁶⁷, *after 7 weeks of (AFB,-) and ZEA-administration; AFB, accidentally in the diet incidence: 2/2, sa. const.: Jersey milking cows, age: adult, contamination: artificial (dose: 317–1,125 μ g OTA/kg + (20 μ g AFB,/kg), o., for 11 weeks; for detailed information please see the article), conc. range: 0.2 μg/kg*, country: UK²⁶⁷, *after 11 weeks of (AFB,-) and OTA-administration; AFB, accidentally in the diet

incidence: 1/1, sa. const.: lactating dairy cows, contamination: artificial (dose: 10 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA³¹⁹ incidence: 1/1, sa. const.: lactating dairy cows, contamination: artificial (dose: 50 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA³¹⁹ incidence: 1/1, sa. const.: lactating dairy cows, contamination: artificial (dose: 250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for

detailed information please see the article), conc.: nd* ***, country: USA³¹⁹, *after15 days (thereof 14 days with AFB₁-administration), **but significant radioactivity occurred incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 1,250 ppb AFB₁ (labeled and unlabeled)), o., twice daily over a 14-day period; for detailed information please see the article), conc.: 0.72 μg/kg*, country: USA³¹⁹, *after 15 days (thereof 14 days with AFB,-administration)

HT-2 Toxin

incidence: 1/1, sa. const.: Holstein cow, weight: 365 kg, contamination: artificial (dose: 2×200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc.: 2.2 ppb*, country: USA¹⁸⁰, *no statement when found

OCHRATOXIN A

incidence: 1/2, sa. const.: Jersey milking cows, age: adult, contamination: artificial (dose: 317–1,125 μ g OTA/kg + (20 μ g AFB₁/kg), o., for 11 weeks; for detailed information please see the article), conc.: pr*, country: UK²⁶⁷, *after 11 weeks of (AFB₁-) and OTA-administration; AFB₁ accidentally in the diet

Cow liver may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 0.88 ng/g* **, country: USA⁹², *in cow that died, **after 60 h

AFLATOXIN B,

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 5.1 ng/g* **, country: USA⁹², *in cow that died, **after 60 h

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc. range: 0.03*–7.12** ng/g, country: USA⁹³, after 10* or 4** days

incidence: 6/6*, sa. const.: nonlactating Holstein dairy cows, contamination: no AF (for detailed information please see the article), conc.: nd, country: USA¹⁵⁰, *control

incidence: 6/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: total of 148.54 mg AFB₁ in cottonseed (**but ammoniated afterwards**), o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration incidence: 3/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: total of 148.54 mg AFB₁ in cottonseed, o., over 14 days; for detailed information please see the article), conc. range: 0.1–>0.1 μg/kg, country: USA¹⁵⁰, *after 14 days of AFB₁-administration

incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 10 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 50 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: nd* **, country: USA319, *after 15 days (thereof 14 days

with AFB₁-administration), **but significant radioactivity occurred incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 1,250 ppb AFB₁ (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: 0.09 μg/kg*, country: USA³¹⁹, *after 15 days (thereof 14 days with AFB₁-administration)

incidence: 2/2, sa. const.: lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁), o., for 10 days; for detailed information please see the article), conc. range: 252.2–278.6 ng AFB₁ eq/g*, Ø conc.: 265.4 ng AFB₁ eq/g*, country: The Netherlands/ UK/France³⁹⁷, *after a 10-day period of consumption of **contaminated peanut meal**

incidence: 2/2, sa. const.: lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁; but decontaminated afterwards), o., for 10 days; for detailed information please see the article), conc. range: 0.2–11.6 ng AFB₁ eq/g*, Ø conc.: 5.9 ng AFB₁ eq/g*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of decontaminated peanut meal

AFLATOXIN B,

incidence: 6/6*, sa. const.: nonlactating Holstein dairy cows, contamination: no AF (for detailed information please see the article), conc.: nd, country: USA¹⁵⁰, *control

incidence: 6/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB $_1$ in cottonseed (but ammoniated afterwards), o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA $_{150}$, *after 14 days of AFB $_1$ -administration

incidence: 3/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: 148.54 mg AFB₁ in cottonseed, o., over 14 days; for detailed information please see the article), conc. range: 0.025–>0.025 µg/kg*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration

AFLATOXIN M₁ incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 4.3 ng/g* **, country: USA⁹², *in cow that died, **after 60 h

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc. range: 0.023*–6.09** ng/g, country: USA⁹³, after 10* or 4** days

incidence: 6/6*, sa. const.: nonlactating Holstein dairy cows, contamination: no AF (for detailed information please see the article), conc.: nd, country: USA¹⁵⁰, *control incidence: 6/6, sa. const.: nonlactating

Holstein dairy cows, contamination: artificial (dose: total of 148.54 mg AFB₁ in cottonseed (**but ammoniated afterwards**), o., over 14 days; for detailed information please see the article), conc.: nd*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration

incidence: 5/6, sa. const.: nonlactating Holstein dairy cows, contamination: artificial (dose: total of 148.54 mg AFB₁ in cottonseed, o., over 14 days; for detailed information please see the article), conc. range: tr-0.15 µg/kg*, country: USA¹⁵⁰, *after 14 days of AFB₁-administration

incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 10 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 50 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cow, contamination; artificial (dose: 250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: nd* **, country: USA319, *after 15 days (thereof 14 days with AFB,-administration), **but significant radioactivity occurred incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 1,250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: 0.16 µg/kg*, country: USA³¹⁹, *after 15 days (thereof 14 days with AFB₁-administration)

Cow lung may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.60 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB₁-administration)

incidence: 2/2, sa. const.: lactating Française Frisonne Pie Noire cows, age:

3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal (3.5 mg AFB₁/kg) spiked with labeled AFB₁), o., for 10 days; for detailed information please see the article), conc. range: 10.7–13.2 ng AFB₁ eq/g*, Ø conc.: 11.95 ng AFB₁ eq/g*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of

contaminated peanut meal

incidence: 2/2, sa. const.: lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal (3.5 mg AFB₁/kg) spiked with labeled AFB₁; but decontaminated afterwards), o., for 10 days; for detailed information please see the article), conc.: nd*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of

decontaminated peanut meal

AFLATOXIN M₁ incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.90 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB,-

HT-2 Toxin

administration)

incidence: 1/1, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2×200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc.: 1.2 ppb*, country: USA¹⁸⁰, *no statement when found

Cow lymph may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was

fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.30 ng/g* **, country: USA⁹³, *in supramammary lymph nodes, **after 4 days (thereof 3 days with AFB₁-administration)

AFLATOXIN M,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.70 ng/g* **, country: USA⁹³, *in supramammary lymph nodes, **after 4 days (thereof 3 days with AFB₁-administration)

Cow mammary gland may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.60 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB₁-administration)

Aflatoxin $M_{_1}$

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.:

24.5 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB₁-administration)

incidence: 1/1, sa. const.: lactating dairy cows, contamination: artificial (dose: 10 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cows, contamination: artificial (dose: 50 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cows, contamination: artificial (dose: 250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: nd* **, country: USA319, *after 15 days (thereof 14 days with AFB,-administration), **but significant radioactivity occurred incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 1,250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: 0.27 μg/kg*, country: USA³¹⁹, *after 15 days (thereof 14 days with AFB,-administration)

Cow milk, raw may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 12/12 milk sa., sa. const.: milk from Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: ≈≤1.1 ng/g* **, country: USA⁹², *in milk of cow that **died**, **after 60 h (also at other hour intervals up to 60 h measured, lowest conc.: ≈<0.05 ng/g after 24 h) (mycotoxin values very approximately) incidence: 16/17 milk sa., sa. const.: milk from Holstein cow (midlactation period),

age: 5 years, wt.: 600 kg, contamination:

artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: $\approx \le 0.2$ ng/g* **, country: USA⁹², *in milk of cow that **survived**, **after 60 h (also at other hour intervals up to 120 h measured, lowest conc.: ≈ 0.01 ng/g after 120 h) (mycotoxin values very approximately)

AFLATOXIN B₁

incidence: 12/12 milk sa., sa. const.: milk from Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB,/kg b. wt., o., once), conc. range: ≈≤10 ng/g* **, country: USA92, *in milk of cow that died, **after 60 h (also at other hour intervals up to 60 h measured, lowest conc.: ≈1 ng/g after 24 h) (mycotoxin values very approximately) incidence: 26/27 milk sa., sa. const.: milk from Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB,/kg b. wt., o., once), conc. range: ≈≤8 ng/g* **, country: USA92, *in milk of cow that survived, **after ≈70 h (also at other hour intervals up to 240 h measured, lowest conc.:

≈0.01 ng/g after 240 h) (mycotoxin values

very approximately)

incidence: 16*/26*, sa. const.: milk from Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc. range: ≤ 1.00 and ≤ 1.18 ng/ ml**, country: USA93, *milk sa. from both cows, **these highest values measured at the 3rd day in the case of cow 1 and cow 2 (always lower values measured up to 4 days (then slaughtered) in the case of cow 1 and always lower values measured up to 10 days (then slaughtered) in the case of cow 2), for overall information please see the article

incidence: 1/1 animal, sa. const.: milk from cows at peak lactation,

contamination: artificial (dose: 80 mg AFB₁, o., daily for 3 weeks; for detailed information please see the article), conc.: 290 ppb* **, country: USA¹⁶⁹, *in dried milk, **1 day after withdrawal (also measured 2, 3 and 4 days after withdrawal, lowest conc.: 175 ppb after 4 days)

incidence: 20/20 milk sa., sa. const.: milk from lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁), o., for 10 days; for detailed information please see the article), conc. range: 4.6–6.0 µg AFB₁ eq/l*, country: The Netherlands/UK/France³⁹⁷, *fed contaminated peanut meal

incidence: 20/20 milk sa., sa. const.: milk from lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁; but decontaminated afterwards), o., for 10 days; for detailed information please see the article), conc. range: ≤0.8 µg AFB₁ eq/l*, country: The Netherlands/UK/France³⁹⁷, *fed

decontaminated peanut meal

incidence: ?/?, sa. const.: milk from

Aflatoxin M,

Friesian and Friesian X dairy cows, contamination: artificial (dose: between 155 and 244 μg AFB₁, o., daily; for detailed information please see the article), conc. range: 0.15–0.26 $\mu g/l^*$, Ø conc.: 0.21 $\mu g/l^*$, country: UK³⁹, *in bulk milk collected for 7 days incidence: ?/?, sa. const.: milk from Friesian and Friesian X dairy cows, contamination: artificial (dose: between 155 and 244 μg AFB₁, o., daily; for detailed information please see the article), conc. range: <0.01–0.33 $\mu g/l$, country: UK³⁹

incidence: ?/18? milk sa., sa. const.: milk from lactating cow, wt.: 600 kg, contamination: artificial (dose: 300 mg AFs: 44% AFB $_1$, 2% AFB $_2$, 44% AFG $_1$?, o., once), conc.: 492 µg* (total amount found), country: UK 40 , *collected over a period of 9 days

incidence: ?/?, sa. const.: milk from latelactation Holstein dairy cows, Ø wt.: 544 kg, contamination: artificial (dose: 100 μg AF/kg feed and 1.0% HSCAS in period 2 or 200 μg AF/kg feed and 0.5% HSCAS in period 2*, conc. range: 0.51–1.99 μg/l** (mean values), country: USA⁷⁷, *period = 7 days, 3 periods in all (1st and 3rd period only AF given) **values of all trials (for detailed information please see the article)

incidence: ?/?, sa. const.: milk from Holstein cows (midlactation), contamination: artificial (dose: 13 mg AFB, (pure/impure), via rumen orifice, daily for 7 days; for detailed information please see the article) conc. range: ≤10.58 ppb* ** (mean value), country: USA83, *6 animals received pure and 3 animals impure AFB, (13 mg), **after 2-7 days of treatment incidence: ?/?, sa. const.: milk from a Holstein cow (midlactation), contamination: artificial (dose: 25 mg AFB, (pure), via rumen orifice, daily for 7 days; for detailed information please see the article) conc.: 1.35 ppb* (mean value), country: USA83, *after 2-7 days of treatment

incidence: ?/?, sa. const.: milk from Danish black and white breed, contamination: artificial (dose: 57 µg AFB₁ in feed/day, for 8 weeks?; for detailed information please see the article), conc. range: 27–74 ng/kg*, country: Denmark⁸⁵, *during 8 weeks a milk sa. from each cow analysed once a week incidence: ?/?, sa. const.: milk from Danish black and white breed, contamination:

artificial (dose: 142 µg AFB, in feed/day, for 8 weeks?; for detailed information please see the article), conc. range: 38-128 ng/kg*, country: Denmark85, *during 8 weeks a milk sa. from each cow analysed once a week incidence: ?/?, sa. const.: milk from Danish black and white breed, contamination: artificial (dose: 226 µg AFB, in feed/day, for 8 weeks?; for detailed information please see the article), conc. range: 60-271 ng/kg*, country: Denmark85, *during 8 weeks a milk sa. from each cow analysed once a week incidence: ?/?, sa. const.: milk from Danish black and white breed, contamination: artificial (dose: 311 µg AFB, in feed/day, for 8 weeks?; for detailed information please see the article), conc. range: 96-138 ng/kg*, country: Denmark85, *during 8 weeks a milk sa. from each cow analysed once a week

incidence: ?/8 animals, sa. const.: milk from Holstein-Friesian lactating cows, contamination: artificial (dose: 120 µg AFB,/kg in ammoniated peanut meal, o., daily for 9 days (1,080 µg in total); for detailed information please see the article), conc. range: ≤0.070 µg/l* **, country: France86, *total amount found: 52 μg AFM,, **at day 8 incidence: ?/?, sa. const.: milk from Holstein-Friesian lactating cows, contamination: artificial (dose: ≈8-9 µg AFB,/kg in untreated peanut meal, o., for 16 months; for detailed information please see the article), conc. range: ≤0.510 µg/l*, country: France⁸⁶, *total amount found: 1,247 µg AFM,

incidence: 12/12 milk sa., sa. const.: milk from Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: $\approx \le 200$ ng/g* **, country: USA⁹², *in milk of cow that died, **after ≈ 10 h (also at other hour intervals up to 60 h measured, lowest conc.: $\approx < 40$ ng/g after ≈ 35 h) (mycotoxin values very approximately)

incidence: 27/27 milk sa., sa. const.: milk from Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: $\approx \le 70$ ng/g* **, country: USA⁹², *in milk of cow that survived, **after ≈ 43 h (also at other hour intervals up to 240 h measured, lowest conc.: $\approx < 0.05$ ng/g after 240 h) (mycotoxin values very approximately)

incidence: 24*/26*, sa. const.: milk from Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc. range: ≤23.40** and ≤32.80*** ng/ml, country: USA⁹³, *milk sa. from both cows, these highest values measured at the **2nd day in the case of cow 2 and at the ***3rd day in the case of cow 1 (always lower values measured up to 4 days (then slaughtered) in the case of cow 1 and always lower values measured up to 10 days (then slaughtered) in the case of cow 2), for overall information please see the article

incidence: ?/?, sa. const.: milk from Holstein dairy cattles, contamination: artificial (dose: 650 μ g AF/kg in non-ammoniated cottonseeds fed; for detailed information please see the article), conc. range: \leq 1.8 μ g/l (mean value), country: USA¹⁰⁷

incidence: ?/?, sa. const.: milk from Holstein dairy cattles, contamination: artificial (dose: 15–80 µg AF/kg in ammoniated cottonseeds fed; for detailed information please see the article), conc. range: ≤0.18 µg/l (mean value), country: USA¹⁰⁷

incidence: ?/?, sa. const.: milk from lactating cows, contamination: artificial (dose: 10 ppb AFB₁ (labeled and unlabeled) in concentrate, o., twice daily

for 14 days; for detailed information please see the article), conc.: nd*, country: USA137, *at day 4 and 8 of feeding AFB, incidence: ?/?, sa. const.: milk from lactating cows, contamination: artificial (dose: 50 ppb AFB, (labeled and unlabeled) in concentrate, o., twice daily for 14 days; for detailed information please see the article), conc. range: 0.1 μg/l* (mean value), country: USA137, *at day 4 and 8 of feeding AFB, incidence: ?/?, sa. const.: milk from lactating cows, contamination: artificial (dose: 250 ppb AFB, (labeled and unlabeled) in concentrate, o., twice daily for 14 days; for detailed information please see the article), conc. range: 0.23*and 0.26** μg/l (mean values), country: USA137, at day 8* or 4** of feeding AFB, incidence: ?/?, sa. const.: milk from lactating cows, contamination: artificial (dose: 1,250 ppb AFB, (labeled and unlabeled) in concentrate, o., twice daily for 14 days; for detailed information please see the article), conc. range: 0.82* and 0.88** µg/l (mean values), country: USA¹³⁷, at day 4* or 8** of feeding AFB,

incidence: ?/20, sa. const.: milk from a Holstein cow (mid-lactation), contamination: artificial (dose: 26 ppm AFB₁, into fistulated rumen, twice daily for 7 days), conc.: \approx 10 ppb*, country: USA¹⁴⁷, *on day 3

incidence: 5/5 animals, sa. const.: milk from Holstein dairy cows, contamination: artificial (dose: 5.82 mg AFB₁/day in cottonseed (**but ammoniated afterwards**), o., for 9 days; for detailed information please see the article), conc.: nd, country: USA¹⁵⁰ (also at other day intervals over 9 days measured) incidence: ?/4 animals, sa. const.: milk from Holstein dairy cows, contamination: artificial (dose: 5.82 mg AFB₁/day in cottonseed, o., for 9 days; for detailed information please

see the article), conc.: 5.15 µg/l (mean value), country: USA¹⁵⁰ (also at other day intervals over 9 days measured, lowest conc.: 2.5 µg/l after 2 days)

incidence: ?/?*, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: no AFB,; for detailed information please see the article), conc.: ≈0.2 µg/l (mean value), country: USA157, *control incidence: ?/4 animals, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: 20 µg AFB,/kg complete feed, o., for 192 h; for detailed information please see the article), conc.: 0.33 µg/l* ** (mean value), country: USA157, *after 120 h (also at other hour intervals up to 264 h measured), **cows with low milk production level incidence: ?/4 animals, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: 20 µg AFB,/kg complete feed, o., for 192 h; for detailed information please see the article), conc.: 0.36 µg/l* ** (mean value), country: USA157, *after 120 h (also at other hour intervals up to 264 h measured), **cows with high milk production level incidence: ?/4 animals, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: 48 µg AFB,/kg complete feed, o., for 192 h; for detailed information please see the article), conc.: 0.51 µg/l* ** (mean value), country: USA157, *after 132 h (also at other hour intervals up to 264 h measured), **cows with low milk production level incidence: ?/4 animals, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: 48 µg AFB,/kg complete feed, o., for 192 h; for detailed information please see the article), conc.: 0.74 µg/l* ** (mean value), country: USA157, *after 132 h (also at other hour intervals up to 264 h

measured), **cows with high milk production level incidence: ?/4 animals, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: 104 µg AFB,/kg complete feed, o., for 192 h; for detailed information please see the article), conc.: 1.72 µg/l* ** (mean value), country: USA157, *after 120 h (also at other hour intervals up to 264 h measured), **cows with low milk production level incidence: ?/4 animals, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: 104 µg AFB,/kg complete feed, o., for 192 h; for detailed information please see the article), conc.: 1.50 μg/l* ** (mean value), country: USA157, *after 120 h (also at other hour intervals up to 264 h measured), **cows with high milk production level incidence: ?/3 animals, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: 44 µg AFB,/kg in contaminated cottonseed meal, o., for 192 h?; for detailed information please see the article), conc.: 0.59 μg/l* (mean value), country: USA157, *cows with low milk production level incidence: ?/4 animals, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: 44 µg AFB,/kg in contaminated cottonseed meal, o., for 192 h?; for detailed information please see the article), conc.: 0.62 μg/l* (mean value), country: USA¹⁵⁷, *cows with high milk production level incidence: ?/4 animals, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: 49 µg AFB,/kg in contaminated corn, o., for 192 h?; for detailed information please see the article), conc.: 0.55 µg/l* (mean value), country: USA157, *cows with low milk production level incidence: ?/4 animals, sa. const.: milk from lactating Holstein cows, contamination: artificial (dose: 49 µg

AFB₁/kg in contaminated corn, o., for 192 h?; for detailed information please see the article), conc.: 0.51 μ g/l* (mean value), country: USA¹⁵⁷, *cows with high milk production level

incidence: ?/?, sa. const.: milk from cows, contamination: artificial (dose: 5.5 ppm AFB, in groundnut meal (in various portions fed, here 13.5% portion, AFB,intake 5.0 mg/day) + hay + concentrate mix, o., for ? days; for detailed information please see the article), conc.: 3.0 µg/l* ** *** (mean value), country: UK¹⁷¹, *in liquid milk, **within period of AFB,-administration, ***lower AFB₁-intake values (mg/day) resulted in lower residue values incidence: ?/?, sa. const.: milk from cows, contamination: artificial (dose: 18.8 ppm AFB, in groundnut meal (in various portions fed, here 20% portion, AFB,-intake 24.5 mg/ day) + hay + concentrate mix, o., for ? days; for detailed information please see the article), conc.: 13.3 μ g/l* ** *** (mean value), country: UK171, *in liquid milk, **within period of AFB,-administration, ***lower AFB₁-intake values (mg/day) resulted in lower residue values incidence: ?/?, sa. const.: milk from cows, contamination: artificial (dose: 5.5 ppm AFB, in groundnut meal (in various portions fed, here 7.5% portion, AFB, -intake 0.90 mg/day) + grass + concentrate mix, o., for? days; for detailed information please see the article), conc.: 0.33 μg/l* ** *** (mean value), country: UK171, *in liquid milk, **within period of AFB,-administration, ***lower AFB₁-intake values (mg/day) resulted in lower residue values

incidence: 12/12 animals, sa. const.: milk from cows in early lactation (2–4 weeks), contamination: artificial (dose: \approx 39 µg AFB₁/day, o., for 14 days; for detailed information please see the article), conc. range: \leq 0.07 µg/kg* (\leq 3.0 µg/day*), country: The Netherlands²¹¹, *within

period of AFB₁-administration, early lactation

incidence: 8/8 animals, sa. const.: milk from cows in late lactation (34–36 weeks), contamination: artificial (dose: \approx 34 µg AFB₁/day, o., for 14 days; for detailed information please see the article), conc. range: \leq 0.04 µg/kg* (\leq 1.0 µg/day*), country: The Netherlands²¹¹, *within period of AFB₁-administration, late lactation

incidence: 8/8 animals, sa. const.: milk from individual low milk-yielding cows, contamination: artificial (dose: ≈35 µg AFB,/day, o., for 14 days; for detailed information please see the article), conc. range: $\leq 0.08 \,\mu\text{g/kg*}$ ($\leq 1.7 \,\mu\text{g/day*}$), country: The Netherlands211, *within period of AFB, -administration incidence: 8/8 animals, sa. const.: milk from individual low milk-vielding cows, contamination: artificial (dose: ≈56 µg AFB,/day, o., for 14 days; for detailed information please see the article), conc. range: \leq 0.16 µg/kg* (\leq 2.4 µg/day*), country: The Netherlands211, *within period of AFB,-administration incidence: 8/8 animals, sa. const.: milk from individual high milk-yielding cows, contamination: artificial (dose: ≈35 µg AFB,/day, o., for 14 days; for detailed information please see the article), conc. range: $\leq 0.04 \, \mu g/kg^* \, (\leq 1.9 \, \mu g/day^*)$, country: The Netherlands211, *within period of AFB,-administration incidence: 8/8 animals, sa. const.: milk from individual high milk-yielding cows, contamination: artificial (dose: ≈56 µg AFB,/day, o., for 14 days; for detailed information please see the article), conc. range: $\leq 0.12 \,\mu\text{g/kg}^*$ ($\leq 3.8 \,\mu\text{g/day}^*$), country: The Netherlands211, *within period of AFB,-administration

incidence: ?/?, sa. const.: milk from multiparous late-lactation Friesian cows, age: 30–33 weeks, contamination: artificial (dose: **56.40 µg AFB**₁/day, o., for 7 days; for detailed information please see the article), conc.: 15.52 ng/l* (mean value),

country: Italy²³¹, *on days 3 to 7 of the 1st week

incidence: ?/?, sa. const.: milk from multiparous late-lactation Friesian cows, age: 30-33 weeks, contamination: artificial (dose: 56.40 µg AFB,/day + HSCAS (2%), o., for 7 days; for detailed information please see the article), conc.: 10.48 ng/l* (mean value), country: Italy²³¹, *on days 3 to 7 of the 2nd week incidence: ?/?, sa. const.: milk from multiparous late-lactation Friesian cows, age: 30-33 weeks, contamination: artificial (dose: 67.15 µg AFB,/day, o., for 7 days; for detailed information please see the article), conc.: 17.25 ng/l* (mean value), country: Italy²³¹, *on days 3 to 7 of the 3rd week incidence: ?/?, sa. const.: milk from multiparous late-lactation Friesian cows, age: 30-33 weeks, contamination: artificial (dose: 56.40 µg AFB,/day, o., for 7 days; for detailed information please see the article), conc.: 15.88 ng/l* (mean value), country: Italy²³¹, *on days 3 to 7 of the 1st week incidence: ?/?, sa. const.: milk from multiparous late-lactation Friesian cows, age: 30-33 weeks, contamination: artificial (dose: 56.40 µg AFB,/day + CAC1 (2%), o., for 7 days; for detailed information please see the article), conc.: 8.68 ng/l* (mean value), country: Italy231, *on days 3 to 7 of the 2nd week incidence: ?/?, sa. const.: milk from multiparous late-lactation Friesian cows, age: 30-33 weeks, contamination: artificial (dose: 67.15 µg AFB,/day, o., for 7 days; for detailed information please see the article), conc.: 17.83 ng/l* (mean value), country: Italy²³¹, *on days 3 to 7 of the 3rd week

incidence: ?/?, sa. const.: milk from multiparous late-lactation Friesian cows, age: 30–33 weeks, contamination: artificial (dose: 56.40 µg AFB₁/day, o., for 7 days; for detailed information please see the article), conc.: 15.83 ng/l* (mean value), country: Italy²³¹, *on days 3 to 7 of the 1st week incidence: ?/?, sa. const.: milk from multiparous late-lactation Friesian cows,

age: 30–33 weeks, contamination: artificial (dose: 56.40 μg AFB₁/day + CAC2 (2%), o., for 7 days; for detailed information please see the article), conc.: 12.35 ng/l* (mean value), country: Italy²³¹, *on days 3 to 7 of the 2nd week incidence: ?/?, sa. const.: milk from multiparous late-lactation Friesian cows, age: 30–33 weeks, contamination: artificial (dose: 67.15 μg AFB₁/day, o., for 7 days; for detailed information please see the article), conc.: 18.41 ng/l* (mean value), country: Italy²³¹, *on days 3 to 7 of the 3rd week

incidence: ?/?, sa. const.: milk from Jersey milking cows, age: adult, contamination: artificial (dose: $385-1,925~\mu g~ZEA/kg + (20~\mu g~AFB_1/kg)$, o., for 7 weeks; for detailed information please see the article), conc. range: tr-0.6 $\mu g/kg^*$, country: UK²⁶⁷, *after 7 weeks, *after 7 weeks of (AFB_1-) and ZEA-administration; AFB_1 accidentally in the diet

incidence: ?/?, sa. const.: milk from Jersey milking cows, age: adult, contamination: artificial (dose: 317–1,125 μ g OTA/ kg + (20 μ g AFB₁/kg), o., for 11 weeks; for detailed information please see the article), conc. range: 0.06 μ g/kg*, country: UK²⁶⁷, *after 11 weeks, *after 11 weeks of (AFB₁-) and OTA-administration; AFB₁ accidentally in the diet

incidence: ?/?, sa. const.: milk from lactating cows, contamination: no AFB, (for detailed information please see the article), conc.: ?, country: Germany279 incidence: ?/2? animals, sa. const.: milk from lactating cows, contamination: artificial (dose: 0.2 mg AFB,/day + 7.0 mg PCB/day, o., for 10 and 30 days, resp.?; for detailed information please see the article), conc. range: ≤2.17 nmol*, country: Germany²⁷⁹, *in anamnesis phase incidence: ?/2? animals, sa. const.: milk from lactating cows, contamination: artificial (dose: 0.2 mg AFB,/day + 7.0 mg PCB/day, o., for 10 and 30 days, resp.?; for detailed information please see the

article), conc. range: ≤12.64 nmol*, country: Germany²⁷⁹, *in **dose phase** (20th–44th day)

incidence: ?/?*, sa. const.: milk from crossbred lactating cows, contamination: no AFB₁ (for detailed information please see the article), conc.: 2.53 ppt**, country: India²⁸⁶, *control, **after 14 days of feeding incidence: ?/?, sa. const.: milk from

incidence: ?/?, sa. const.: milk from crossbred lactating cows, contamination: artificial (dose: 25 ppb AFB₁ in concentrate mixture "B", o., for 11 days, for detailed information please see the article), conc. range: ≤47.79 ppt* (total: 0.446 μg AFM₁/cow*), country: India²⁸⁶, *after 7 days incidence: ?/?, sa. const.: milk from crossbred lactating cows, contamination: artificial (dose: 50 ppb AFB₁ in concentrate mixture "C", o., for 6 days, for detailed information please see the article), conc. range: ≤68.14 ppt (total: 0.586 μg AFM₁/cow), country: India²⁸⁶, *after 6 days

incidence: ?/?, sa. const.: milk from crossbred lactating cows, contamination: artificial (dose: 75 ppb AFB₁ in concentrate mixture "D", o., for 13 days, for detailed information please see the article), conc. range: ≤127.44 ppt* (total: 0.814 μg AFM₁/cow)*, country: India²86, *after 13 days

incidence: ?/?, sa. const.: milk from crossbred lactating cows, contamination: artificial (dose: 100 ppb AFB $_1$ in concentrate mixture "E", o., for 11 days; for detailed information please see the article), conc. range: \leq 273.22 ppt* (total: 1,996 μ g AFM $_1$ /cow*), country: India²⁸⁶, *after 11 days

incidence: 20/20 milk sa., sa. const.: milk from lactating Francaise Frisonne Pie Noir cows, age: 3–4 years, wt.: 500-550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁), o., for 10 days; for detailed information please see the article), conc. range: $2.3-3.5 \mu g/l^*$, country: The

Netherlands/UK/France³⁹⁷, *fed contaminated peanut meal

incidence: 20/20 milk sa., sa. const.: milk from lactating Francaise Frisonne Pie Noir cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁; but decontaminated afterwards), o., for 10 days; for detailed information please see the article), conc. range: 0.1 µg/l*, country: The Netherlands/UK/France³⁹⁷, *fed decontaminated peanut meal

incidence: ?/8 animals, sa. const.: milk

from crossbreeds of Dutch Friesian cows and Holstein Friesians (early-mid lactation), contamination: artificial (dose: 4 μg AFB,/kg, o., for 5 days; for detailed information please see the article), conc.: 0.01 µg/kg* (mean value) (0.3 µg/day*, mean value), country: The Netherlands⁵⁶⁷, *after 6 and 7 days incidence: ?/8 animals, sa. const.: milk from crossbreeds of Dutch Friesian cows and Holstein Friesians (early-mid lactation), contamination: artificial (dose: 12 µg AFB,/kg, o., for 5 days; for detailed information please see the article), conc.: 0.08 μg/kg* (mean value) (2.08 μg/day*, mean value), country: The Netherlands567, *after 6 and 7 days incidence: ?/8 animals, sa. const.: milk

incidence: ?/8 animals, sa. const.: milk from crossbreeds of Dutch Friesian cows and Holstein Friesians (early-mid lactation), contamination: artificial (dose: 12 μg AFB₁/kg + 1% bentonite, o., for 5 days; for detailed information please see the article), conc.: 0.05 μg/kg* (mean value) (1.36 μg/day*, mean value), country: The Netherlands⁵⁶⁷, *after 6 and 7 days

incidence: ?/3 animals*, sa. const.: milk from from crossbreeds of Dutch Friesian cows and Holstein Friesians (early-mid lactation), contamination: artificial (dose: $2.8 \mu g \ AFB_1$ /kg compound feed, o., for 14 days; for detailed information please

see the article), conc.: 0.03 µg/kg** (mean value) (1.0 μg/day**, mean value), country: The Netherlands⁵⁶⁷, *control, **sa. taken on day 12 and 14 incidence: ?/3 animals, sa. const.: milk from from crossbreeds of Dutch Friesian cows and Holstein Friesians (early-mid lactation), contamination: artificial (dose: 2.8 µg AFB,/kg compound feed + 1% HSCAS, o., for 14 days; for detailed information please see the article), conc.: 0.03 μg/kg* (mean value) (1.0 μg/day*, mean value), country: The Netherlands⁵⁶⁷, *sa. taken on day 12 and 14 incidence: ?/3 animals, sa. const.: milk from from crossbreeds of Dutch Friesian cows and Holstein Friesians (early-mid lactation), contamination: artificial (dose: 2.1 µg AFB,/kg compound feed + 1% bentonite, o., for 14 days; for detailed information please see the article), conc.: 0.02 μg/kg* (mean value) (0.7 μg/day*, mean value), country: The Netherlands⁵⁶⁷, *sa. taken on day 12 and 14

incidence: 1/1 animals, sa. const.: milk from a cow, age: 5 years, wt.: 200 kg, contamination: artificial (dose: up to 4.468 mg* AFB₁/kg ration, o., at day 9* (5 different dose applicated over 9 days); for detailed information please see the article), conc.: ≤0.088 µg/ml**, country: Egypt⁵⁷⁵, **at the 9th day (also at other day intervals up to 15 days measured, lowest conc.: nd after 15 days)

AFLATOXIN M

incidence: ?/?, sa. const.: milk from cows at peak lactation, contamination: artificial (dose: 80 mg AFB₁, o., daily for 3 weeks; for detailed information please see the article), conc.: 1,500 ppb* ** ***, country: USA¹⁶⁹, *in dried milk, **1 week before withdrawal (up to 7 days after withdrawal measured, lowest conc.: 160 ppb after 4 days), ***lower AFB₁-amounts given in combination with longer application periods resulted in lower residue values

DEEPOXYDEOXYNIVALENOL

incidence: 20*/72*, sa. const.: 2 Holstein dairy cows, 1 Ayrshire dairy cow, wt.: ≈450 kg, contamination: artificial (dose: 66 mg DON/kg, o., for 5 days; for detailed information please see the article), conc. range: ≤26 ng/ml** (1.12 mg** in total, mean value), country: USA²⁷⁸, *milk sa. from all 3 cows, **after 5 days of application (also at other day intervals up to 12 days measured, lowest conc.: nd at the beginning and the end of the experiment; for detailed information please see the article)

FUMONISIN B,

incidence: 3/3 animals, sa. const.: milk from black-pied Holstein Friesian cows, contamination: artificial (dose: 30 mg FB₁/cow (≈50 µg FB₁/kg b. wt.), i.v., once; for detailed information please see the article), conc. range: 0.27*−1.16** µg/kg, country: Germany²7⁴, after 10* and **4 h of application (also at other hour intervals up to 58 h measured, lowest conc.: nd after 24 h for all 3 cows)

incidence: 1/1 animal, sa. const.: milk

from Holstein cross-breed cows, wt.: 480–580 kg, contamination: artificial (dose:

ZEARALENONE

544.5 mg ZEA/day, o., for 21 days), conc. range: ≤2.5 ng/ml*, country: Canada⁷⁹, *on day 2 (also at other day intervals up to 9 days measured, lowest conc.: ≈0.2 ng/ ml after 5 days) incidence: 1/1 animal, sa. const.: milk from Holstein cross-breed cows, wt.: 480-580 kg, contamination: artificial (dose: 1.8 g ZEA/day, o., for 1 day), conc. range: ≤4.0 ng/ml*, country: Canada⁷⁹, *on day 1 (also at other day intervals up to 9 days measured, lowest conc.: nd after 3-9 days) incidence: 1/1 animal, sa. const.: milk from Holstein cross-breed cows, wt.: 480-580 kg, contamination: artificial (dose: 6 g ZEA/day, o., for 1 day), conc. range: ≤6.1 ng/ml*, country: Canada⁷⁹, *on day 2 (also at other day intervals up to 9 days measured, lowest conc.: nd after 5-9 days) incidence: 3/11 milk sa., sa. const.: milk from cow, contamination: artificial (dose: 5 g crystalline ZEA, o., once), conc. range: tr*, country: Hungary/USA¹²³, *at 96, 108 and 120 h (also at other hour intervals up to 120 h measured, lowest conc.: nd up to 84 h)

α-Zearalenol

incidence: 1/1 animal, sa. const.: milk from Holstein cross-breed cows, wt.: 480-580 kg, contamination: artificial (dose: 544.5 mg ZEA/day, o., for 21 days), conc. range: ≤3.0 ng/ml*, country: Canada⁷⁹, *on day 2 (also at other day intervals up to 9 days measured, lowest conc.: ≈0.45 ng/ml after 5 days) incidence: 1/1 animal, sa. const.: milk from Holstein cross-breed cows, wt.: 480-580 kg, contamination: artificial (dose: 1.8 g ZEA/day, o., for 1 day), conc. range: ≤1.5 ng/ml*, country: Canada⁷⁹, *on day 2 (also at other day intervals up to 9 days measured, lowest conc.: nd after 5-9 days) incidence: 1/1 animal, sa. const.: milk from Holstein cross-breed cows, wt.: 480-580 kg, contamination: artificial (dose: 6 g ZEA/day, o., for 1 day), conc. range: ≤4.0 ng/ml*, country: Canada⁷⁹, *on day 2 (also at other day intervals up to 9 days measured, lowest conc.: nd after 5 and 9 days)

B-ZEARALENOL

incidence: 1/1 animal, sa. const.: milk from Holstein cross-breed cows, wt.: 480–580 kg, contamination: artificial (dose: 544.5 mg ZEA/day, o., for 21 days), conc.: nd-tr, country: Canada⁷⁹ (also at other day intervals up to 9 days measured) incidence: 1/1 animal, sa. const.: milk from Holstein cross-breed cows, wt.: 480–580 kg, contamination: artificial (dose: 1.8 g ZEA/day, o., for 1 day), conc. range: ≤4.1 ng/ml*, country: Canada⁷⁹, *on day 1 (also at other day intervals up to 9 days measured, lowest conc.: nd after 3–9 days) incidence: 1/1 animal, sa. const.: milk from Holstein cross-breed cows, wt.:

480–580 kg, contamination: artificial (dose: 6 g ZEA/day, o., for 1 day), conc. range: ≤6.6 ng/ml*, country: Canada⁷⁹, *on day 3 (also at other day intervals up to 9 days measured, lowest conc.: nd after 4–9 days)

incidence: 2/11 milk sa. const.: milk from cow, contamination: artificial (dose: 5 g crystalline ZEA, o., once), conc.: tr*, country: Hungary/USA¹²³, *at 108 and 120 h (also at other hour intervals up to 120 h measured, lowest conc.: nd up to 96 h)

Cow muscle may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.56 ng/g* **, country: USA⁹³, *in *biceps* muscle, **after 4 days (thereof 3 days with AFB, -administration) incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.31 ng/g* **, country: USA⁹³, *in iliopsoas muscle, **after 4 days (thereof 3 days with AFB, -administration) incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article),

conc.: 0.53 ng/g* **, country: USA⁹³, *in *semitendinosus* muscle, **after 4 days (thereof 3 days with AFB,-administration)

incidence: 2/2, sa. const.: lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁), o., for 10 days; for detailed information please see the article), conc. range: 1.7–2.1 ng AFB₁ eq/g*, Ø conc.: 1.9 ng AFB₁ eq/g*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of

contaminated peanut meal

incidence: 2/2, sa. const.: lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁; but decontaminated afterwards), o., for 10 days; for detailed information please see the article), conc.: nd*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of decontaminated peanut meal

AFLATOXIN M,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 1.19 ng/g* **, country: USA93, *in biceps muscle, **after 4 days (thereof 3 days with AFB, -administration) incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 1.18 ng/g* **, country: USA93, *in iliopsoas muscle, **after 4 days (thereof 3 days with AFB, -administration)

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 1.03 ng/g* **, country: USA⁹³, *in *semitendinosus* muscle, **after 4 days (thereof 3 days with AFB₁-administration)

Cow plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB /kg b. wt., o., once), conc. range: ≈≤0.4 ng/g?* **, country: USA⁹², *in cow that died, **after 60 h (also at other hour intervals up to 60 h measured, lowest conc.: ≈<0.02 ng/g after 24 h) (mycotoxin values very approximately) incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB,/kg b. wt., o., once), conc. range: $\approx \le 0.2$ ng/g* **, country: USA⁹², *in cow that survived, **after ≈60 h (also at other hour intervals up to 120 h measured, lowest conc.: ≈0.01 ng/g after \approx 35, \approx 130, \approx 145 and \approx 155 h) (mycotoxin values very approximately)

AFLATOXIN B,

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: ≈≤3 ng/g* **, country: USA⁹², *in cow that **died**, **after ≈33 h (also at other hour intervals up to 60 h measured, lowest conc.: ≈<0.1 ng/g after ≈8 h) (mycotoxin values very approximately) incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial

(dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: $\approx \le 7$ ng/g* **, country: USA⁹², *in cow that **survived**, **after ≈ 60 h (also at other hour intervals up to 190 h measured, lowest conc.: $\approx < 0.05$ ng/g after ≈ 190 h) (mycotoxin values very approximately)

AFLATOXIN M₁

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: ≈≤10 ng/g* **, country: USA⁹², *in cow that died, **after ≈10 h (also at other hour intervals up to 60 h measured, lowest conc.: ≈<5 ng/g after 60 h) (mycotoxin values very approximately) incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial

incidence: 1/1, sa. const.: Hoistein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: ≈≤6 ng/g* **, country: USA⁹², *in cow that **survived**, **after ≈60 h (also at other hour intervals up to 220 h measured, lowest conc.: ≈<0.05 ng/g after 220 h) (mycotoxin values very approximately)

FUMONISIN B,

incidence: 3 /3, sa. const.: black-pied Hostein Friesian cows, contamination: artificial (dose: 30 mg FB₁/cow (850 µg FB₁/kg b. wt.), i.v., once; for detailed information please see the article), conc. range: 95 - $^{5.15**}$ µg/kg, country: Germany²⁷⁴, after 48* and **8 h of application (also at other hour intervals up to 58 h measured, lowest conc.: nd after 58 h for all 3 cows)

incidence: 1/1, sa. const.: dairy cow, wt.: 452-630 kg, contamination: artificial (dose: $50 \mu g FB_1/kg b. wt.$), i.v., once; for detailed information please see the article), conc. range: $\approx \le 210 \text{ ng/ml}$, country: Canada⁶¹⁹, *after $\approx 10 \text{ min}$ (also at other min, hour up to 14 days measured, lowest conc.: nd after 120 min)

incidence: 1/1, sa. const.: dairy cow, wt.: 452–630 kg, contamination: artificial (dose: 200 μg FB₁/kg b. wt.), i.v., once; for detailed information please see the article), conc. range: ≈≤650 ng/ml, country: Canada⁶¹⁹, *after ≈10 min (also at other min, hour up to 14 days measured, lowest conc.: nd after 120 min)

ZEARALENONE

incidence: 1/1, sa. const.: Holstein cross-breed cow, wt.: 480-580 kg, contamination: artificial (dose: 544.5 mg ZEA/day, o., for 21 days), conc.: \leq 3.0 ng/ ml*, country: Canada79 *on day 3 (also at other day intervals up to 5 days measured, lowest conc.: nd after 4 and 5 days) incidence: 1/1, sa. const.: Holstein crossbreed cow, wt.: 480-580 kg, contamination: artificial (dose: 1.8 g ZEA/day, o., for 1 day), conc.: \leq 9.0 ng/ml*, country: Canada79, *on day 1 (also at other day intervals up to 6 days measured, lowest conc.: nd after 5 and 6 days) incidence: 1/1, sa. const.: Holstein cross-breed cow, wt.: 480-580 kg, contamination: artificial (dose: 6 g ZEA/day, o., for 1 day), conc.: \leq 13.0 ng/ ml*, country: Canada79, *on day 1 (also at other day intervals up to 7 days measured, lowest conc.: nd after 6 and 7 days)

Cow red blood cells may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: ≈≤0.1 ng/g* **, country: USA⁹², *in cow that **died**, **after ≈25 h (also at other hour intervals up to 60 h measured, lowest conc.: ≈<0.05 ng/g after ≈35 h) (mycotoxin values very approximately) incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: ≈≤0.07 ng/g* **, country:

USA⁹², *in cow that **survived**, **after ≈25 h (also at other hour intervals up to ≈144 h measured, lowest conc.: ≈0.01 ng/g after ≈145 h) (mycotoxin values very approximately)

AFLATOXIN B, incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB,/kg b. wt., o., once), conc. range: ≈≤0.2 ng/g* **, country: USA⁹², *in cow that died, **after ≈8 h (also at other hour intervals up to 60 h measured, lowest conc.: $\approx <0.05$ ng/g after ≈ 10 and ≈ 24 h) (mycotoxin values very approximately) incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: ≈≤1.5 ng/g* **, country: USA⁹², *in cow that survived, **after

≈50 h (also at other hour intervals up to

after 190 h) (mycotoxin values very

190 h measured, lowest conc.: ≈<0.05 ng/g

AFLATOXIN M,

approximately)

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: ≈≤10 ng/g* **, country: USA92, *in cow that died, **after ≈5 h (also at other hour intervals up to 60 h measured, lowest conc.: ≈<3 ng/g after 60 h) (mycotoxin values very approximately) incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc. range: ≈≤3 ng/g* **, country: USA⁹², *in cow that survived, **after ≈10 h (also at other hour intervals up to 180 h measured, lowest conc.: ≈<0.05 ng/g after 180 h) (mycotoxin values very approximately)

Cow rumen may contain the following mycotoxins and/or their metabolites:

A FLATOXICOL

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 4.9 ng/g* ** ***, country: USA⁹², *in cow that died, **in rumen contents, ***after 60 h

AFLATOXIN B,

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 320 ng/g* ** ***, country: USA⁹², *in cow that died, **in rumen contents, ***after 60 h

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc. range: ≤10.50* and ≤163.00** ng/g*** ****, country: USA93, these highest values measured at the *4th day in the case of cow 1 and at the **1st day in the case of cow 2 (always nd measured up to 3 days (after 4 days slaughtered) in the case of cow 1 and always lower values measured up to 10 days (then slaughtered) in the case of cow 2), for overall information please see the article, ***in rumen content, ****wet

AFLATOXIN M,

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 8.6 ng/g* ** ***, country: USA⁹², *cow died, **in rumen contents, ***after 60 h

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg,

contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc. range: ≤47.70* and ≤848.90** ng/g*** ****, country: USA93, these highest values measured at the *4th day in the case of cow 1 and at the **1st day in the case of cow 2 (always nd measured up to 3 days (after 4 days slaughtered) in the case of cow 1 and always lower values measured up to 10 days (then slaughtered) in the case of cow 2), for overall information please see the article, ***in rumen content, ****dry

Cow spleen may contain the following mycotoxins and/or their metabolites:

Aflatoxin B_1

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.75 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB₁-administration)

incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 10 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA319 incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 50 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: na, country: USA³¹⁹ incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 250 ppb AFB, (labeled and unlabeled), o., twice daily over a 14-day

period; for detailed information please see the article), conc.: nd* **, country: USA³¹⁹, *after 15 days (thereof 14 days with AFB₁-administration), **but significant radioactivity occurred incidence: 1/1, sa. const.: lactating dairy cow, contamination: artificial (dose: 1,250 ppb AFB₁ (labeled and unlabeled), o., twice daily over a 14-day period; for detailed information please see the article), conc.: 0.17 μg/kg**, country: USA³¹⁹, *after 15 days (thereof 14 days with AFB₁-administration)

incidence: 2/2, sa. const.: lactating Francaise Frisonne Pie Noire cows, age: 3–4 years, wt.: 500–550 kg, contamination: artificial (dose: peanut meal ((3.5 mg AFB₁/kg) spiked with labeled AFB₁), o., for 10 days; for detailed information please see the article), conc. range: 6.7–7.9 ng AFB₁ eq/g*, Ø conc.: 7.3 ng AFB₁ eq/g*, country: The Netherlands/UK/France³⁹⁷, *after a 10-day period of consumption of contaminated peanut meal

incidence: 2/2, sa. const.: lactating
Francaise Frisonne Pie Noire cows, age:
3–4 years, wt.: 500–550 kg, contamination:
artificial (dose: peanut meal ((3.5 mg
AFB₁/kg) spiked with labeled AFB₁; but
decontaminated afterwards), o., for
10 days; for detailed information please
see the article), conc.: nd*, country: The
Netherlands/UK/France³⁹⁷, *after a 10-day
period of consumption of

decontaminated peanut meal

AFLATOXIN M,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 1.4 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB₁-doses)

Cow tongue may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 0.87 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB₁-doses)

AFLATOXIN M,

incidence: 1/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: 1.74 ng/g*, country: USA⁹³, *after 4 days (thereof 3 days with AFB₁-doses)

Cow urine may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 0.10 ng/g* **, country: USA⁹², *cow died, **after 60 h

AFLATOXIN B,

incidence: 1/1, sa. const.: lactating cow, wt.: 600 kg, contamination: artificial (dose: 300 mg AFs: 44% AFB₁, 2% AFB₂, 44% AFG₁?, o., once), conc.: 760 µg* (total amount found), country: UK⁴⁰, *collected over a period of 9 days

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial

(dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 4.1 ng/g* **, country: USA⁹², *cow died, **after 60 h

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2-544.3 kg, contamination: artificial (dose: 0.35 mg AFB,/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed information please see the article), conc.: ≤20.60* and ≤39.20** ng/ml, country: USA93, these highest values measured at the *3rd day in the case of cow 1 and at the **1st day in the case of cow 2 (always lower values measured up to 4 days (then slaughtered) in the case of cow 1 and always lower values measured up to 10 days (then slaughtered) in the case of cow 2), for overall information please see the article

AFLATOXIN G,

incidence: 1/1, sa. const.: lactating cow, wt.: 600 kg, contamination: artificial (dose: 300 mg AFs: 44% AFB₁, 2% AFB₂, 44% AFG₁?, o., once), conc.: 1,220 µg* (total amount found), country: UK⁴⁰, *collected over a period of 9 days

AFLATOXIN M,

incidence: 1/1, sa. const.: lactating cow, wt.: 600 kg, contamination: artificial (dose: 300 mg AFs: 44% AFB₁, 2% AFB₂, 44% AFG₁?, o., once), conc.: 2,230 µg* (total amount found), country: UK⁴⁰, *collected over a period of 9 days

incidence: 1/1, sa. const.: Holstein cow (midlactation period), age: 5 years, wt.: 600 kg, contamination: artificial (dose: 0.5 mg AFB₁/kg b. wt., o., once), conc.: 37 ng/g* **, country: USA⁹², *cow died, **after 60 h

incidence: 2/2, sa. const.: Holstein cows (midlactation), wt.: 408.2–544.3 kg, contamination: artificial (dose: 0.35 mg AFB₁/kg b. wt., o., for 3 days (one cow was fed AF-rations for 3 days, the other cow, after 3 days of dosing, was fed AF-free rations for 7 additional days); for detailed

information please see the article), conc.: ≤588.0* and ≤600.80** ng/ml, country: USA⁹³, these highest values measured at the *2nd day in the case of cow 2 and at the **3rd day in the case of cow 1 (always lower values measured up to 4 days (then slaughtered) in the case of cow 1 and always lower values measured up to 10 days (then slaughtered) in the case of cow 2), for overall information please see the article

incidence: 2/2, sa. const.: Jersey milking cows, age: adult, contamination: artificial (dose: $385-1,925 \mu g ZEA/kg + (20 \mu g$ AFB,/kg), o., for 7 weeks; for detailed information please see the article), conc. range: 0.12-0.60 μg/kg*, Ø conc.: 0.36 μg/kg*, country: UK²⁶⁷, *after 7 weeks of (AFB,-) and ZEA-administration; AFB, accidentally in the diet incidence: 2/2, sa. const.: Jersey milking cows, age: adult, contamination: artificial (dose: 317–1,125 μ g OTA/kg + (20 μ g AFB,/kg), o., for 11 weeks; for detailed information please see the article), conc. range: 0.09-0.22 μg/kg*, Ø conc.: 0.36 μg/kg*, country: UK²⁶⁷, *after 11 weeks of (AFB,-) and OTA-administration; AFB, accidentally in the diet

DEOXYNIVALENOL

incidence: 3/3, sa. const.: 2 Holstein dairy cows, 1 Ayrshire dairy cow, wt.: ≈450 kg, contamination: artificial (dose: 66 mg DON/kg, o., for 5 days; for detailed information please see the article), conc. range: ≤390* ng/ml** (19.4 mg** in total, mean value), country: USA²⁷⁸ *after 4 days of application (also at other day intervals up to 12 days measured, lowest conc.: nd at the beginning and the end of the experiment; for detailed information please see the article) **unconjugated DON

DEEPOXYDEOXYNIVALENOL

incidence: 3/3, sa. const.: 2 Holstein dairy cows, 1 Ayrshire dairy cow, wt.: ≈450 kg, contamination: artificial (dose: 66 mg DON/kg, o., for 5 days; for detailed information please see the article), conc.

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range: ≤18,000 ng/ml* (882.1 mg in total, mean value), country: USA²⁷⁸, *after 4 days of application (also at other day intervals up to 12 days measured, lowest conc.: nd at the beginning (1–4 days) of the experiment; for detailed information please see the article)

HT-2 Toxin

incidence: 1/1, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc. range: ≤19.5 ppb*, country: USA¹⁸⁰, *13 h after administration of 2nd dosing (also at other hour intervals up to 48 h measured, lowest conc.: 1.7 ppb after 3 h of 1st dosing)

3′-HYDROXY HT-2 TOXIN incidence: 1/1, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc. range: ≤462.2 ppb*, country: USA¹⁸⁰, *13 h after administration of 2nd dosing (also at other hour intervals up to 48 h measured, lowest conc.: 5.3 ppb after 48 h of 2nd dosing)

Deepoxy-3´-Hydroxy HT-2 Toxin incidence: 1/1, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc. range: ≤461.9 ppb*, country: USA¹⁸⁰, *13 h after administration of 2nd dosing (also at other hour intervals up to 48 h measured, lowest conc.: 2.2 ppb after 48 h of 2nd dosing)

3′-Hydroxy T-2 Toxin incidence: 1/1, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc. range: ≤573.8 ppb*, country: USA¹⁸⁰, *6 h after administration of 2nd dosing (also at other hour

intervals up to 48 h measured, lowest conc.: tr after 20 h of 1st dosing)

3′-HYDROXY-ISO-T-2 TOXIN incidence: 1/1, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc. range: ≤7,221.7 ppb*, country: USA¹⁸⁰, *13 h after administration of 2nd dosing (also at other hour intervals up to 48 h measured, lowest conc.: nd after 3 h of 1st and 48 h of 2nd dosing)

T-2 TETRAGE

incidence: 1/1, sa. const.: Holstein cow, wt.t: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc. range: ≤91.4 ppb*, country: USA¹⁸⁰, *3 h after administration of 1st dosing (also at other hour intervals up to 48 h measured, lowest conc.: tr after 1, 20, 25 h of 1st and 13, 24 and 48 h of 2nd dosing)

DEEPOXY T-2 TETRAOL

incidence: 1/1, sa. const.: Holstein cow, wt.: 365 kg, contamination: artificial (dose: 2 × 200 mg T-2 toxin, by balling gun; for detailed information please see the article), conc. range: ≤1,017.5 ppb*, country: USA¹80, *13 h after administration of 2nd dosing (also at other hour intervals up to 48 h measured, lowest conc.: 9.1 ppb after 3 h of 1st dosing)

Deer

Deer Natural Contamination

Deer urine may contain the following mycotoxins and/or their metabolites:

ZEARALANOLS

incidence: 14/41*, sa. const.: urine from deers of New Zealand, contamination: natural, conc. range: ≤0.94 ng/ml**, country: New Zealand²³⁰, *export animals, **most probable of *Fusarium* origin

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ZEARALENOLS

incidence: 14/41*, sa. const.: urine from deers of New Zealand, contamination: natural, conc. range: ≤15 ng/ml, country: New Zealand²³⁰, *export animals

Deer Artificial Contamination

Deer liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M,

incidence: 7/7*, sa. const.: fawns (white-tailed deer), age: 16–22 weeks, contamination: no AF (for detailed information please see the article), conc.: nr, country: USA ⁶³⁴, *control incidence: 5/6, sa. const.: fawns (white-tailed deer), age: 16–22 weeks, contamination: artificial (dose: 800 ppb AF, o., for 8 weeks; for detailed information please see the article), conc. range: 1–2 ppb*, country: USA ⁶³⁴, *(1 liver contained >2 ppb)

Deer muscle may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M,

incidence: 7/7*, sa. const.: fawns (white-tailed deer), age: 16–22 weeks, contamination: no AF (for detailed information please see the article), conc.: nr, country: USA⁶³⁴, *control incidence: 1/6, sa. const.: fawns (white-tailed deer), age: 16–22 weeks, contamination: artificial (dose: **800 ppb** AF, o., for 8 weeks; for detailed information please see the article), conc.: 0.5–1 ppb*, country: USA⁶³⁴

Dog

Dog Natural Contamination

Dog brain may contain the following mycotoxins and/or their metabolites:

PENITREM A

incidence: 1/1, sa. const.: brain from a male Welsh springer spaniel of Norway/Sweden?, age: 5 years, contamination: natural, conc.: pr, country: Norway/Sweden⁵⁸⁶

ROQUEFORTINE C

incidence: 1/1, sa. const.: brain from a male Welsh springer spaniel of Norway/Sweden?, age: 5 years, contamination: natural, conc.: pr, country: Norway/Sweden⁵⁸⁶

Dog kidney may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 3/3, sa. const.: kidneys from dogs of Austria?, contamination: natural, conc. range: 0.26–0.35 μg/kg, Ø conc.: 0.32 μg/kg, country: Austria³⁴⁰

PENITREM A

incidence: 1/1, sa. const.: kidney from a male Welsh springer spaniel of Norway/Sweden?, age: 5 years, contamination: natural, conc.: pr, country: Norway/Sweden⁵⁸⁶

PENITREM E

incidence: 1/1, sa. const.: kidney from a male Welsh springer spaniel of Norway/Sweden?, age: 5 years, contamination: natural, conc.: pr, country: Norway/Sweden⁵⁸⁶

ROQUEFORTINE C

incidence: 1/1, sa. const.: kidney from a male Welsh springer spaniel of Norway/ Sweden?, age: 5 years, contamination: natural, conc.: pr, country: Norway/ Sweden⁵⁸⁶

Dog liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M,

incidence: 7/9, sa. const.: livers from 2 male and 4 female Basset hounds, 1 female Australian shepherd, 1 female spayed Airedale terrier and 1 male neutered Labrador Mix of the USA, age: 1.25–6 years, contamination: natural, 138 Dog

conc. range: 0.60–4.40 ppb, Ø conc.: 1.99 ppb, country: USA⁴⁷¹

PENITREM A

incidence: 1/1, sa. const.: liver from a male Welsh springer spaniel of Norway/ Sweden?, age: 5 years, contamination: natural, conc.: pr, country: Norway/ Sweden⁵⁸⁶

PENITREM E.

incidence: 1/1, sa. const.: liver from a male Welsh springer spaniel of Norway/ Sweden?, age: 5 years, contamination: natural, conc.: pr, country: Norway/ Sweden⁵⁸⁶

ROOUEFORTINE C

incidence: 1/1, sa. const.: liver from a male Welsh springer spaniel of Norway/ Sweden?, age: 5 years, contamination: natural, conc.: pr, country: Norway/ Sweden⁵⁸⁶

Dog stomach may contain the following mycotoxins and/or their metabolites:

PENITREM A

incidence: ?/2*, sa. const.: vomitus from a Schnauzer and a Miniatur Schnauzer of South Africa, age: 2–3 years, wt.: ≈20–25 kg, contamination: natural (for detailed information please see the article), conc.: 2.6 µg/g wet mass, country: South Africa/Norway⁵⁰⁰, *vomitus

incidence: 1/1, sa. const.: vomitus from a male English setter, age: 10 years, contamination: natural, conc.: ca. 30,000 µg/kg*, country: Norway/ Sweden⁵⁸⁶, *in stomach contents (vomit)

ROQUEFORTINE C

incidence: ?/2*, sa. const.: vomitus from a Schnauzer and a Miniatur Schnauzer of South Africa, age: 2–3 years, wt.: \approx 20–25 kg, contamination: natural (for detailed information please see the article), conc.: 34 µg/g wet mass, country: South Africa/Norway⁵⁰⁰, *vomitus

THOMITREMS

incidence: 1/1, sa. const.: vomitus from a male English setter of Norway/Sweden?, age: 10 years, contamination: natural, conc.: ca. 40,000 µg/kg*, country: Norway/Sweden⁵⁸⁶, *in stomach contents (vomit)

Dog Vomit see Dog stomach

Dog Artificial Contamination

Dog plasma may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 1/1, sa. const.: mongrel, wt.: 20 kg, contamination: artificial (dose: 0.4 mg T-2 Toxin/kg, i.v., once), conc.: ≈≤103 ng/ml*, country: Israel⁴⁸⁷, *after ≈25 min (also at other min intervals up to ≈180 min measured, lowest conc.: ≈6 ng/ml after ≈180 min)

T-2 Toxin

incidence: 1/1, sa. const.: mongrel, wt.: 20 kg, contamination: artificial (dose: 0.4 mg T-2 Toxin/kg, i.v., once), conc.: ≈≤1,450 ng/ml*, country: Israel⁴⁸⁷, *after 0 min (also measured after 5, 10 and 16 min, lowest conc.: nd after 16 min)

VERRUCAROL

incidence: ?/8, sa. const.: male and female monogrels, wt.: 20-25 kg, contamination: artificial (dose: 0.4 mg VER/kg, i.v., once; for detailed information please see the article), conc. range: ≈≤590 ng/ml (mean value), country: Israel408, *after <10 min (also at other min intervals up to ≈420 min measured, lowest conc.: ≈20 ng/ml after 420 min) incidence: ?/8, sa. const.: male and female monogrels, wt.: 20-25 kg, contamination: artificial (dose: 0.8 mg VER/kg, o., once; for detailed information please see the article), conc. range: ≈≤180 ng/ml* (mean value), country: Israel408, *after ≈50 min (also at other min intervals up to

≈420 min measured, lowest conc.: ≈5 ng/ml after 420 min)

Duck

Duck Natural Contamination

Duck liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/8*, sa. const.: livers from domestic Chinese brown ducks, age: adult (at least 3 years old), contamination: natural, conc.: 3.71 ng AFB₁-FAPy/mg DNA** (mean value) or 6.38 pmol/mg DNA** (mean value), country: France/People's Republic of China³¹, *7 were infected with HCC (1 additionally with AFB₁) **liver DNA

Duck Artificial Contamination

Duck bile may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: ?/54*, sa. const.: Pekin ducks, age: 1 day, contamination: no DON + ZEA (for detailed information please see the article), conc.: 59 µg/kg** (mean value), country: Germany469, *control, **after 49 days incidence: ?/54, sa. const.: Pekin ducks, age: 1 day, contamination: artificial (dose: successively increased up to 6-7 mg DON/ kg and successively increased up to 0.05-0.06 mg ZEA/kg contaminated wheat (proportion: 40%), for 49 days; for detailed information please see the article), conc. range: ≤296 μg/kg* (mean value), country: Germany469, *after 49 days (0, 10, 20, 30, 40*, 50 or 60% Fusariumcontaminated wheat in the diet, always lower residue values recorded)

α -Zearalenol

incidence: ?/54*, sa. const.: Pekin ducks, age: 1 day, contamination: no DON + ZEA (for detailed information please see the article), conc.: 12 µg/kg** (mean value),

country: Germany⁴⁶⁹, *control, **after 49 days

incidence: ?/54, sa. const.: Pekin ducks, age: 1 day, contamination: artificial (dose: successively increased up to 6-7 mg DON/kg and successively increased up to 0.05–0.06 mg ZEA/kg contaminated wheat (proportion: 60%), for 49 days; for detailed information please see the article), conc. range: ≤57 μg/kg* (mean value), country: Germany⁴69, after 49 days (0, 10, 20, 30, 40, 50 or 60%* *Fusarium*-contaminated wheat in the diet, always equal or lower residue values recorded)

B-ZEARALENOL

incidence: ?/54*, sa. const.: Pekin ducks, age: 1 day, contamination: no DON + ZEA (for detailed information please see the article), conc.: nd, country: Germany469, *control incidence: ?/54, sa. const.: Pekin ducks, age: 1 day, contamination: artificial (dose: successively increased up to 6-7 mg DON/ kg and successively increased up to 0.05-0.06 mg ZEA/kg contaminated wheat (proportion: 40%), for 49 days; for detailed information please see the article), conc. range: ≤25 µg/kg* (mean value), country: Germany469, *after 49 days (0, 10, 20, 30, 40*, 50 or 60% Fusariumcontaminated wheat in the diet, always lower residue values recorded)

Duck liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN

incidence: 4/4*, sa. const.: 3 male and 1 female Pekin ducklings, age: ≈1 year, contamination: artificial (dose: 0.02 mg AFB₁ (labeled)/kg b. wt., i.p., once), conc. range: 204–1,057 pg AF/mg DNA**, Ø conc.: 764 pg AF/mg DNA****, country: France⁶, *uninfected with DHBV, **liver DNA, ***after 48 h incidence: 4/4*, sa. const.: 3 male and 1 female Pekin ducklings, age: ≈1 year.

1 female Pekin ducklings, age: ≈1 year, contamination: artificial (dose: 0.02 mg AFB₁ (labeled)/kg b. wt., i.p., once), conc. range: 318–420 pg AF/mg DNA**, Ø conc.: 379 pg AF/mg DNA****, country:

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France⁶, *infected with DHBV, **liver DNA, ***after 48 h

incidence: 5?/5, sa. const.: Pekin ducks, contamination: artificial (dose: 2 µg AFB₁/kg b. wt., i.p., for 8 days and additionally 2 µg AFB₁ (labeled)/kg b. wt. 4 days later, i.p., once, **HBV pos.**; for detailed information please see the article), conc.: 34.94 pg AF/mg DNA* ** (mean value), country: France³⁰, *AF-liver DNA adducts, **after 24 h

incidence: 5?/5, sa. const.: Pekin ducks, contamination: artificial (dose: 2 μg AFB₁/kg b. wt., i.p., for 8 days and additionally 2 μg AFB₁ (labeled)/kg b. wt. 4 days later, i.p., once, **HBV neg.**; for detailed information please see the article), conc.: 32.14 pg AF/mg DNA* ** (mean value), country: France³⁰, *AF-liver DNA adducts, **after 24 h

incidence: 5?/5, sa. const.: Pekin ducks, contamination: artificial (dose: 2 μg AFB₁ (labeled)/kg b. wt., i.p., once, **HBV pos.**; for detailed information please see the article), conc.: 23.71 pg AF/mg DNA*

** (mean value), country: France³⁰,

*AF-liver DNA adducts, **after 24 h incidence: 5?/5, sa. const.: Pekin ducks, contamination: artificial (dose: 2 μg AFB₁ (labeled)/kg b. wt., i.p., once, **HBV neg.**; for detailed information please see the article), conc.: 26.52 pg AF/mg DNA* ** (mean value), country: France³⁰, *AF-liver DNA adducts, **after 24 h

Duck plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXIN

incidence: 4/4*, sa. const.: 3 male and 1 female Pekin ducklings, age: 1 year, contamination: artificial (dose: 0.02 mg AFB₁ (labeled)/kg b. wt., i.p., once), conc. range: 73–134 pg AF/mg plasma protein*, Ø conc.: 108.5 pg AF/mg plasma protein**, country: France⁶, *uninfected with DHBV, **after 48 h

incidence: 4/4*, sa. const.: 3 male and 1 female Pekin ducklings, age: 1 year, contamination: artificial (dose: 0.02 mg AFB₁ (labeled)/kg b. wt., i.p., once), conc. range: 61–83 pg AF/mg plasma protein*, Ø conc.: 73 pg AF/mg plasma protein**, country: France⁶, *infected with DHBV, **after 48 h

FUSARENON-X

incidence: ?/6, sa. const.: ducks, age: 4 weeks, Ø wt.: 1.16 kg, contamination: artificial (dose: 2.2 mg FX/kg b. wt., i.v., once), conc. range: ≈≤230 ng/ml* (mean value), country: Thailand/Japan⁴⁷⁴, *after ≈5 min (also at other min intervals up to 180 min measured, lowest conc.: ≈3.6 ng/ml after 180 min) incidence: ?/6, sa. const.: ducks, age: 4 weeks, Ø wt.: 1.16 kg, contamination: artificial (dose: 2.2 mg FX/kg b. wt., o., once), conc. range: ≈≤13 ng/ml* (mean value), country: Thailand/Japan474, *≈10 min (also at other min intervals up to 120 min measured, lowest conc.: ≈1.7 ng/ml after 120 min)

NIVALENOL

incidence: ?/6, sa. const.: ducks, age: 4 weeks, Ø wt.: 1.16 kg, contamination: artificial (dose: 2.2 mg FX/kg b. wt., i.v., once), conc. range: ≈≤480 ng/ml (mean value), country: Thailand/Japan⁴⁷⁴, *after ≈5 min (also at other min intervals up to 240 min measured, lowest conc.: ≈1 ng/ml after 240 min)

incidence: ?/6, sa. const.: ducks, age: 4 weeks, Ø wt.: 1.16 kg, contamination: artificial (dose: 2.2 mg FX/kg b. wt., o., once), conc. range: ≈≤212 ng/ml* (mean value), country: Thailand/Japan⁴⁷⁴, *≈10 min (also at other min intervals up to 180 min measured, lowest conc.: ≈2 ng/ml after 180 min)

Duck serum may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 5?/5, sa. const.: Pekin ducks,

contamination: artificial (dose: 2 µg AFB₁/kg b. wt., i.p., for 8 days and additionally 2 µg

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AFB, (labeled)/kg b. wt. 4 days later, i.p., once, HBV pos.; for detailed information please see the article), conc.: 15.1 pg AF/mg protein* ** (mean value), country: France³⁰, *AF-serum protein adducts, **after 24 h incidence: 5?/5, sa. const.: Pekin ducks, contamination: artificial (dose: 2 µg AFB₁/kg b. wt., i.p., for 8 days and additionally 2 µg AFB, (labeled)/kg b. wt. 4 days later, i.p., once, HBV neg.; for detailed information please see the article), conc.: 11.9 pg AF/mg protein* ** (mean value), country: France30, *AF-serum protein adducts, **after 24 h incidence: 5?/5, sa. const.: Pekin ducks, contamination: artificial (dose: 2 µg AFB, (labeled)/kg b. wt., i.p., once, HBV pos.; for detailed information please see the article), conc.: 15.2 pg AF/mg protein* ** (mean value), country: France30, *AF-serum protein adducts, **after 24 h incidence: 5?/5, sa. const.: Pekin ducks, contamination: artificial (dose: 2 µg AFB, (labeled)/kg b. wt., i.p., once, HBV neg.; for detailed information please see the article), conc.: 14.0 pg AF/mg protein* ** (mean value), country: France³⁰, *AF-serum protein adducts, **after 24 h

Egg White see Hen egg

Egg Yolk see Hen egg

Ewe

Ewe Artificial Contamination

Ewe feces may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 1/1, sa. const.: lactating ewe, contamination: artificial (dose: 78 mg AFs: 36% AFB₁, 3% AFB₂, 52% AFG₁, 2% AFG₂?, via stomach tube, once), conc.: 123 μg*, country: UK³⁸, *total amount found

AFLATOXIN G₁ incidence: 1/1, sa. const.: lactating ewe, contamination: artificial (dose: 78 mg AFs: 36% AFB₁, 3% AFB₂, 52% AFG₁, 2% AFG₂?,

via stomach tube, once), conc.: 138 μg*, country: UK³⁸, *total amount found

Aflatoxin M_1

incidence: 1/1, sa. const.: lactating ewe, contamination: artificial (dose: 78 mg AFs: 36% AFB₁, 3% AFB₂, 52% AFG₁, 2% AFG₂?, via stomach tube, once), conc.: 768 µg*, country: UK³⁸, *total amount found

Ewe milk, raw may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/1, sa. const.: lactating ewe, contamination: artificial (dose: 78 mg AFs: 36% AFB₁, 3% AFB₂, 52% AFG₁, 2% AFG₂?, via stomach tube, once), conc.: 1.5 µg*, country: UK³⁸, *total amount found

AFLATOXIN G,

incidence: 1/1, sa. const.: lactating ewe, contamination: artificial (dose: 78 mg AFs: 36% AFB₁, 3% AFB₂, 52% AFG₁, 2% AFG₂?, via stomach tube, once), conc.: 1.4 µg*, country: UK³⁸, *total amount found

AFLATOXIN M₁ incidence: 1/1, sa. const.: lactating ewe, contamination: artificial (dose: 78 mg AFs:

36% AFB₁, 3% AFB₂, 52% AFG₁, 2% AFG₂?, via stomach tube, once), conc.: 70.0 µg*, country: UK³⁸, *total amount found

incidence: 4/4, sa. const.: multiparous Sarda ewes (early lactation), wt.: \approx 43.5 kg, contamination: artificial (dose: 2 mg AFB₁, o., once), conc. range: \approx 50.39 µg/kg* (mean value), country: Italy⁴⁷⁶, *after 6 h (also at other hour intervals up to 96 h measured, lowest conc.: nd after 96 h) incidence: 4/4*, sa. const.: multiparous Sarda ewes (late lactation), wt.: \approx 40.2 kg, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: Italy⁴⁷⁶, *control

142 Ewe

incidence: 4/4, sa. const.: multiparous Sarda ewes (late lactation), wt.: ≈40.2 kg, contamination: artificial (dose: 32 µg AFB,/day, o., for 13 days; for detailed information please see the article), conc. range: ≈≤0.057 μg/kg* (mean value), country: Italy476, *after 144 h of AFB, -administration (up to 20 days measured, lowest conc.: nd at 72 h post withdrawal) incidence: 4/4, sa. const.: multiparous Sarda ewes (late lactation), wt.: ≈40.2 kg, contamination: artificial (dose: 64 µg AFB,/day, o., for 13 days; for detailed information please see the article), conc. range: ≈≤0.226 µg/kg* (mean value), country: Italy⁴⁷⁶, *after 144 h of AFB, -administration (up to 20 days measured, lowest conc.: nd at 72 h post withdrawal) incidence: 4/4, sa. const.: multiparous Sarda ewes (late lactation), wt.: ≈40.2 kg, contamination: artificial (dose: 128 µg AFB,/day, o., for 13 days; for detailed information please see the article), conc. range: ≈≤0.331 µg/kg* (mean value), country: Italy476, *after 144 h of AFB, -administration (up to 20 days measured, lowest conc.: nd at 72 h post withdrawal)

incidence: 5/5*, sa. const.: Sarda ewes (late lactation), wt.: ≈48 kg, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: Italy477, *control incidence: 5?/5, sa. const.: Sarda ewes (late lactation), wt.: ≈48 kg, contamination: artificial (dose: 32 µg AFB,/day, o., for 7 days; for detailed information please see the article), conc. range: ≈≤200 ng/kg* (mean value), country: Italy477, *after 7 days of first AFB, -administration (also at other day intervals up to 11 days measured, lowest conc.: nd after 11 days) incidence: 5?/5, sa. const.: Sarda ewes (late lactation), wt.: ≈48 kg, contamination: artificial (dose: 64 µg AFB₁/day, o., for 7 days; for detailed information please see the article), conc. range: $\approx \le 380$ ng/kg* (mean value), country: Italy⁴⁷⁷, *after 4 days of first AFB₁-administration (also at other day intervals up to 11 days measured, lowest conc.: nd after 11 days) incidence: 5?/5, sa. const.: Sarda ewes (late lactation), wt.: ≈ 48 kg, contamination: artificial (dose: $128 \mu g$ AFB₁/day, o., for 7 days; for detailed information please see the article), conc. range: $\approx \le 640$ ng/kg* (mean value), country: Italy⁴⁷⁷, *after 4 days of first AFB₁-administration (also at other day intervals up to 11 days measured, lowest conc.: nd after 11 days)

incidence: 6/6*, sa. const.: Sarda ewes (late lactation), contamination: no AF contaminated wheat meal in diet (for detailed information please see the article), conc.: nd, country: Italy⁵⁸³, *control incidence: 6?/6, sa. const.: Sarda ewes (late lactation), contamination: artificial

Incidence: 6?/6, sa. const.: Sarda ewes (late lactation), contamination: artificial (dose: 1.13 μg AFB₁/kg feed = L-AF (low portion of wheat meal naturally contaminated with AFs in the diet), o., for 14 days; for detailed information please see the article), conc. range: ≈≤43 ng/ml*, country: Italy⁵⁸³, *after 8 days of AFs-administration (also at other day intervals up to 18 days measured, lowest conc.: nd after 18 days, no effect of DYP (12 g/day) observed given for 7 days starting on day 8) incidence: 6?/6, sa. const.: Sarda ewes (late

lactation), contamination: artificial (dose: 2.30 µg AFB₁/kg feed = M-AF (medium portion of wheat meal naturally contaminated with AFs in the diet), o., for 14 days; for detailed information please see the article), conc. range: ≈≤52 ng/ml*, country: Italy⁵⁸³, *after 8 days of AFs-administration (also at other day intervals up to 18 days measured, lowest conc.: nd after 18 days, no effect of DYP (12 g/day) observed given for 7 days starting on day 8)

incidence: 6?/6, sa. const.: Sarda ewes (late lactation), contamination: artificial (dose: 5.03 µg AFB,/kg feed = H-AF (high

portion of wheat meal naturally contaminated with AFs in the diet), o., for 14 days; for detailed information please see the article), conc. range: ≈≤81 ng/ml*, country: Italy⁵⁸³, *after 10 days of AFs-administration (also at other day intervals up to 18 days measured, lowest conc.: nd after 18 days, no effect of DYP (12 g/day) observed given for 7 days starting on day 8)

CYCLOPIAZONIC ACID

incidence: ?/3, sa. const.: crossbred lactating ewes, contamination: artificial (dose: 5 mg CPA/kg, o., daily for 2 days), conc. range: ≤568 ng/g*, country: Australia³67, *after ≈2 days (also at other day intervals up to 9 days measured, lowest conc.: nd after 9 days)

OCHRATOXIN A

incidence: 3?/3, sa. const.: dairy ewes, contamination: artificial (dose: 30 μg OTA + 1.8 μg OTB/kg b. wt., o., once), conc.: ≈≤158 μg/l* (mean value), country: France⁵⁵⁵, *after 1 day (also at other day intervals up to 8 days measured, lowest conc.: nd after 6 days)

OCHRATOXIN Q

incidence: 3?/3, sa. const.: dairy ewes, contamination: artificial (dose: $30 \mu g$ OTA + $1.8 \mu g$ OTB/kg b. wt., o., once), conc.: $\approx \le 1,200 \mu g/l^*$ (mean value), country: France⁵⁵⁵, *after 1 day (also at other day intervals up to 8 days measured, lowest conc.: nd after 6 days)

Ewe plasma may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 3?/3, sa. const.: dairy ewes, contamination: artificial (dose: 30 μ g OTA + 1.8 μ g OTB/kg b. wt., o., once), conc.: \approx 517 μ g/l* (mean value), country: France⁵⁵⁵, *after \approx 4 h (also at other hour intervals up to 168 h measured, lowest conc.: nd after 72 h)

Ochratoxin α

incidence: 3?/3, sa. const.: dairy ewes, contamination: artificial (dose: 30 μ g OTA + 1.8 μ g OTB/kg b. wt., o., once), conc.: $\approx \le 9 \mu$ g/l* (mean value), country: France⁵⁵⁵, *after ≈ 4 h (also at other hour intervals up to 168 h measured, lowest conc.: nd after 72 h)

Ewe urine may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/1, sa. const.: lactating ewe, contamination: artificial (dose: 78 mg AFs: 36% AFB₁, 3% AFB₂, 52% AFG₁, 2% AFG₂?, via stomach tube, once), conc.: tr*, country: UK³⁸, *total amount found

Aflatoxin G_1

incidence: 1/1, sa. const.: lactating ewe, contamination: artificial (dose: 78 mg AFs: 36% AFB₁, 3% AFB₂, 52% AFG₁, 2% AFG₂?, via stomach tube, once), conc.: 2,411 µg*, country: UK³⁸, *total amount found

AFLATOXIN M,

incidence: 1/1, sa. const.: lactating ewe, contamination: artificial (dose: 78 mg AFs: 36% AFB₁, 3% AFB₂, 52% AFG₁, 2% AFG₂?, via stomach tube, once), conc.: 1,662 µg*, country: UK³⁸, *total amount found

Fish

Fish Artificial Contamination

Fish, carp

Fish, carp plasma may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 6?/6, sa. const.: carps, wt.: 1,000 g, contamination: artificial (dose: 50 ng OTA/g b. wt., o., once), conc.: 14 ng/ml (mean value), country: Sweden/Yugoslavia¹⁹³ (at other min intervals up to 270 min measured)

incidence: 6?/6, sa. const.: carps, wt: 1,000 g, contamination: artificial (dose: 50 ng OTA/g b. wt., i.v., once), conc.: 200 ng/ml (mean value), country: Sweden/Yugoslavia¹⁹³ (at other min intervals up to 270 min measured)

Fish, Channel Catfish

Fish, channel catfish bile may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: ?/?, sa. const.: channel catfishes, wt.: 0.3-0.5 kg, contamination: artificial (dose: $250 \mu g/kg AFB_1$ (labeled), o., once; for detailed information please see the article), conc. range: $\leq 2,019 ppb^*$ ** (mean value), country: USA⁵¹⁶, *after 24 h (also measured after 2, 4, 48 and 96 h, lowest conc.: 149 ppb after 2 h), **AFB₁ and its metabolites (total residues)

Fish, channel catfish fat may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/?, sa. const.: channel catfishes, wt.: 0.3-0.5 kg, contamination: artificial (dose: $250 \mu g/kg AFB_1$ (labeled), o., once; for detailed information please see the article), conc. range: $\leq 58 \text{ ppb}^*$ ** (mean value), country: USA⁵¹⁶, *after 4 h (also measured after 2, 24, 48 and 96 h, lowest conc.: tr after 48 and 96 h), **AFB₁ eq.

Fish, channel catfish kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/?, sa. const.: channel catfishes, wt.: 0.3-0.5 kg, contamination: artificial (dose: $250 \mu g/kg AFB_1$ (labeled), o., once; for detailed information please see the article), conc. range: $\leq 220 \text{ ppb* ******}$ (mean value), country: USA⁵¹⁶, *after 4 h (also measured after 2, 24, 48 and 96 h,

lowest conc.: tr after 96 h), **AFB₁ eq., ***in **head kidney** incidence: ?/?, sa. const.: channel catfishes, wt.: 0.3–0.5 kg, contamination: artificial (dose: $250 \mu g/kg AFB_1$ (labeled), o., once; for detailed information please see the article), conc. range: $\leq 287 \text{ ppb*}*******$ (mean value), country: USA⁵¹⁶, *after 4 h (also measured after 2, 24, 48 and 96 h, lowest conc.: 15 ppb after 96 h), **AFB₁ eq., ***in **trunk kidney**

Fish, channel catfish liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/?, sa. const.: channel catfishes, wt.: 0.3–0.5 kg, contamination: artificial (dose: 250 μg/kg AFB₁ (labeled), o., once; for detailed information please see the article), conc. range: ≤421 ppb*** (mean value), country: USA⁵¹⁶, *after 4 h (also measured after 2, 24, 48 and 96 h, lowest conc.: 37 ppb after 48 h), **AFB₁ eq.

Fish, channel catfish muscle may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/?, sa. const.: channel catfishes, wt.: 0.3-0.5 kg, contamination: artificial (dose: $250 \mu g/kg$ AFB₁ (labeled), o., once; for detailed information please see the article), conc. range: ≤ 40 ppb* ** (mean value), country: USA⁵¹⁶, *after 4 h (also measured after 2, 24, 48 and 96 h, lowest conc.: tr after 24, 48 and 96 h), **AFB₁ eq.

Fish, channel catfish plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: ?/?, sa. const.: channel catfishes, wt.: 0.3–0.5 kg, contamination: artificial (dose: 250 µg/kg AFB₁ (labeled), o., once; for detailed information please see the article), conc. range: ≤596 ppb* **

(mean value), country: USA⁵¹⁶, *after 4 h (also measured after 2, 24, 48 and 96 h, lowest conc.: 6 ppb after 96 h), **AFB₁ eq.

Fish, channel catfish skin may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: ?/?, sa. const.: channel catfishes, wt.: 0.3–0.5 kg, contamination: artificial (dose: 250 μg/kg AFB₁ (labeled), o., once; for detailed information please see the article), conc. range: ≤82 ppb* ** (mean value), country: USA⁵¹⁶, *after 4 h (also measured after 2, 24, 48 and 96 h, lowest conc.: tr after 96 h), **AFB₁ eq.

Fish, channel catfish spleen may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: ?/?, sa. const.: channel catfishes, wt.: 0.3–0.5 kg, contamination: artificial (dose: 250 μg/kg AFB₁ (labeled), o., once; for detailed information please see the article), conc. range: ≤234 ppb* ** (mean value), country: USA⁵¹⁶, *after 4 h (also measured after 2, 24, 48 and 96 h, lowest conc.: tr after 48 and 96 h), **AFB, eq.

Fish, channel catfish urine may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B_1 incidence: ?/?, sa. const.: channel catfishes, wt.: 0.3-0.5 kg, contamination: artificial (dose: $250 \mu g/kg$ AFB $_1$ (labeled), o., once; for detailed information please see the article), conc. range: $\leq 51 \text{ ppb*}^{**}$ (mean value), country: USA 516 , *after 4–6 h (also measured after 2, 8, 10, 12, 18 and 24 h, except the start value lowest conc.: 6 ppb after 24 h), **AFB $_1$ and its metabolites (total residues)

Fish, Coho Salmon

Fish, coho salmon bile may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 2?/2*, sa. const.: coho salmons, age: 15 months, wt.: 44–184 g, contamination: artificial (dose: 50 µg AFB₁ (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 1.49 µM AFL-g ** (mean value), country: USA⁶²⁸, *control, **after 24 h, compare with Fish, rainbow trout bile AFL no.⁶²⁸

AFLATOXICOL M_1 incidence: 2?/2*, sa. const.: coho salmons, age: 15 months, wt.: 44–184 g, contamination: artificial (dose: 50 μ g AFB $_1$ (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 0.07 μ M AFLM $_1$ -g ** (mean value), country: USA 628 , *control, **after 24 h, compare with Fish, rainbow trout bile AFLM $_1$ no. 628

AFLATOXIN B₁ incidence: 2?/2*, sa. const.: coho salmons, age: 15 months, wt.: 44–184 g, contamination: artificial (dose: 50 μ g AFB₁ (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: nd** ***, country: USA⁶²⁸, *control, **AFB₁-SG, ***after 24 h, compare with Fish, rainbow trout bile

Fish, coho salmon embryo may contain the following mycotoxins and/or their metabolites:

AFB, no.628

AFLATOXIN B_1 incidence: ?/12, sa. const.: coho salmon eggs/embryos, age: 21 days, contamination: artificial (dose: 0.5 μ g AFB $_1$ (labeled)/ml, for 1 h; for detailed information please see the article), conc.: 0.07 pmol AFB $_1$ /mg DNA (mean value), country: USA 115 , *in embryos \approx 48 h to hatching,

compare with Fish, rainbow trout embryo AFB, no. 115

Fish, coho salmon liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 1/1, sa. const.: coho salmon, wt.: 30.6 g, contamination: artificial (dose: 80 ppb AFB, (labeled), o., for 3 weeks), conc.: 1.6 pmol AFB,/mg DNA*, country: USA115, *after 3 weeks, compare with Fish, rainbow trout liver AFB, 1st statement of no.115 incidence: 3?/3, sa. const.: coho salmons, contamination: artificial (dose: 23.6 µg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 4.0 pmol AFB₁/mg DNA* (mean value), country: USA115, *after 2 days, **AFB,- N^7 -Gua³ adducts, compare with Fish, rainbow trout liver AFB,, 2nd statement of no.115 incidence: 3?/3, sa. const.: coho salmons, contamination: artificial (dose: 23.6 µg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 1.2 pmol AFB,/mg DNA* (mean value), country: USA115, *after 21 days, **AFB,- N^7 -Gua³ adducts, compare with Fish, rainbow trout liver AFB, 3rd statement of no.115 incidence: 3?/3, sa. const.: coho salmons, contamination: artificial (dose: 23.6 µg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 0.5 pmol AFB,/mg DNA* ** (mean value), country: USA115, *after 2 days, **AFB,-FAPyr adducts, compare with Fish, rainbow trout liver AFB, 4th statement of no.115 incidence: 3?/3, sa. const.: coho salmons, contamination: artificial (dose: 23.6 µg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 0.8 pmol AFB,/mg DNA* ** (mean value), country: USA115, *after 21 days, **AFB,-FAPyr adducts,

compare with Fish, rainbow trout liver AFB,, 5th statement of no.115 incidence: 3?/3, sa. const.: coho salmons, contamination: artificial (dose: 23.6 µg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 0.2 pmol AFB,/mg DNA* (mean value), country: USA115, *after 2 days, **AFB,-minor FAPyr isomer adducts, compare with Fish, rainbow trout liver AFB, 6th statement of no.115 incidence: 3?/3, sa. const.: coho salmons, contamination: artificial (dose: 23.6 µg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 0.2 pmol AFB,/mg DNA* (mean value), country: USA115, *after 21 days, **AFB,-minor FAPyr isomer adducts, compare with Fish, rainbow trout liver AFB, 7th statement of no. 115

incidence: ?/?, sa. const.: coho salmons, age: 13 months, wt.: 61 g, contamination: artificial (dose: 50 µg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 10.6 pmol AFB₁ binding/mg DNA* (mean value), country: USA¹⁷⁷, *after 24 h, compare with Fish, rainbow trout liver AFB₁, 1st statement of no.¹⁷⁷

Fish, Medaka

Fish, medaka liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 6?/6, sa. const.: Japanese medaka fishes, age: adult, wt.: 4–5 g, contamination: artificial (dose: 70, 140, 275 or 550* µg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: ≈≤23 pmol AFB₁/µmol DNA* ** (mean value), country: USA⁶²⁵, **after 24 h incidence: 6?/6, sa. const.: Japanese medaka fishes, age: adult, wt.: 4–5 g, contamination:

artificial (dose: 550 µg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: ≈≤21.5 pmol AFB₁/µmol DNA* (mean value), country: USA⁶²⁵, *after 1 day (also at other day intervals up to 21 days measured, lowest conc.: ≈3.5 pmol AFB₁/µmol DNA after 21 days)

Fish, Rainbow Trout

Fish, rainbow trout bile may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 μl containing 0.32 μmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: ≈≤1.18 μM AFL-g in bile** (mean value), country: USA²¹², *control, **after 24 h post-injection (also measured after 5, 10 and 16 h, lowest conc.: ≈0.48 µM AFL-g in bile after 5 h) incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once and I3C-diet (0.2%) for 12 weeks prior to AFB, injection; for detailed information please see the article), conc. range: ≈≤1.18 μM AFL-g in bile* (mean value), country: USA212, *after 24 h post-injection (also measured after 5, 10 and 16 h, lowest conc.: ≈0.50 µM AFL-g in bile after 5 h)

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 μ g AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc. range: \approx 51.2 μ M AFL-g in bile** (mean value), country: USA²¹³, *control, **after 24 h post-injection (also measured after 5, 10 and 16 h, lowest conc.: \approx 0.45 μ M AFL-g in bile after 5 h)

incidence: ?/?, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 100 ppm PCB for 2 month prior to 2.47 μg AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc. range: $\approx \le 0.8 \ \mu M$ AFL-g in bile* (mean value), country: USA²¹³, *after 24 h post-injection (also measured after 5, 10 and 16 h, lowest conc.: $\approx 0.40 \ \mu M$ AFL-g in bile after 5 h)

incidence: ?/?*, sa. const.: Mt Shasta strain rainbow trouts, wt.: \approx 50 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: \approx 51.23 μ M AFL-g in bile** (mean value), country: USA²⁶⁰, *control, **after 24 h (also measured after 5, 10 and 16 h, lowest conc.: \approx 0.45 μ M AFL-g in bile after 5 h)

incidence: ?/?, sa. const.: Mt Shasta strain rainbow trouts, wt.: \approx 50 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once and BNF-diet (0.05%) for 12 weeks prior to AFB₁-injection; for detailed information please see the article), conc. range: \approx 6.5 μ M AFL-g in bile* (mean value), country: USA²⁶⁰, *after 10 h (also measured after 5, 16 and 24 h, lowest conc.: \approx 0.33 μ M AFL-g in bile after 5 h)

incidence: $2?/2^*$, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216-416 g, contamination: artificial (dose: 50 µg AFB₁ (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 5.66 µM AFL- g^{**}

(mean value), country: USA⁶²⁸, *control, **after 24 h,

compare with Fish, coho salmon bile AFL no. $^{628}\,$

incidence: 2?/2, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216–416 g, contamination: artificial (dose: βNF-diet (500 ppm) fed for 3 weeks prior to 50 μg AFB₁ (labeled)/kg fish, i.p., once;

for detailed information please see the article), conc.: 0.92 μM AFL-g* (mean value), country: USA628, *after 24 h incidence: 2?/2, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216-416 g, contamination: artificial (dose: I3Cdiet (2,000 ppm) fed for 3 weeks prior to 50 μg AFB, (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 5.6 μM AFL-g* (mean value), country: USA628, *after 24 h incidence: 2?/2, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216-416 g, contamination: artificial (dose: PCB-diet (100 ppm) fed for 3 weeks prior to 50 µg AFB, (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 2.64 μM AFL-g* (mean value), country: USA628, *after 24 h

AFLATOXICOL M,

incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: ≈≤0.245 μM AFLM,-g in bile** (mean value), country: USA²¹², *control, **after 16 h post-injection (also measured after 5, 10 and 24 h, lowest conc.: ≈0.15 µM AFLM,-g in bile after 5 h) incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once and I3C-diet (0.2%) for 12 weeks prior to AFB, injection; for detailed information please see the article), conc. range: ≈≤1.50 μM AFLM,-g in bile* (mean value), country: USA212, *after 16 h post-injection (also measured after 5, 10 and 24 h, lowest conc.: ≈0.60 µM AFLM,-g

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 μ g AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc. range: \approx 50.2 μ M AFLM₁-g

in bile after 5 h)

in bile** (mean value), country: USA²¹³, *control, **after 16 h post-injection (also measured after 5, 10 and 24 h, lowest conc.: \approx 0.10 μ M AFLM₁-g in bile after 5 h) incidence: ?/?, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: **100 ppm PCB** for 2 month prior to 2.47 μ g AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc. range: \approx 5.3.5 μ M AFLM₁-g in bile* (mean value), country: USA²¹³, *after 16 h post-injection (also measured after 5, 10 and 24 h, lowest conc.: \approx 2.1 μ M AFLM₁-g in bile after 10 h)

incidence: ?/?*, sa. const.: Mt Shasta strain rainbow trouts, wt.: ≈50 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: ≈≤0.23 µM AFLM,-g in bile** (mean value), country: USA260, *control, **after 16 and 24 h (also measured after 5 and 10 h, lowest conc.: ≈0.1 µM AFLM,-g in bile after 5 h) incidence: ?/?, sa. const.: Mt Shasta strain rainbow trouts, wt.: ≈50 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once and BNF-diet (0.05%) for 12 weeks prior to AFB,-injection; for detailed information please see the article), conc. range: ≈≤3.3 μM AFLM₁-g in bile* (mean value), country: USA260, *after 10 h (also measured after 5, 16 and 24 h, lowest conc.: ≈1.26 µM AFLM,-g in bile after 5 h)

incidence: 2?/2*, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216–416 g, contamination: artificial (dose: 50 μ g AFB₁ (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 1.47 μ M AFLM₁-g ** (mean value), country: USA⁶²⁸, *control, **after 24 h, compare with **Fish, coho salmon bile** AFLM₁ no. 628 incidence: 2?/2, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216–416 g, contamination: artificial (dose:

βNF-diet (500 ppm) for 3 weeks prior to 50 μg AFB, (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 26.68 µM AFLM,-g* (mean value), country: USA628, *after 24 h incidence: 2?/2, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216-416 g, contamination: artificial (dose: I3C-diet (2,000 ppm) for 3 weeks prior to 50 µg AFB, (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 9.5 µM AFLM,-g* (mean value), country: USA⁶²⁸, *after 24 h incidence: 2?/2, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216-416 g, contamination: artificial (dose: PCB-diet (100 ppm) for 3 weeks prior to 50 µg AFB, (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 15.4 µM AFLM, -g* (mean value), country: USA628, *after 24 h

AFLATOXIN B₁ incidence: 3?/3*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: \approx 400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB₁ (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: \approx 52.8 µM AFB₁ in bile** (mean value), country: USA²¹², *control, **after 24 h postinjection (also measured after 5, 10 and 16 h, lowest conc.: \approx 1.3 µM AFB₁ in bile after 5 h)

after 5 h) incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, wt.: \approx 400 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once and I3C-diet (0.2%) for 12 weeks prior to AFB₁ injection; for detailed information please see the article), conc. range: \approx 53.7 μ M AFB₁ in bile* (mean value), country: USA²¹², *after 16 and 24 h post-injection (also measured after 5 and 10 h, lowest conc.: \approx 1.6 μ M AFB₁ in bile after 5 h)

incidence: 9?/9*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 µg

AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: ≈≤2.8 µM AFB, in bile** (mean value), country: USA²¹³, *control, **after 24 h post-injection (also measured after 5, 10 and 16 h, lowest conc.: ≈1.3 µM AFB, in bile after 5 h) incidence: 9?/9, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 100 ppm PCB for 2 month prior to 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: ≈≤5.8 μM AFB, in bile* (mean value), country: USA213, *after 16 h post-injection (also measured after 5, 10 and 24 h, lowest conc.: ≈4.5 µM AFB, in bile after 10 h)

incidence: ?/3*, sa. const.: Mt Shasta strain rainbow trouts, wt.: \approx 50 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB $_1$ (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: \approx 5.8 μ M AFB $_1$ in bile** (mean value), country: USA 260 , *control, **after 24 h (also measured after 5, 10 and 16 h, lowest conc.: \approx 1.3 μ M AFB $_1$ in bile after 5 h)

incidence: ?/3, sa. const.: Mt Shasta strain rainbow trouts, wt.: \approx 50 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once and BNF-diet (0.05%) for 12 weeks prior to AFB₁-injection; for detailed information please see the article), conc. range: \approx 5.6 μ M AFB₁ in bile* (mean value), country: USA²⁶⁰, *after 10 h (also measured after 5, 16 and 24 h, lowest conc.: \approx 4.5 μ M AFB₁ in bile after 5 h)

incidence: 2?/2*, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216-416 g, contamination: artificial (dose: $50 \mu g$ AFB $_1$ (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: $0.07 \mu M$ AFB $_1$ -SG** (mean value), country: USA 628 , *control, **after 24 h, compare with Fish, coho salmon bile AFB $_1$ no. 628

incidence: 2?/2, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216-416 g, contamination: artificial (dose: βNF-diet (500 ppm) for 3 weeks prior to 50 µg AFB, (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 0.02 µM AFB,-SG* (mean value), country: USA⁶²⁸, *after 24 h incidence: 2?/2, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216-416 g, contamination: artificial (dose: I3C-diet (2,000 ppm) for 3 weeks prior to 50 µg AFB, (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: 0.02 µM AFB,-SG* (mean value), country: USA628, *after 24 h incidence: 2?/2, sa. const.: Mt Shasta strain rainbow trouts, age: 16 months, wt.: 216-416 g, contamination: artificial (dose: PCB-diet (100 ppm) for 3 weeks prior to 50 µg AFB, (labeled)/kg fish, i.p., once; for detailed information please see the article), conc.: nd* **, country: USA628, *AFB,-SG, **after 24 h

Fish, rainbow trout blood may contain the following mycotoxins and/or their metabolites:

Aflatoxin B, incidence: 9?/9*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: ≈≤29 nM AFB, in blood** (mean value), country: USA²¹², *control, **after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈13.5 nM AFB, in blood after 24 h) incidence: 9?/9, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once and I3C-diet (0.2%) for 12 weeks prior to AFB, injection; for detailed information please see the article), conc.

range: $\approx \le 26.5$ nM AFB₁ in blood* (mean value), country: USA²¹², *after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈ 8 nM AFB₁ in blood after 24 h)

incidence: 9?/9*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 μ g AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc. range: \approx 29 nM AFB₁ in blood** (mean value), country: USA²¹³, *control, **after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: \approx 13.5 nM AFB₁ in blood after 24 h)

incidence: 9?/9, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 100 ppm PCB for 2 month prior to 2.47 μ g AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc. range: $\approx \le 34.5$ nM AFB₁ in blood* (mean value), country: USA²¹³, *after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈ 14.5 nM AFB₁ in blood after 24 h)

incidence: ?/9*, sa. const.: Mt Shasta strain rainbow trouts, wt.: ≈50 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: ≈≤29 nM AFB, in blood** (mean value), country: USA260, *control, after 5 h** (also measured after 10, 16 and 24 h, lowest conc.: ≈13 nM AFB, in blood after 16 and 24 h) incidence: ?/9, sa. const.: Mt Shasta strain rainbow trouts, wt.: ≈50 g, contamination: artificial (dose: 25 μl containing 0.32 μmol AFB, (labeled)/ml, i.p., once and BNF-diet (0.05%) for 12 weeks prior to AFB,injection; for detailed information please see the article), conc. range: ≈≤20 nM AFB, in blood* (mean value), country: USA²⁶⁰, after 5 h* (also measured after 10, 16 and 24 h, lowest conc.: ≈5.5 nM AFB, in blood after 24 h)

Fish, rainbow trout carcass may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 3?/3*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: ≈≤27 pmol AFB,/g carcass** (mean value), country: USA²¹², *control, **after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈16 pmol AFB,/g carcass after 24 h) incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once and I3C-diet (0.2%) for 12 weeks prior to AFB, injection; for detailed information please see the article), conc. range: ≈≤31 pmol AFB,/g carcass* (mean value), country: USA212, *after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈14 pmol AFB,/g carcass after 24 h)

incidence: 9?/9*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: ≈≤28 pmol AFB,/g carcass** (mean value), country: USA213, *control, **after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈17 pmol AFB,/g carcass after 24 h) incidence: 9?/9, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 100 ppm PCB for 2 month prior to 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: ≈≤30 pmol AFB₁/g carcass* (mean value), country: USA²¹³, *after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈13 pmol AFB,/g carcass after 24 h)

incidence: ?/3*, sa. const.: Mt Shasta strain rainbow trouts, wt.: ≈50 g,

contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: ≈≤28 pmol AFB,/g carcass** (mean value), country: USA260, *control, after 5 h** (also measured after 10, 16 and 24 h, lowest conc.: ≈17 pmol AFB,/g carcass after 24 h) incidence: ?/3, sa. const.: Mt Shasta strain rainbow trouts, wt.: ≈50 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once and BNF-diet (0.05%) for 12 weeks prior to AFB,-injection; for detailed information please see the article), conc. range: ≈≤23 pmol AFB,/g carcass* (mean value), country: USA²⁶⁰, after 5 h* (also measured after 10, 16 and 24 h. lowest conc.: ≈9.5 pmol AFB,/g carcass after 24 h)

Fish, rainbow trout egg may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: ?/72, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: $0.01-0.05 \mu g AFB_1 + AFL$ (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc.: 10.2 pmol AFL per part/nmol/ml bath solution* ** (mean value), country: USA384, *in shell, **immediately after exposure incidence: ?/36, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01–0.05 μg AFB, + AFL (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc.: 0.778 pmol AFL per part/nmol/ml bath solution* ** (mean value), country: USA384, *in shell, **after 24 h

incidence:?/72, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: $0.01-0.05~\mu g~AFB_1 + AFL$ (labeled)/ml solution, 1 h bath; for detailed information please see the

article), conc.: 11.7 pmol AFL per part/ nmol/ml bath solution* ** (mean value), country: USA³⁸⁴, *in yolk, **immediately after exposure

incidence:?/36, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01-0.05 μg AFB, + AFL (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc.: 5.33 pmol AFL per part/nmol/ml bath solution* ** (mean value), country: USA384, *in yolk, **after 24 h

AFLATOXIN B.

incidence: ?/?, sa. const.: Rainbow trout eggs, contamination: artificial (dose: 1.0 ppm AFB, (labeled), for 1 h; for detailed information please see the article), conc.: 2.7 ng/egg* (mean value), country: USA²²⁹, *absorbed during 1 h exposure

incidence: ?/72, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: $0.01-0.05 \mu g AFB_1 + AFL$ (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc.: 22.3 pmol AFB, per part/nmol/ml bath solution* ** (mean value), country: USA384, *in shell, **immediately after exposure incidence: ?/36, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01–0.05 μg AFB, + AFL (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc.: 0.503 pmol AFB, per part/nmol/ml bath solution* ** (mean value), country: USA384, *in shell,

**after 24 h

incidence:?/72, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01-0.05 μg AFB, + AFL (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc.: 5.32 pmol AFB, per part/nmol/ml bath solution* ** (mean value), country: USA384, *in yolk, **immediately after exposure

incidence:?/36, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: $0.01-0.05 \mu g AFB_1 + AFL$ (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc.: 1.84 pmol AFB, per part/nmol/ml bath solution* ** (mean value), country: USA384, *in yolk, **after 24 h

Fish, rainbow trout embryo contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: ?/72, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01–0.05 μg AFB₁ + AFL (labeled)/ ml solution, 1 h bath; for detailed information please see the article), conc.: 7.34 pmol AFL per part/nmol/ml bath solution* (mean value), country: USA384, *immediately after exposure

incidence: ?/36, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01-0.05 μg AFB, + AFL (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc.: 3.01 pmol AFL per part/nmol/ml bath solution* (mean value), country: USA384, *after 24 h

incidence: ?/72, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01–0.05 μg AFB, + AFL (labeled)/ ml solution, 1 h bath; for detailed information please see the article), conc.: 19.2 pmol AFL per part/nmol/ml bath solution* ** (mean value), country: USA³⁸⁴, *in embryo + yolk, ****immediately** after exposure

incidence: ?/36, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01–0.05 μg AFB₁ + AFL (labeled)/ ml solution, 1 h bath; for detailed information please see the article), conc.: 8.47 pmol AFL per part/nmol/ml bath solution* ** (mean value), country: USA³⁸⁴, *in embryo + yolk, **after 24 h

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: $0.01-0.05 \mu g AFB_1 + AFL$ (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc. range: $\approx \le 3.9 \mu G AFL/mg DNA^{**}$, country: USA³⁸⁴, *rainbow trout embryo DNA, **after 24 h, compare with Fish, rainbow trout embryo AFB₁, 5th statement of no.³⁸⁴

AFLATOXIN B,

incidence: ½/6, sa. const.: Shasta strain rainbow trout eggs/embryos, age: 21 days, contamination: artificial (dose: 0.5 µg AFB₁ (labeled)/ml, for 1 h; for detailed information please see the article), conc.: 1.38 pmol AFB₁/mg DNA* (mean value), country: USA¹¹¹5, *in embryos ≈48 h to hatching,

compare with Fish, coho salmon embryo AFB, no. 115

incidence: ?/?*, sa. const.: fertilized rainbow trout 21-day-old eggs, contamination: artificial (dose: 0.5 ppm AFB₁ (labeled) exposure of 21-day-old eggs for 1 h; for detailed information please see the article), conc. range: ≤8.4 × 10⁻⁷ mmol AFB₁/mmol DNA nucleotides** (mean value), country: USA²²⁹, *rainbow trout embryo DNA, **after 24 h

incidence: ?/72, sa. const.: Shasta strain

rainbow trouts, contamination: artificial (dose: 0.01–0.05 μg AFB₁ + AFL (labeled)/ ml solution, 1 h bath; for detailed information please see the article), conc.: 3.62 pmol AFB₁ per part/nmol/ml bath solution* (mean value), country: USA³⁸⁴, *immediately after exposure incidence: ?/36, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01–0.05 μg AFB₁ + AFL (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc.: 1.12 pmol AFB₁ per part/nmol/ml bath solution* (mean value), country: USA³⁸⁴, *after 24 h

incidence: ?/72, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01–0.05 µg AFB₁ + AFL (labeled)/ ml solution, 1 h bath; for detailed information please see the article), conc.: 9.09 pmol AFL per part/nmol/ml bath solution* ** (mean value), country: USA³⁸⁴, *in embryo + yolk, **immediately after exposure

incidence: ?/36, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 0.01–0.05 µg AFB₁ + AFL (labeled)/ml solution, 1 h bath; for detailed information please see the article), conc.: 3.05 pmol AFL per part/nmol/ml bath solution* ** (mean value), country: USA³⁸⁴, *in embryo + yolk, **after 24 h

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: $0.01-0.05~\mu g~AFB_1 + AFL$ (labeled)/ ml solution, 1 h bath; for detailed information please see the article), conc. range: $\approx \le 1.3~pmol~AFB_1/mg~DNA^{**}$, country: USA³⁸⁴, *rainbow trout embryo DNA, **after 24 h, compare with Fish, rainbow trout embryo AFL 5th statement of no.³⁸⁴

Fish, Rainbow Trout Embryo and Yolk see Fish, rainbow trout embryo

Fish, rainbow trout liver may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: \approx 400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB₁ (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: $13^{**}-34^{***}$ pmol/g liver (mean values), country: USA²¹², *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h) incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g,

contamination: artificial (dose: $25 \mu l$ containing $0.32 \mu mol AFB_1$ (labeled)/ml, i.p., once and I3C-diet (0.2%) for 12 weeks prior to AFB₁-injection; for detailed information please see the article), conc. range: 10^*-31^{**} pmol/g liver (mean values), country: USA²¹², after 24* and $5 h^{**}$ (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: 13**-34*** pmol/g liver (mean values), country: USA²¹³, *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h) incidence: ?/?, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 100 ppm PCB) for 2 months prior to 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: 6*-32** pmol/g liver (mean values), country: USA213, after 24* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: 6?/6, sa. const.: Shasta strain rainbow trouts, age: 3 months, contamination: artificial (dose: 164.5 pmol AF (labeled)/g diet, o., for 2 weeks; for detailed information please see the article), conc.: 3.57 pmol AFL/mg DNA* (mean value), country: USA²²⁸, *after 15 days (thereof 14 days with AF-administration)

incidence: 9?/9*, sa. const.: Shasta strain rainbow trouts, wt.: \approx 50 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: 13**-34*** pmol/g liver (mean values), country: USA²⁶⁰, *control, after 24** and 5 h***

(also measured after 10 and 16 h but values between values of 5 and 24 h) incidence: 9?/9, sa. const.: Shasta strain rainbow trouts, wt.: \approx 50 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once and BNF-diet (0.05%) for 12 weeks prior to AFB₁-injection; for detailed information please see the article), conc. range: 1*-12** pmol/g liver (mean values), country: USA²⁶⁰, after 24* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: ?/?, sa. const.: Shasta strain rainbow trouts, age: 2 months, \emptyset wt.: 1.5 g, contamination: no AFL; for detailed information please see the article), conc.: nr, country: USA³⁸⁴ incidence: ?/4 or 8, sa. const.: Shasta strain rainbow trouts, age: 2 months, \emptyset wt.: 1.5 g, contamination: artificial (dose: 12.4, 25, 50 and 75* ng AFL (labeled)/g dry wt. diet, for 2 weeks; for detailed information please see the article), conc. range: $\approx \le 6.0$ ** pmol AFB₁/mg DNA, country: USA³⁸⁴, **after 2 weeks

incidence: ?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: ≈66 g, contamination: artificial (dose: 0.00995 μg? AFL (labeled)/g b. wt., i.p., once; for detailed information please see the article), conc. range: ≤15.4 pmol/mg DNA*** (mean value), country: USA⁴⁰⁵, *after 2 days (also measured after 1, 4, and 7 days, lowest conc.: 14.3 pmol/mg DNA after 1 day), **[³H]AFL-conc.

incidence: 3?/3*, sa. const.: rainbow trouts, wt.: 5-6 g b. wt., contamination: artificial (dose: 80 ppb AFB₁ (labeled) in the diet for 2 days; for detailed information please see the article), conc.: ≈ 4.05 pmol AFL/g liver** (mean value), country: USA⁵⁴⁶, *control, **after AFB₁-administration incidence: 3?/3, sa. const.: rainbow trouts, wt.: 5-6 g b. wt., contamination: artificial (dose: pretreatment with CHL

(4,000 ppm) for 2 weeks then 80 ppb AFB, (labeled) + CHL (4,000 ppm) in the diet for 2 days; for detailed information please see the article), conc.: ≈2.3 pmol AFL/g liver* (mean value), country: USA546, *after AFB1- and CHL-administration incidence: 3?/3*, sa. const.: rainbow trouts, wt.: 5-6 g b. wt., contamination: artificial (dose: 80 ppb AFB, (labeled) in the diet for 2 days; for detailed information please see the article), conc.: ≈0.40 pmol AFL-g/g liver** (mean value), country: USA546, *control, **after AFB, -administration incidence: 3?/3, sa. const.: rainbow trouts, wt.: 5-6 g b. wt., contamination: artificial (dose: pretreatment with CHL (4,000 ppm) for 2 weeks then 80 ppb AFB, (labeled) + CHL (4,000 ppm) in the diet for 2 days; for detailed information please see the article), conc.: ≈0.45 pmol AFL-g/g liver* (mean value), country: USA546, *after AFB, - and CHL-administration

AFLATOXICOL M₁ incidence: 6?/6, sa. const.: Shasta strain rainbow trouts, age: 3 months, contamination: artificial (dose: 1,571 pmol AF (labeled)/g diet, o., for 2 weeks; for detailed information please see the article), conc.: 2.74 pmol AFLM₁/ mg DNA* (mean value), country: USA²²⁸, *after 15 days (thereof 14 days with AF-administration)

incidence: 3?/3*, sa. const.: rainbow trouts, weight: 5–6 g b. wt., contamination: artificial (dose: 80 ppb AFB₁ (labeled) in the diet for 2 days; for detailed information please see the article), conc.: ≈0.035 pmol AFLM₁/g liver** (mean value), country: USA⁵⁴⁶, *control, **after AFB₁-administration incidence: 3?/3, sa. const.: rainbow trouts, wt.: 5–6 g, contamination: artificial (dose: pretreatment with CHL (4,000 ppm) for 2 weeks then 80 ppb AFB₁ (labeled) + CHL (4,000 ppm) in the diet for 2 days; for detailed information please see the article), conc.: ≈0.027 pmol

AFLM₁/g liver* (mean value), country: USA⁵⁴⁶, *after AFB₁- and CHL-administration

incidence: 3?/3*, sa. const.: rainbow trouts, wt.: 5-6 g, contamination: artificial (80 ppb AFB, (labeled) in the diet for 2 days; for detailed information please see the article), conc.: ≈0.029 pmol AFLM,-g/g liver** (mean value), country: USA546, *control, **after AFB, -administration incidence: 3?/3, sa. const.: rainbow trouts, wt.: 5-6 g, contamination: artificial (dose: pretreatment with CHL (4,000 ppm) for 2 weeks then 80 ppb AFB, (labeled) + CHL (4,000 ppm) in the diet for 2 days; for detailed information please see the article), conc.: ≈0.017 pmol AFLM,-g/g liver* (mean value), country: USA546, *after AFB, - and CHL-administration

AFLATOXIN B₁

incidence: 1/1, sa. const.: Shasta strain rainbow trouts, wt.: 38.4 g, contamination: artificial (dose: 80 ppb AFB₁ (labeled), o., for 3 weeks), conc.: 29.0 pmol AFB₁/mg DNA*, country: USA¹¹⁵, *after 3 weeks, compare with Fish, coho salmon liver AFB₁, 1st statement of no.¹¹⁵

incidence: 3?/3, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 28.1 μ g AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 74.0 pmol AFB₁/mg DNA* **(mean value), country: USA¹¹⁵, *after 2 days, **AFB₁-N⁷-Gua³ adducts,

compare with Fish, coho salmon liver AFB₁, 2nd statement of no.¹¹⁵ incidence: ?/3 sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 28.1 µg AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 17.6 pmol AFB₁/mg DNA* **(mean value), country: USA¹¹⁵, *after 21 days, **AFB₁-N⁷-Gua³ adducts, compare with Fish, coho salmon liver AFB₁, 3rd statement of no.¹¹⁵

incidence: 3?/3, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 28.1 µg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 7.7 pmol AFB,/mg DNA* ** (mean value), country: USA115, *after 2 days, **AFB, -FAPyr adducts, compare with Fish, coho salmon liver AFB,, 4th statement of no.115 incidence: 3?/3, sa. const.: Shasta strain rainbow trouts, contamination; artificial (dose: 28.1 µg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 14.1 pmol AFB./ mg DNA* **(mean values), country: USA115, *after 21 days, **AFB, -FAPyr adducts,

compare with Fish, coho salmon liver AFB $_1$, 5th statement of no. 115 incidence: 3?/3, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 28.1 μ g AFB $_1$ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 5.8 pmol AFB $_1$ /mg DNA* **(mean value), country: USA 115 , *after 2 days, **AFB $_1$ -minor FAPyr isomer adducts,

compare with Fish, coho salmon liver AFB₁, 6th statement of no.¹¹⁵ incidence: 3?/3, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 28.1 µg AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 2.6 pmol AFB₁/mg DNA* **(mean value), country: USA¹¹⁵, *after 21 days, **AFB₁-minor FAPyr isomer adducts, compare with Fish, coho salmon liver

AFB₁, 7th statement of no.¹¹⁵

incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 13 months, wt.: 74 g, contamination: artificial (dose: 50 µg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 243.0 pmol AFB₁/mg DNA* (mean value), country: USA¹⁷⁷, *after 24 h, compare with Fish, coho salmon liver AFB₁ no.¹⁷⁷

incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 10 months, weight: ≈45 g, contamination: artificial (dose: 83 µg AFB₁ (labeled)/kg b. wt., once), conc. range: ≤263.0 pmol AFB₁ binding/mg DNA* (mean value), country: USA¹¹⁻, *after 24 h (also measured after 4, 12 and 48 h but lower residue values recorded), for overall information please see the article

incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: ≈53 g, contamination: artificial (dose: 5 µg AFB₁ (labeled)/kg b. wt., once), conc.: 9.23 pmol AFB₁ binding/mg DNA* (mean value), country: USA¹¹¬, *after 24 h (for overall information please see the article) incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: ≈53 g, contamination: artificial (dose: 25 µg AFB₁ (labeled)/kg b. wt., once), conc.: 55.6 pmol AFB₁ binding/mg DNA* (mean value), country: USA¹¬, *after 24 h (for overall information please see the article)

incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: ≈53 g, contamination: artificial (dose: 100 µg AFB₁ (labeled)/kg b. wt., once), conc.: 315 pmol AFB₁ binding/mg DNA* (mean value), country: USA¹¹७, *after 24 h (for overall information please see the article)

incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: ≈53 g, contamination: artificial (dose: 300 µg AFB₁ (labeled)/kg b. wt., once), conc.: 1,240 pmol AFB₁ binding/mg DNA* (mean value), country: USA¹¹⁻⊓, *after 24 h (for overall information please see the article)

incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: 58–71 g, contamination: artificial (dose: 40% semipurified protein diets (casein) for 5 months and afterwards 50 µg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.:

258 pmol AFB, binding/mg DNA* (mean value), country: USA177, *after 24 h incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: 58-71 g, contamination: artificial (dose: 50% semipurified protein diets (casein) for 5 months and afterwards 50 µg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 253 pmol AFB, binding/mg DNA* (mean value), country: USA177, *after 24 h incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: 58-71 g, contamination: artificial (dose: 60% semipurified protein diets (casein) for 5 months and afterwards 50 µg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 329 pmol AFB, binding/mg DNA* (mean value), country: USA177, *after 24 h incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: 58-71 g, contamination: artificial (dose: 70% semipurified protein diets (casein) for 5 months and afterwards 50 µg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 299 pmol AFB, binding/mg DNA* (mean value), country: USA177, *after 24 h incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: 58-71 g, contamination: artificial (dose: 40% semipurified protein diets (FPC) for 5 months and afterwards 50 μg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 228 pmol AFB, binding/ mg DNA* ** (mean value), country: USA177, *after 24 h incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: 58-71 g, contamination: artificial (dose: 50% semipurified protein diets (FPC) for 5 months and afterwards 50 μg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 190 pmol AFB, binding/mg DNA* ** (mean value), country: USA177, *after 24 h incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months,

wt.: 58-71 g, contamination: artificial (dose: 60% semipurified protein diets (FPC) for 5 months and afterwards 50 µg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 309 pmol AFB, binding/ mg DNA* ** (mean value), country: USA¹⁷⁷, *after 24 h incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: 58–71 g, contamination: artificial (dose: 70% semipurified protein diets (FPC) for 5 months and afterwards 50 μg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 189 pmol AFB, binding/mg DNA* ** (mean value), country: USA177, *after 24 h incidence: 3?/3*, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95-145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (40% casein diet); for detailed information please see the article), conc.: 2.72 nmol AFB,/g liver ** (mean value), country: USA¹⁷⁷, *control (compare with 40% casein and 100 ppm CPFA-treated trouts), **after 24 h incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (40% casein diet + 100 ppm CPFA); for detailed information please see the article), conc.: 2.47 nmol AFB₁/g liver* (mean value), country: USA177, *after 24 h incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (40% casein diet); for detailed information please see the article), conc.: 275.0 pmol AFB binding/mg DNA** (mean value), country: USA177, *control (compare with 40% casein and 100 ppm CPFA-treated trouts), **after 24 h incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95-145 g, contamination: artificial

(dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (40% casein diet + 100 ppm CPFA); for detailed information please see the article), conc.: 219.0 pmol AFB, binding/mg DNA* (mean value), country: USA177, *after 24 h incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (70% casein diet); for detailed information please see the article), conc.: 2.57 nmol AFB₁/g liver** (mean value), country: USA177, *control (compare with 70% casein and 100 ppm CPFA-treated trouts), **after 24 h incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (70% casein diet + 100 ppm CPFA); for detailed information please see the article), conc.: 2.78 nmol AFB,/g liver* ** (mean value), country: USA177, *after 24 h incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (70% casein diet); for detailed information please see the article), conc.: 283.0 pmol AFB, binding/mg DNA** (mean value), country: USA177, *control (compare with 70% casein and 100 ppm CPFA-treated trouts), **after 24 h incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95-145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (70% casein diet + 100 ppm CPFA); for detailed information please see the article), conc.: 246.0 pmol AFB, binding/mg DNA* (mean value), country: USA177, incidence: ?/?*, sa. const.: Mt. Shasta strain

rainbow trouts, age: 14 months, wt.:

95–145 g, contamination: artificial (dose:

protein source (40% FPC diet); for detailed information please see the article), conc.: 2.30 nmol AFB /g liver* ** (mean value), country: USA¹⁷⁷, *control (compare with 40% FPC and 100 ppm CPFA-treated trouts), **after 24 h incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (40% FPC diet + 100 ppm CPFA); for detailed information please see the article), conc.: 2.60 nmol AFB₁/g liver* (mean value), country: USA177, *after 24 h incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (40% FPC diet); for detailed information please see the article), conc.: 270.0 pmol AFB, binding/mg DNA* ** (mean value), country: USA177, *control (compare with 40% FPC and 100 ppm CPFA-treated trouts), **after 24 h incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (40% FPC diet + 100 ppm CPFA); for detailed information please see the article), conc.: 260.0 pmol AFB, binding/mg DNA* (mean value), country: USA177, *after 24 h incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (70% FPC diet); for detailed information please see the article), conc.: 1.83 nmol AFB₁/g liver* ** (mean value), country: USA¹⁷⁷, *control (compare with 70% FPC and 100 ppm CPFA-treated trouts), **after 24 h incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (70% FPC diet + 100 ppm

50 μg AFB, (labeled)/kg b. wt., i.p., once,

CPFA); for detailed information please see the article), conc.: 1.99 nmol AFB₁/g liver* (mean value), country: USA¹⁷⁷, *after 24 h incidence: ?/?*, sa. const.: Mt. Shasta stra

incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95-145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (70% FPC diet); for detailed information please see the article), conc.: 210.0 pmol AFB, binding/mg DNA* ** (mean value), country: USA177, *control (compare with 70% FPC and 100 ppm CPFA-treated trouts), **after 24 h incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 95–145 g, contamination: artificial (dose: 50 μg AFB, (labeled)/kg b. wt., i.p., once, protein source (70% FPC diet + 100 ppm CPFA); for detailed information please see the article), conc.: 189.0 pmol AFB, binding/mg DNA* ** *** (mean value),

country: USA177, *after 24 h incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 80–125 g, contamination: artificial (dose: fasted 4 days then 50 µg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 2.09 nmol AFB,/g liver** (mean value), country: USA¹⁷⁷, *control (compare with BNF-treated trouts), **after 24 h incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 80–125 g, contamination: artificial (dose: pretreatment with 100 mg BNF/kg b. wt., i.p., once afterwards 4 days fasting then 50 μg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 0.941 nmol AFB,/g liver* (mean value), country: USA177, *after 24 h incidence: ?/?*, sa. const.: Mt. Shasta strain

rainbow trouts, age: 14 months, wt.:

fasted 4 days then 50 µg AFB,

80–125 g, contamination: artificial (dose:

(labeled)/kg b. wt., i.p., once; for detailed

information please see the article), conc.:

162.0 pmol AFB, binding/mg DNA**

(mean value), country: USA¹⁷⁷, *control (compare with BNF-treated trouts), **after 24 h

incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, age: 14 months, wt.: 80–125 g, contamination: artificial (dose: pretreatment with 100 mg BNF/kg b. wt., i.p., once afterwards 4 days fasting then 50 μg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 96.6 pmol AFB₁ binding/mg DNA* (mean value), country: USA¹⁷⁷, *after 24 h

incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: 46**-139*** pmol/g liver (mean values), country: USA212, *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h) incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once and I3C-diet (0.2%) for 12 weeks prior to AFB, injection; for detailed information please see the article), conc. range: 33*-104** pmol/g liver (mean values), country: USA²¹², after 24* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: 3?/3*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: \approx 400 g, contamination: artificial (dose: $25 \mu l$ containing $0.32 \mu mol AFB_1$ (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: \approx 59.5 nmol AFB₁/g liver** (mean value), country: USA²¹², *control, **after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: \approx 6.1 nmol AFB₁/g liver after 24 h)

incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, wt.: \approx 400 g, contamination: artificial (dose: 25 μ l

containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once and I3C-diet (0.2%) for 12 weeks prior to AFB₁ injection; for detailed information please see the article), conc. range: $\approx \le 6.3$ nmol AFB₁/g liver* (mean value), country: USA²¹², *after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈ 3.8 nmol AFB₁/g liver after 24 h)

incidence: 3?/3*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: ≈≤29.5 nmol AFB,/g DNA** *** (mean value), country: USA²¹², *control, **after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈24 nmol AFB,/g DNA after 10 h), ***short-term binding of AFB, incidence: 3?/3, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 μl containing 0.32 μmol AFB, (labeled)/ml, i.p., once and I3C-diet (0.2%) for 12 weeks prior to AFB, injection; for detailed information please see the article), conc. range: ≈≤14 nmol AFB,/g DNA* ** (mean value), country: USA²¹², *after 16 h post-injection (also measured after 5, 10, and 24 h, lowest conc.: ≈10.5 nmol AFB,/g DNA after 5 h), **short-term binding of AFB,

incidence: 5-8?/5-8*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: \approx 400 g, contamination: artificial (dose: 2 days fasted then 0.1 µmol AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: \approx 582 nmol AFB₁/g DNA** *** (mean value), country: USA²¹², *control, **after 1 day post-injection (also measured after 2, 7 and 21 days, lowest conc.: \approx 17 nmol AFB₁/g DNA after 21 days), ***long-term binding of AFB₁

incidence: 5–8?/5–8, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 0.1 μmol AFB₁ (labeled)/kg b. wt., i.p., once and I3C-diet (0.2%) for 3 weeks and 2 days

fasted prior to AFB₁ injection; for detailed information please see the article), conc. range: $\approx \le 20$ nmol AFB₁/g DNA* ** (mean value), country: USA²¹², *after 1 day post-injection (also measured after 2, 7 and 21 days, lowest conc.: ≈ 9.5 nmol AFB₁/g DNA after 21 days), **long-term binding of AFB₁

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: 46**-139*** pmol/g liver (mean values), country: USA213, *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h) incidence: ?/?, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: PCB (100 ppm) for 2 month prior to 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: 33*-119** pmol/g liver (mean values), country: USA213, after 24* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h) incidence: 3?/3*, sa. const.: Shasta strain

incidence: 3?/3*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 µg AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc. range: 27.9**–30.0*** nmol AFB₁-derived adducts/g DNA** *** (mean values), country: USA²¹³, *control, after 24** and 5 h*** (also measured after 10 and 16 h but values below or between values of 5 and 24 h, lowest conc.: 23.9 nmol AFB₁-derived adducts/g DNA after 10 h), ***short-term AFB₁-DNA adducts

incidence: 3?/3, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: PCB (100 ppm) for 2 month prior to 2.47 µg AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc. range: 35.3*–36.3** nmol

AFB₁-derived adducts/g DNA*** (mean values), country: USA²¹³, after 5* and 24** h (also measured after 10 and 16 h but values below values of 5 and 24 h, lowest conc.: 30.8 nmol AFB₁-derived adducts/g DNA after 16 h), ***short-term AFB₁-DNA adducts

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.0 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: ≈≤36 nmol AFB₁/g hepatic DNA** *** (mean value), country: USA²¹³, *control, **after 1 day (also measured after 0.5, 2, 7 and 21 days, lowest conc.: ≈16 nmol AFB,/g hepatic DNA after 21 days), ***long-term AFB,-DNA adducts incidence: ?/?, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: PCB (100 ppm) for 3 month prior to 2.0 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: ≈≤25 nmol AFB₁/g hepatic DNA* ** (mean value), country: USA²¹³, *after 0.5 day (also measured after 1, 2, 7 and 21 days, lowest conc.: ≈9 nmol AFB,/g hepatic DNA after 21 days), **long-term AFB,-DNA adducts

incidence: 9?/9*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: ≈≤9.5 nmol AFB₁/g liver** (mean value), country: USA²¹³, *control, **after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈6.1 nmol AFB,/g liver after 24 h) incidence: 9?/9, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: PCB (100 ppm) for 2 month prior to 2.47 μg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: ≈≤11.3 nmol AFB₁/g liver* (mean value), country: USA213,

*after 5 h post-injection (also measured after 10, 16 and 24 h, lowest conc.: ≈6.8 nmol AFB,/g liver after 24 h)

incidence: 6?/6, sa. const.: Shasta strain rainbow trouts, age: 3 months, contamination: artificial (dose: 168.7 pmol AF (labeled)/g diet, o., for 2 weeks; for detailed information please see the article), conc.: 3.82 pmol AFB₁/mg DNA* (mean value), country: USA²²⁸, *after 15 days (thereof 14 days with AF-administration)

incidence: 9?/9*, sa. const.: Mt Shasta strain rainbow trouts, wt.: 50 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: 46**–139*** pmol AFB₁/g liver (mean values), country: USA²⁶⁰, *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: 9?/9, sa. const.: Mt Shasta strain rainbow trouts, wt.: 50 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once and BNF-diet (0.05%) for 12 weeks prior to AFB₁-injection; for detailed information please see the article), conc. range: 11*–90** pmol AFB₁/g liver (mean values), country: USA²⁶⁰, after 24* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: ?/3*, sa. const.: Mt Shasta strain rainbow trouts, wt.: \approx 50 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: \approx 59.5 nmol AFB₁/g liver** (mean value), country: USA²⁶⁰, *control, after 5 h** (also measured after 10, 16 and 24 h, lowest conc.: \approx 6.2 nmol AFB₁/g liver after 24 h) incidence: ?/3, sa. const.: Mt Shasta strain rainbow trouts, wt.: \approx 50 g, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p., once

and BNF-diet (0.05%) for 12 weeks prior to AFB,-injection; for detailed information please see the article), conc. range: ≈≤8 nmol AFB,/g liver* (mean value), country: USA260, after 5 h* (also measured after 10, 16 and 24 h, lowest conc.: ≈3.7 nmol AFB,/g liver after 24 h) incidence: ?/3*, sa. const.: Mt Shasta strain rainbow trouts, contamination: artificial (dose: 64 nmol AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤60 nmol AFB,/g hepatic DNA** (mean value), country: USA²⁶⁰, *control, **after 48 h (also measured after 6, 24 and 96 h, lowest conc.: ≈43 nmol AFB,/g hepatic DNA after 0.2 days) incidence: ?/3, sa. const.: Mt Shasta strain rainbow trouts, contamination: artificial (dose: 64 nmol AFB, (labeled), i.p., once and BNF-diet (0.5%) for 3 weeks prior to AFB, -injection, i.p., once; for detailed information please see the article), conc. range: ≈≤27 nmol AFB,/g hepatic DNA* (mean value), country: USA260, **after 24 h (also measured after 6, 48 and 96 h, lowest conc.: ≈20 nmol AFB,/g hepatic DNA after 2 days)

incidence: 6?/6*, sa. const.: Mt Shasta strain rainbow trouts, contamination: artificial (dose: 180 nmol AFB₁ (labeled), i.p., once; for detailed information please see the article), conc. range: $\approx \le 145$ nmol AFB₁/g hepatic DNA** (mean value), country: USA²⁶⁰, *control, **after 1 day (also measured after 0.5, 2 and 7 days, lowest conc.: ≈ 75 nmol AFB₁/g hepatic DNA after 7 days)

incidence: 6?/6, sa. const.: Mt Shasta strain rainbow trouts, contamination: artificial (dose: 180 nmol AFB₁ (labeled), i.p., once and **BHA-diet (0.3%)** for 3 weeks prior to AFB₁-injection; for detailed information please see the article), conc. range: $\approx \le 195$ nmol AFB₁/g hepatic DNA* (mean value), country: USA²⁶⁰, *after 0.5 days (also measured after 1, 2 and 7 days, lowest conc.: ≈ 85 nmol AFB₁/g hepatic DNA after 7 days)

incidence: ?/3*, sa. const.: fingerling rainbow trouts, contamination: artificial (dose: 0 ppm I3C in the diet for 6 weeks + 10, 20, 40 or 80** ppb AFB, (labeled and unlabeled) in the diet for the last 2 weeks; for detailed information please see the article), conc. range: ≈≤840** pg AFB₁/mg DNA*** (mean value), country: USA313, *control, ***after 7 days of AFB,-administration incidence: ?/3, sa. const.: fingerling rainbow trouts, contamination: artificial (dose: I3C (1,000 ppm) in the diet for 6 weeks + 10, 20, 40 or 80* ppb AFB, (labeled and unlabeled) in the diet for the last 2 weeks; for detailed information please see the article), conc. range: ≈≤490* pg AFB,/mg DNA** (mean value), country: USA313, **after 7 days of AFB, -administration incidence: ?/3, sa. const.: fingerling rainbow trouts, contamination: artificial (dose: I3C (2,000 ppm) in the diet for 6 weeks + 20, 40, 80 or 160* ppb AFB, (labeled and unlabeled) in the diet for the last 2 weeks; for detailed information please see the article), conc. range: ≈≤310* pg AFB₁/mg DNA** (mean value), country: USA313, **after 7 days of AFB,-administration incidence: ?/3, sa. const.: fingerling rainbow trouts, contamination: artificial (dose: I3C (3,000 ppm) in the diet for 6 weeks + 20, 40, 80 or 160* ppb AFB, (labeled and unlabeled) in the diet for the last 2 weeks; for detailed information please see the article), conc. range: ≈≤180* pg AFB₁/mg DNA** (mean value), country: USA313, **after 7 days of AFB,-administration incidence: ?/3, sa. const.: fingerling rainbow trouts, contamination: artificial (dose: I3C (4,000 ppm) in the diet for 6 weeks + 40, 80, 160 or 320* ppb AFB, (labeled and unlabeled) in the diet for the last 2 weeks; for detailed information please see the article), conc. range: ≈≤215* pg AFB₁/mg DNA** (mean value), country: USA313, **after 7 days of AFB,administration

incidence: ?/3*, sa. const.: fingerling rainbow trouts, contamination: artificial (dose: 0 ppm I3C) in the diet for 6 weeks + 10, 20, 40 or 80** ppb AFB. (labeled and unlabeled) in the diet for the last 2 weeks; for detailed information please see the article), conc. range: ≈≤1,750** pg AFB,/mg DNA*** (mean value), country: USA313, *control, ***after 14 days of AFB, -administration incidence: ?/3, sa. const.: fingerling rainbow trouts, contamination: artificial (dose: I3C (1,000 ppm) in the diet for 6 weeks + 10. 20, 40 or 80* ppb AFB, (labeled and unlabeled) in the diet for the last 2 weeks; for detailed information please see the article), conc. range: ≈≤750* pg AFB,/mg DNA** (mean value), country: USA313, **after 14 days of AFB,-administration incidence: ?/3, sa. const.: fingerling rainbow trouts, contamination: artificial (dose: I3C (2,000 ppm) in the diet for 6 weeks + 20, 40, 80* or 160 ppb AFB, (labeled and unlabeled) in the diet for the last 2 weeks; for detailed information please see the article); for detailed information please see the article), conc. range: ≈≤300* pg AFB,/mg DNA** (mean value), country: USA313, **after 14 days of AFB,-administration incidence: ?/3, sa. const.: fingerling rainbow trouts, contamination: artificial (dose: I3C (3,000 ppm) in the diet for 6 weeks + 20, 40, 80 or 160* ppb AFB, (labeled and unlabeled) in the diet for the last 2 weeks; for detailed information please see the article); for detailed information please see the article), conc. range: ≈≤430* pg AFB,/mg DNA** (mean value), country: USA313, **after 14 days of AFB, -administration incidence: ?/3, sa. const.: fingerling rainbow trouts, contamination: artificial (dose: I3C (4,000 ppm) in the diet for 6 weeks + 40, 80, 160 or 320* ppb AFB, (labeled and unlabeled) in the diet for the last 2 weeks; for detailed information please see the article); for detailed information please see the article), conc.

range: ≈≤450* pg AFB₁/mg DNA** (mean value), country: USA³¹³, **after 14 days of AFB₁-administration

incidence: ?/?, sa. const.: Shasta strain rainbow trouts, age: 2 months, Ø wt.:
1.5 g, contamination: no AFB₁; for detailed information please see the article), conc.: nr, country: USA³84 incidence: ?/4 or 8, sa. const.: Shasta strain rainbow trouts, age: 2 months, Ø wt.:
1.5 g, contamination: artificial (dose: 12.4, 25, 50 and 75* ng AFB₁ (labeled)/g dry weight diet, for 2 weeks; for detailed information please see the article), conc. range: ≈≤5.8* pmol AFB₁/mg DNA**, country: USA³84, **after 2 weeks

incidence: ?/3, sa. const.: Mt. Shasta strain rainbow trouts, age: 11 months, wt.: ≈66 g, contamination: artificial (dose: 0.675 µg? AFB₁ (labeled)/g b. wt., i.p., once; for detailed information please see the article), conc. range: ≤40.4 pmol/mg DNA*** (mean value), country: USA⁴05, *after 2 days (also measured after 1, 4, and 7 days, lowest conc.: 31.4 pmol/mg DNA after 1 day), **[³H]AFB,-conc.

incidence: ?/?*, sa. const.: fingerling rainbow trouts (9,490), wt.: 1.5-2.0 g, contamination: artificial (dose: 10, 20, 40, 80 or 160** ppb AFB, (labeled and unlabeled) and no CHL for 2 weeks; for detailed information please see the article), conc. range: ≈≤28 µmol AFB./ mole DNA** *** (mean value), country: USA536, *control, ***after 2 weeks incidence: ?/?, sa. const.: fingerling rainbow trouts (9,490), wt.: 1.5-2.0 g, contamination: artificial (dose: 10, 20, 40 or 80* ppb AFB, (labeled and unlabeled) and CHL (500 ppm) added to the diet for 2 weeks; for detailed information please see the article), conc. range: ≈≤10.8 μmol AFB₁/mole DNA* ** (mean value), country: USA536, **after 2 weeks incidence: ?/?, sa. const.: fingerling rainbow trouts (9,490), wt.: 1.5-2.0 g, contamination: artificial (dose: 10, 20, 40,

80 or 160* ppb AFB, (labeled and unlabeled) and CHL (2,000 ppm) added to the diet for 2 weeks; for detailed information please see the article), conc. range: ≈≤19.5* µmol AFB,/mole DNA** (mean value), country: USA536, **after 2 weeks incidence: ?/?, sa. const.: fingerling rainbow trouts (9,490), wt.: 1.5-2.0 g, contamination: artificial (dose: 10, 20, 40, 80 or 160* ppb AFB, (labeled and unlabeled) and CHL (4,000 ppm) added to the diet for 2 weeks; for detailed information please see the article), conc. range: ≈≤17.5 * µmol AFB,/ mole DNA** (mean value), country: USA536, **after 2 weeks

incidence: 3?/3*, sa. const.: rainbow trouts, wt.: 5-6 g, contamination: artificial (dose: 80 ppb AFB, (labeled) in the diet for 2 days; for detailed information please see the article), conc.: ≈2.25 pmol AFB,/g liver** (mean value), country: USA546, *control, **after AFB, -administration incidence: 3?/3, sa. const.: rainbow trouts, weight: 5-6 g, contamination: artificial (dose: pretreatment CHL (4,000 ppm) for 2 weeks then 80 ppb AFB, (labeled) + CHL (4,000 ppm) in the diet for another 2 days; for detailed information please see the article), conc.: ≈1.25 pmol AFB₁/g liver* (mean value), country: USA546, *after AFB1- and CHL-administration

incidence: 5/5, sa. const.: fingerling fishes (rainbow trout), wt.: ≈ 0.7 g, contamination: neither AFB,- nor CHL-treatment (for detailed information please see the article), conc.: nd, country: USA546 incidence: 5/5, sa. const.: fingerling fishes (rainbow trout), wt.: ≈ 0.7 g b. wt., contamination: artificial (dose: CHL (500 ppm) for 30 min, no pre- and posttreatment; for detailed information please see the article), conc.: nd, country: USA546 incidence: 5?/5, sa. const.: fingerling fishes (rainbow trout), wt.: ≈0.7 g, contamination: artificial (dose:

pretreatment CHL (4,000 ppm) for 7 days then bath treatment: 0.1 ppm AFB, (labeled in part) + CHL (500 ppm) for 30 min, posttreatment: 4,000 ppm CHL for another 2 days; for detailed information please see the article), conc.: 7.9 pg AFB,/mg DNA* ** (mean value), country: USA546, *AFB,-DNA adducts, **within 1 h after bath incidence: 5?/5, sa. const.: fingerling fishes (rainbow trout), wt.: ≈ 0.7 g, contamination: artificial (dose: bath treatment: 0.1 ppm AFB, (labeled in part) + CHL (500 ppm) for 30 min, no pre- and posttreatment; for detailed information please see the article), conc.: 7.7 pg AFB,/mg DNA* ** (mean value), country: USA546, *AFB,-DNA adducts, **within 1 h after bath treatment incidence: 5?/5, sa. const.: fingerling fishes (rainbow trout), wt.: ≈ 0.7 g, contamination: artificial (dose: pretreatment CHL (4,000 ppm) for 7 days then bath treatment: 0.1 ppm AFB, (labeled in part) for 30 min, posttreatment: CHL (4,000 ppm) for another 2 days; for detailed information please see the article), conc.: 211 pg AFB₁/mg DNA* ** (mean value), country: USA546, *AFB1-DNA adducts, **within 1 h after bath treatment incidence: 5?/5, sa. const.: fingerling fishes (rainbow trout), wt.: ≈ 0.7 g, contamination: artificial (dose: bath treatment: 0.1 ppm AFB, (labeled in part) for 30 min, no pre- and posttreatment; for detailed information please see the article), conc.: 194 pg AFB₁/mg DNA* ** (mean value), country: USA546, *AFB,-DNA adducts, **within 1 h after bath treatment

incidence: ?/5*, sa. const.: fingerling trouts, age: 3–5 months, wt.: 8–12 g, contamination: artificial (dose: no pretreatment with BNF (0.2–10 ppm) for 7 days, on 8th day 10 μ g AFB₁ (labeled)/kg, i.p. injection, once; for detailed information please see the

article), conc.: ≈7.1 pmol AFB₁/mg DNA** (mean value), country: USA⁵⁵⁸, *control, **after 24 h

incidence: ?/5, sa. const.: fingerling trouts, age: 3–5 months, wt.: 8–12 g, contamination: artificial (dose: pretreatment with 0.2, 0.5, 1.0, 2.0, 5.0* or 10 ppm BNF for 7 days, on 8th day 10 μg AFB₁ (labeled)/kg, i.p. injection, once; for detailed information please see the article), conc.: ≈2.4 pmol AFB₁/mg DNA*
** (mean value), country: USA⁵⁵⁸, **lowest value of all treatments after 24 h (also all other BNF-treatment values lower than the control)

incidence: ?/7*, sa. const.: fingerling trouts, age: 3–5 months, wt.: 3–4 g, contamination: artificial (dose: no pretreatment with BNF (10–200 ppm) for 7 days, on 8th day 10 μ g AFB₁ (labeled)/kg, i.p. injection, once; for detailed information please see the article), conc.: ≈9.0 pmol AFB₁/mg DNA** (mean value), country: USA⁵⁵⁸, *control, **after 24 h

incidence: ?/7, sa. const.: fingerling trouts, age: 3–5 months, wt.: 3–4 g, contamination: artificial (dose: pretreatment with 10, 20, 50, 100 or 200* ppm BNF for 7 days, on 8th day 10 μg AFB₁ (labeled)/kg, i.p. injection, once; for detailed information please see the article), conc.: ≈3.7 pmol AFB₁/mg DNA* ** (mean value), country: USA⁵⁵⁸, **lowest value of all treatments after 24 h (also all other BNF-treatment values lower than the control)

incidence: ?/7*, sa. const.: fingerling trouts, age: 3–5 months, wt.: 8–12 g, contamination: artificial (dose: no pretreatment with BNF (100–700 ppm) for 7 days, on 8th day 10 μ g AFB₁ (labeled)/kg, i.p. injection, once; for detailed information please see the article), conc.: ≈19.8 pmol AFB₁/mg DNA** (mean value), country: USA⁵⁵⁸, *control, **after 24 h incidence: ?/7, sa. const.: fingerling trouts, age: 3–5 months, wt.: 8–12 g,

contamination: artificial (dose: **pretreatment** with 100, 200, 300, 500 or **700* ppm BNF** for 7 days, on 8th day 10 μg AFB₁ (labeled)/kg, i.p. injection, once; for detailed information please see the article), conc.: ≈3.9 pmol AFB₁/mg DNA* ** (mean value), country: USA⁵⁵⁸, **lowest value of all treatments after 24 h (also all other BNF-treatment values lower than the control)

incidence: ?/5*, sa. const.: fingerling trouts, wt.: 1-2 g, contamination: artificial (dose: 20 ppb AFB₁ (labeled) in the diet for 1, 3, 5 or 7 days and no CHL; for detailed information please see the article), conc. range: $\approx \le 685$ pg AFB₁/mg DNA** (mean value), country: USA⁵⁶⁰, *control (AFB₁ administered up to 7 days), **after 7 days of feeding AFB₁ (also measured after 1, 3 and 5 days)

incidence: ?/5, sa. const.: fingerling trouts, wt.: 1–2 g, contamination: artificial (dose: 20 ppb AFB₁ (labeled) in the diet for 1, 3, 5 or 7 days and CHL (500 ppm) co-administered to AFB₁; for detailed information please see the article), conc.: ≈≤475 pg AFB₁/mg DNA* (mean value), country: USA⁵⁶⁰, *after 7 days of feeding AFB₁ and CHL (also measured after 1, 3 and 5 days)

incidence: ?/5, sa. const.: fingerling trouts, wt.: 1–2 g, contamination: artificial (dose: 20 ppb AFB₁ (labeled) in the diet for 1, 3, 5 or 7 days and CHL (1,000 ppm) co-administered to AFB₁; for detailed information please see the article), conc.: ≈≤340 pg AFB₁/mg DNA* (mean value), country: USA⁵⁶⁰, *after 7 days of feeding AFB₁ and CHL (also measured after 1, 3 and 5 days)

incidence: ?/5, sa. const.: fingerling trouts, wt.: 1–2 g, contamination: artificial (dose: 20 ppb AFB₁ (labeled) in the diet for 1, 3, 5 or 7 days and CHL (2,000 ppm) co-administered to AFB₁; for detailed information please see the article), conc.: ≈≤200 pg AFB₁/mg DNA* (mean value), country: USA⁵⁶⁰, *after 7 days of

feeding AFB₁ and CHL (also measured after 1, 3 and 5 days)

AFLATOXIN M, incidence: ?/?*, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: 0**-4*** pmol/g liver (mean value), country: USA212, *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h) incidence: ?/?, sa. const.: Mt. Shasta strain rainbow trouts, wt.: ≈400 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once and I3C (0.2%) diet for 12 weeks prior to AFB, injection; for detailed information please see the article), conc. range: 1*-4** pmol/g liver (mean value), country: USA212, after 24* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: 0**-4*** pmol/g liver (mean values), country: USA213, *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h) incidence: ?/?, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 100 ppm PCB for 2 month prior to 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: 2*-21** pmol/g liver (mean values), country: USA213, after 24* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: 6?/6, sa. const.: Shasta strain rainbow trouts, age: 3 months,

contamination: artificial (dose: 2,442 pmol AF (labeled)/g diet, o., for 2 weeks; for detailed information please see the article), conc.: 8.07 pmol AFM,/mg DNA* (mean value), country: USA²²⁸, *after 15 days (thereof 14 days with AF-administration) incidence: 6?/6, sa. const.: Shasta strain rainbow trouts, age: 3 months, contamination: artificial (dose: 812.6 pmol AF (labeled)/g diet, o., for 2 weeks; for detailed information please see the article), conc.: 3.16 pmol AFM,/mg DNA* (mean value), country: USA²²⁸, *after 15 days (thereof 14 days with AF-administration)

incidence: 9?/9*, sa. const.: Mt Shasta strain rainbow trouts, wt.: ≈50 g, contamination: artificial (dose: 25 μl containing 0.32 μmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: 0**-4*** pmol AFM,/g liver (mean values), country: USA260, *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h) incidence: 9?/9, sa. const.: Mt Shasta strain rainbow trouts, wt.: ≈50 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once and BNF-diet (0.05%) for 12 weeks prior to AFB,-injection; for detailed information please see the article), conc. range: 1*-16** pmol AFM,/g liver (mean values), country: USA²⁶⁰, after 24 h* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: 3?/3*, sa. const.: rainbow trouts, wt.: 5–6 g b. wt., contamination: artificial (dose: 80 ppb AFB₁ (labeled) in the diet for another 2 days; for detailed information please see the article), conc. range: ≈0.034 pmol AFM₁/g liver **(mean value), country: USA⁵⁴⁶, *control, *after AFB₁-administration incidence: 3?/3, sa. const.: rainbow trouts, wt.: 5–6 g b. wt., contamination: artificial

(dose: pretreatment CHL (4,000 ppm) for 2 weeks then 80 ppb AFB₁ (labeled) + CHL (4,000 ppm) in the diet for another 2 days; for detailed information please see the article), conc. range: ≈0.017 pmol AFM₁/g liver* (mean value), country: USA⁵⁴⁶, *after AFB₁- and CHL-administration

Fish, rainbow trout plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: ?/36*, sa. const.: Mt Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p. injection; for detailed information please see the article), conc. range: 0.2**-2.2*** nM in plasma (mean values), country: USA212, *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h) incidence: ?/36, sa. const.: Mt Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: I3C-diet (0.2%) for 12 weeks prior to 25 μl containing 0.32 µmol AFB, (labeled)/ml, i.p. injection; for detailed information please see the article), conc. range: 0.1*-1.6** nM in plasma (mean values), country: USA212, after 24* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 2. 47 µg AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc.: 2.2 nmol** in plasma (mean value), country: USA²¹³, *control, **5 h post-injection incidence: ?/?, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 100 ppm PCB for 2 months prior to 2.47 µg AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc.: 1.8 nmol* in plasma

(mean value), country: USA²¹³, *5 h post-injection

AFLATOXIN B,

incidence: ?/36*, sa. const.: Mt Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 25 μ l containing 0.32 μ mol AFB₁ (labeled)/ml, i.p. Injection, once; for detailed information please see the article), conc. range: 3.8**–19.7*** nM AFB₁ in plasma (mean values), country: USA²¹², *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: ?/36, sa. const.: Mt Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: **I3C-diet** (0.2%) for 12 weeks prior to 25 μl containing 0.32 μmol AFB₁ (labeled)/ml, i.p. injection, once; for detailed information please see the article), conc. range: 2.7*–16.9** nM AFB₁ in plasma (mean values), country: USA²¹², after 24* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 2.47 μg AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc.: 19.7 nmol** in plasma (mean value), country: USA²¹³, *control, **5 h post-injection incidence: ?/?, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: PCB (100 ppm) for 2 month prior to 2.47 μg AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc.: 11.0 nmol* in plasma (mean value), country: USA²¹³, *5 h post-injection

incidence: ?/?*, sa. const.: Mt Shasta strain rainbow trouts, wt.: ≈50 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB₁ (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: 3.8**-19.7*** nM

AFB₁ in plasma**** (mean values), country: USA²⁶⁰, *control, after 24** and 5 h*** (also measured after 10 and 16 h but values between values of 5 and 24 h), ****values represent unmetabolized AFB₁ only

incidence: ?/?, sa. const.: Mt Shasta strain rainbow trouts, wt.: \approx 50 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB₁ (labeled)/ml, i.p., once and BNF-diet (0.05%) for 12 weeks prior to AFB₁-injection; for detailed information please see the article), conc. range: $0.6^*-5.2^{**}$ nM AFB₁ in plasma***(mean values), country: USA²60, after 24* and 5 h** (also measured after 10 and 16 h but values between values of 5 and 24 h), ***values represent unmetabolized AFB₁ only

AFLATOXIN M, incidence: ?/36*, sa. const.: Mt Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p. injection, once; for detailed information please see the article), conc. range: 0.6**-1.0*** nM in plasma (mean values), country: USA212, *control, after 5** and 24 h*** (also measured after 10 and 16 h but values between or higher values of 5 and 24 h, highest conc.: 1.1 nM in plasma after 16 h) incidence: ?/36, sa. const.: Mt Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: I3C-diet (0.2%) for 12 weeks prior to 25 μl containing 0.32 µmol AFB, (labeled)/ml, i.p. injection, once; for detailed information please see the article), conc. range: 0.2*-4.2** nM in plasma (mean values), country: USA212, after 24* and 5 h** (also measured after 10 and 16 h

incidence: ?/?*, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: 2.47 µg AFB₁ (labeled), i.p. injection, once; for detailed information

but values between values of 5 and 24 h)

please see the article), conc.: 0.6 nmol** in plasma (mean value), country: USA²¹³, *control, **5 h post-injection incidence: ?/?, sa. const.: Shasta strain rainbow trouts, contamination: artificial (dose: **100 ppm PCB** for 2 month prior to 2.47 μg AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc.: 6.1 nmol* in plasma (mean value), country: USA²¹³, *5 h post-injection

Fish, rainbow trout red blood

cells may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: ?/36*, sa. const.: Mt Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p. injection, once; for detailed information please see the article), conc. range: 0.705**-0.910*** nmol AFB,/g RBC DNA (mean values), country: USA²¹², *control, after 5 h** and 24 h*** (also measured after 10 and 16 h but values below values of 5 and 24 h, lowest conc.: 0.679 nmol AFB₁/g RBC DNA after 16 h) incidence: ?/36, sa. const.: Mt Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: I3C-diet (0.2%) for 12 weeks prior to 25 μl containing 0.32 µmol AFB, (labeled)/ml, i.p. injection, once; for detailed information please see the article), conc. range: 0.247*-0.481** nmol AFB₁/g RBC DNA** (mean values), country: USA²¹², after 5* and 24 h** (also measured after 10 and 16 h but values between values of 5 and 24 h)

incidence: 1/1*, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: 2.47 µg AFB₁ (labeled), i.p. injection, once; for detailed information please see the article), conc. range: 0.708**-0.908*** nmol

AFB,-derived adducts/g DNA**** (mean values), country: USA213, *control, after 5** and 24*** h (also measured after 10 and 16 h but values below values of 5 and 24 h, lowest conc.: 0.682 nmol AFB,derived adducts/g DNA after 16 h), ****short-term AFB,-DNA adducts incidence: 1/1, sa. const.: Shasta strain rainbow trouts, age: 9 months, contamination: artificial (dose: PCB (100 ppm) for 2 month prior to 2.47 µg AFB, (labeled), i.p. injection, once; for detailed information please see the article), conc. range: 0.641*-0.895** nmol AFB,-derived adducts/g DNA*** (mean values), country: USA213, after 5* and 24** h (also measured after 10 and 16 h but values between and below values of 5 and 24 h, lowest conc.: 0.632 nmol AFB, -derived adducts/g DNA after 16 h), ***short-term AFB,-DNA adducts

incidence: ?/?*, sa. const.: Mt Shasta strain

rainbow trouts, wt.: ≈50 g, contamination:

artificial (dose: 25 µl containing

0.32 µmol AFB, (labeled)/ml, i.p., once; for detailed information please see the article), conc. range: 0.705**-0.910*** nM AFB,/g RBC DNA**** (mean values), country: USA260, *control, after 5** and 24 h*** (also measured after 10 and 16 h but values below values of 5 and 24 h), ****total AFB, and metabolites bound to DNA incidence: ?/?, sa. const.: Mt Shasta strain rainbow trouts, wt.: ≈50 g, contamination: artificial (dose: 25 µl containing 0.32 µmol AFB, (labeled)/ml, i.p., once and BNF-diet (0.05%) for 12 weeks prior to AFB,-injection; for detailed information please see the article), conc. range: 0.352*-0.515** nM AFB₁/g RBC DNA**** (mean values), country: USA260, after 24* and 5 h** (also measured after

Fish, Rainbow Trout Shell see Fish, rainbow trout egg

10 and 16 h but values between values of

5 and 24 h), ****total AFB, and

metabolites bound to DNA

Fish, Rainbow Trout Yolk see Fish, rainbow trout egg

Fish, Walleye Fish

Fish, walleye fish muscle may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 12/12*, sa. const.: walleyes, length: 290 mm, contamination: no AF, conc.: nd, country: USA⁹⁴, *control, for overall information please see the article incidence: ?/6, sa. const.: walleyes, length: 290 mm, contamination: artificial (dose: **50 ppb AF**, o., for 30 days), conc.: 5 ppb* (mean value), country: USA⁹⁴, *after 30 days (for overall information please see the article)

incidence: ?/6, sa. const.: walleyes, length: 290 mm, contamination: artificial (dose: **100 ppb AF**, o., for 30 days), conc.: 10 ppb* (mean value), country: USA⁹⁴, *after 30 days (for overall information please see the article)

AFLATOXIN G,

incidence: 12/12*, sa. const.: walleyes, length: 290 mm, contamination: no AF, conc.: nd, country: USA⁹⁴, *control, for overall information please see the article incidence: ?/6, sa. const.: walleyes, length: 290 mm, contamination: artificial (dose: 50 ppb AF, o., for 30 days), conc.: 15 ppb* (mean value), country: USA⁹⁴, *after 30 days (for overall information please see the article)

incidence: ?/6, sa. const.: walleyes, length: 290 mm, contamination: artificial (dose: **100 ppb AF**, o., for 30 days), conc.: 20 ppb* (mean value), country: USA⁹⁴, *after 30 days (for overall information please see the article)

AFLATOXIN G,

incidence: 12/12*, sa. const.: walleyes, length: 290 mm, contamination: no AF, conc.: nd, country: USA⁹⁴, *control, for overall information please see the article

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incidence: ?/6, sa. const.: walleyes, length: 290 mm, contamination: artificial (dose: 50 ppb AF, o., for 30 days), conc.: 15 ppb* (mean value), country: USA⁹⁴, *after 30 days (for overall information please see the article) incidence: ?/6, sa. const.: walleyes, length: 290 mm, contamination: artificial (dose: 100 ppb AF, o., for 30 days), conc.: 20 ppb* (mean value), country: USA⁹⁴, *after 30 days (for overall information please see the article)

Fish, Zebrafish

Fish, zebrafish liver may contain the following mycotoxins and/or their metabolites:

incidence: 3/3*, sa. const.: female zebrafishes,

AFLATOXIN B₁

age: adult, wt.: 0.5 g, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA626, *control incidence: 3?/3, sa. const.: female zebrafishes, age: adult, wt.: 0.5 g, contamination: artificial (dose: 50, 100, 200 or 400* μg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: ≈≤235 pmol AFB,/mg DNA* ** (mean value), country: USA⁶²⁶, **after 24 h incidence: 3?/3*, sa. const.: male zebrafishes, age: adult, wt.: 0.5 g, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA626, *control incidence: 3?/3, sa. const.: male zebrafishes, age: adult, wt.: 0.5 g, contamination: artificial (dose: 50, 100, 200 or 400* µg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please

incidence: 3?/3, sa. const.: **female** zebrafishes, age: adult, wt.: 0.5 g, contamination: artificial (dose: 400 µg AFB, (labeled)/kg b. wt., i.p., once; for

USA⁶²⁶, **after 24 h

see the article), conc. range: ≈≤145 pmol

AFB,/mg DNA* ** (mean value), country:

detailed information please see the article), conc. range: ≈≤400 pmol AFB,/mg DNA* (mean value), country: USA⁶²⁶, *after 7 days (also measured after 1, 2, 4, 14 and 21 days, lowest conc.: 240 pmol AFB,/mg DNA after 4 days) incidence: 3?/3, sa. const.: male zebrafishes, age: adult, wt.: 0.5 g, contamination: artificial (dose: 400 µg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: ≈≤230 pmol AFB₁/mg DNA* ** (mean value), country: USA626, *after 7 days (also measured after 1, 2, 4, 14 and 21 days, lowest conc.: 75 pmol AFB₁/mg DNA after 1 day)

Fowlsee Turkey

Goat

Goat Natural Contamination

Goat milk, raw may contain the following mycotoxins and/or their metabolites:

Aflatoxin $\mathbf{M}_{_{1}}$

incidence: 4/10*, sa. const.: milk from goats of Greece, contamination: natural, conc. range: 11–20 ng/l (2 sa), 21–50 ng/l (2 sa), country: Greece²⁴⁶, *from December 1999 to May 2000 incidence: 8/12*, milk from goats of Greece, contamination: natural, conc. range: 5–10 ng/l (7 sa), 11–20 ng/l (1 sa), country: Greece²⁴⁶, *from December 2000 to May 2001

Goat urine may contain the following mycotoxins and/or their metabolites:

ZEARALANOLS

incidence: 9/27*, sa. const.: urine from goats of New Zealand, contamination: natural, conc. range: ≤0.56 ng/ml**, country: New Zealand²³⁰, *export animals, **most probable of *Fusarium* origin

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ZEARALENOLS

incidence: 9/27*, sa. const.: urine from goats of New Zealand, contamination: natural, conc. range: ≤19 ng/ml, country: New Zealand²³⁰, *export animals

Goat Artificial Contamination

Goat lung may contain the following mycotoxins and/or their metabolites:

Macrocyclic Trichothecene incidence: 6/6*, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: no exposure to spore suspension of Stachybotrys chartarum (for detailed information please see the article), conc.: nr, country: USA587, *control incidence: 6?/6, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: artificial (dose: six times exposure to dust and fluid of spore suspension of Stachybotrys chartarum, SC1 group; for detailed information please see the article), conc.: 34.9 ng/g* (mean value), country: USA587, *after 72 h of last treatment

incidence: 6/6*, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: no exposure to spore suspension of Stachybotrys chartarum (for detailed information please see the article), conc.: nr, country: USA587, *control incidence: 6?/6, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: artificial (dose: single exposure to dust and fluid of spore suspension of Stachybotrys chartarum, SC2 group; for detailed information please see the article), conc.: 158.4 ng/g* (mean value), country: USA587, *after 24 h of single treatment

Goat Lymph Nodes see Goat lymph

Goat lymph may contain the following mycotoxins and/or their metabolites:

Macrocyclic Trichothecene incidence: 6/6*, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: no exposure to spore suspension of Stachybotrys chartarum (for detailed information please see the article), conc.: nr, country: USA587, *control incidence: 6?/6, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: artificial (dose: six times exposure to dust and fluid of spore suspension of Stachybotrys chartarum, SC1 group; for detailed information please see the article), conc.: 35.2 ng/g* ** (mean value), country: USA587, *after 72 h of last treatment, **in lymph nodes incidence: 6/6*, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: no exposure to spore suspension of Stachybotrys chartarum (for detailed information please see the article), conc.: nr, country: USA587, *control incidence: 6?/6, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: artificial (dose: single exposure to dust and fluid of spore suspension of Stachybotrys chartarum, SC2 group; for detailed information please see the article), conc.: 344.8 ng/g* ** (mean value), country: USA587, *after 24 h of single treatment, **in lymph nodes

Goat milk, raw may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M₁ incidence: 8?/8*, sa. const.: lactating Alpine goats, contamination: neither AF nor HSCAS; for detailed information

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please see the article), conc. range: ≤0.037 ppb** (mean value), country: USA²⁸², *control, **after 2 days (also measured after 4, 6 and 8 days, lowest conc.: 0.005 ppb after 8 days) incidence: 8/8, sa. const.: lactating Alpine goats, contamination: no AF but HSCAS (4%) addition, o., for 8 days? (for detailed information please see the article), conc.: nd, country: USA282 (measured after 2, 4, 6 and 8 days) incidence: 8?/8, sa. const.: lactating Alpine goats, contamination: artificial (dose: 200 ppb AF but no HSCAS addition, o., for 8 days? for detailed information please see the article), conc. range: ≤1.619 ppb* (mean value), country: USA282, *after 6 days of AF-administration (also measured after 2, 4 and 8 days, lowest conc.: 1.046 ppb after 4 days) incidence: 8?/8, sa. const.: lactating Alpine goats, contamination: artificial (dose: 200 ppb AF and additionally HSCAS (4%) addition, o., for 8 days?; for detailed information please see the article), conc. range: ≤0.189 ppb* (mean value), country: USA²⁸², *after 2 days of AF-administration (also measured after 4, 6 and 8 days, lowest conc.: 0.163 ppb after 4 days) incidence: 3?/3*, sa. const.: lactating Alpine goats, contamination: neither AF nor HSCAS (for detailed information please see the article), conc. range: ≤0.022 ppb** (mean value), country: USA²⁸², *control, **after 10 days of AF-administration (also measured after 2, 4, 6 and 12 days, lowest conc.: nd after 2 and 4 days) incidence: 3/3, sa. const.: lactating Alpine goats, contamination: no AF but HSCAS (1%) addition, o., for 12 days? (for detailed information please see the article), conc.: nd, country: USA282 (measured after 2, 4, 6, 10 and 12 days) incidence: 3/3, sa. const.: lactating Alpine goats, contamination: no AF but HSCAS (2%) addition (for detailed information please see the article),

conc.: nd, country: USA282 (measured after 2, 4, 6, 10 and 12 days) incidence: 3?/3, sa. const.: lactating Alpine goats, contamination: artificial (dose: 100 ppb AF but no HSCAS addition, o., for 12 days?; for detailed information please see the article), conc. range: ≤0.649 ppb*, country: USA²⁸², *after 2 days of AF-administration (also measured after 4, 6, 10 and 12 days, lowest conc.: 0.481 ppb after 6 days) incidence: 3?/3, sa. const.: lactating Alpine goats, contamination: artificial (dose: 100 ppb AF and additionally HSCAS (1%) addition, o., for 12 days?; for detailed information please see the article), conc. range: ≤0.332 ppb, country: USA²⁸², *after 10 days of AF-administration (also measured after 2, 4, 6 and 12 days, lowest conc.: 0.198 ppb after 4 days) incidence: 3?/3, sa. const.: lactating Alpine goats, contamination: artificial (dose: 100 ppb AF and additionally HSCAS (2%) addition, o., for 12 days?; for detailed information please see the article), conc. range: ≤0.111 ppb, country: USA²⁸², *after 4 days of AF-administration (also measured after 2, 6, 10 and 12 days, lowest conc.: 0.098 ppb after 12 days)

incidence: 1?/1?, sa. const.: milk from a goat, age: 3 years, wt.: 20 kg, contamination: artificial (dose: up to 3.254 mg* AFB $_1$ /kg ration, o., at day 1* (three different doses applicated over 8 days); for detailed information please see the article), conc.: \leq 0.281 μ g/ml*, country: Egypt $_3$ 75, *at the first day (also at other day intervals up to 15 days measured, lowest conc.: nd after 15 days)

Goat serum may contain the following mycotoxins and/or their metabolites:

MACROCYCLIC TRICHOTHECENE incidence: ?/?*, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10–16 weeks, contamination: no exposure to spore suspension of *Stachybotrys chartarum* (for detailed

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information please see the article), conc.: nr, country: USA587, *control incidence: 3/6, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: artificial (dose: single exposure to dust and fluid of spore suspension of Stachybotrys chartarum, SC1 group; for detailed information please see the article), conc.: 1.69* ng/ml (mean value), country: USA587, *after 24 h (also at other hour intervals up to 24 h measured) incidence: ?/?*, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: no exposure to spore suspension of Stachybotrys chartarum (for detailed information please see the article), conc.: nr, country: USA587, *control incidence: 6/6, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10–16 weeks, contamination: artificial (dose: single exposure to dust and fluid of spore suspension of Stachybotrys chartarum, SC2 group; for detailed information please see the article), conc. range: 2.02* to ≈≤8.3** ng/ml (mean value), country: USA587, after 24* and 0.25 h** (also at other hour intervals up to 24 h measured)

Goat spleen may contain the following mycotoxins and/or their metabolites:

*control

MACROCYCLIC TRICHOTHECENE incidence: 6/6*, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10–16 weeks, contamination: no exposure to spore suspension of *Stachybotrys chartarum* (for detailed information please see the article), conc.: nr, country: USA⁵⁸⁷,

incidence: 6?/6, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10–16 weeks, contamination: artificial (dose: six times exposure to dust and fluid of spore suspension of *Stachybotrys chartarum*, **SC1 group**; for detailed information please see the

article), conc.: 33.7 ng/g* (mean value), country: USA⁵⁸⁷, *after 72 h of last treatment

incidence: 6/6*, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: no exposure to spore suspension of Stachybotrys chartarum (for detailed information please see the article), conc.: nr, country: USA587, *control incidence: 6?/6, sa. const.: female and male Spanish-Boer cross-bred weanling goats, age: 10-16 weeks, contamination: artificial (dose: single exposure to dust and fluid of spore suspension of Stachybotrys chartarum, SC2 group; for detailed information please see the article), conc.: 147.0 ng/g* (mean value), country: USA587, *after 24 h of single treatment

Guinea Pig

Guinea Pig Artificial Contamination

Guinea pig adrenal may contain the following mycotoxins and/or their metabolites:

TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2 toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤1,276 pmol/mg wet weight* ** (mean value), country: USA³⁸⁹, *TRICHO mole eq., **after 0.5 h (also at other hour intervals up to 672 h measured, lowest conc.: 23 pmol/mg wet weight after 672 h)

Guinea pig bile may contain the following mycotoxins and/or their metabolites:

TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2

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toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤535,760 pmol/ml* ** (mean value), country: USA³⁸⁹, *TRICHO mole eq., **after 12 h (also at other hour intervals up to 672 h measured, lowest conc.: 10 pmol/mg wet weight after 672 h)

Guinea pig brain may contain the following mycotoxins and/or their metabolites:

Trichothecenes

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2 toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤355 pmol/mg wet weight* ** (mean value), country: USA³⁸⁹, *TRICHO mole eq., **after 0.5 h (also at other hour intervals up to 672 h measured, lowest conc.: 2 pmol/mg wet weight after 336 and 672 h)

Guinea pig fat may contain the following mycotoxins and/or their metabolites:

TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2 toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤1,171 pmol/mg wet weight* ** (mean value), country: USA³⁸⁹, *TRICHO mole eq., **after 0.5 h (also at other hour intervals up to 672 h measured, lowest conc.: 3 pmol/mg wet weight after 672 h)

Guinea pig heart may contain the following mycotoxins and/or their metabolites:

TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2

toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤1,115 pmol/mg wet weight* ** (mean value), country: USA³⁸⁹, *TRICHO mole eq., **after 0.5 h (also at other hour intervals up to 672 h measured, lowest conc.: 2 pmol/mg wet weight after 672 h)

Guinea pig kidney may contain the following mycotoxins and/or their metabolites:

TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2 toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤2,675 pmol/mg wet weight* ** (mean value), country: USA³⁸⁹, *TRICHO mole eq., **after 0.5 h (also at other hour intervals up to 672 h measured, lowest conc.: 6 pmol/mg wet weight after 672 h)

Guinea pig liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: ?/?*, sa. const.: male Hartley guinea pigs, wt.: 235-450 g, contamination: no AFB, conc.: nr, country: France/Japan²⁴, *control incidence: ?/?, sa. const.: male Hartley guinea pigs, wt.: 235-450 g, contamination: artificial (dose: 20 µg AFB,/kg/day, by gavage, daily for up to 14 days), conc.: 1.40 pmol AFB, -FAPy/mg DNA* ** (mean value), country: France/Japan²⁴, *animals killed after 24 h of final treatment, **AFB₁-DNA adducts incidence: ?/?, sa. const.: male Hartley guinea pigs, wt.: 235-450 g, contamination: artificial (dose: 80 µg AFB₁/kg/day, by gavage, daily for up to 14 days), conc. range: ≤12.0 pmol AFB,-FAPy/mg DNA* ** (mean values), country: France/Japan²⁴,

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*animals killed after 24 h of final treatment (also measured after 1, 3 and 7 days, lowest conc.: ≈2.5 pmol AFB₁-FAPy/mg DNA after 1 day), **AFB₁-DNA adducts

TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2 toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤1,826 pmol/mg wet weight*
** (mean value), country: USA³⁸⁹, *TRICHO mole eq., **after 0.5 h (also at other hour intervals up to 672 h measured, lowest conc.: 4 pmol/mg wet weight after 672 h)

Guinea pig lung may contain the following mycotoxins and/or their metabolites:

TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2 toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤1,373 pmol/mg wet weight* ** (mean value), country: USA³89, *TRICHO mole eq., **after 0.5 h (also at other hour intervals up to 672 h measured, lowest conc.: 3 pmol/mg wet weight after 672 h)

Guinea pig muscle may contain the following mycotoxins and/or their metabolites:

TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2 toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤728 pmol/mg wet weight* ** (mean value), country: USA³⁸⁹, *TRICHO mole eq., **after 0.5 h (also at other hour intervals up to 672 h measured, lowest conc.: 1 pmol/mg wet weight after 672 h)

Guinea pig plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: ?/?*, sa. const.: male Hartley guniea pigs, wt.: 235-450 g, contamination: no AFB,, conc.: nr, country: France/Japan²⁴, *control incidence: ?/?, sa. const.: male Hartley guinea pigs, wt.: 235-450 g, contamination: artificial (dose: 20 µg AFB,/kg/day, by gavage, daily for up to 14 days), conc. range: ≈≤15 pg AFB,-lysine eq/mg albumin* ** (mean values), country: France/Japan²⁴, *animals killed after 24 h of final treatment (also measured after 1, 3 and 7 days, lowest conc.: ≈4 pg AFB,-lysine eq/mg albumin after 1 day), **AFB,-albumin adducts incidence: ?/?, sa. const.: male Hartley guinea pigs, wt.: 235-450 g, contamination: artificial (dose: 80 µg AFB,/kg/day, by gavage, daily for up to 14 days), conc. range: ≤77.6 pg AFB₁-lysine eq/mg albumin* ** (mean values), country: France/Japan²⁴, *animals killed after 24 h of final treatment (also measured after 1, 3 and 7 days, lowest conc.: 10 pg AFB, -lysine eq/mg albumin after 1 day), **AFB,-albumin adducts

TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2 toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤289 pmol/ml*
** (mean value), country: USA³⁸⁹,
*TRICHO mole eq., **after 12 h (also at other hour intervals up to 672 h measured, lowest conc.: 6 pmol/mg wet weight after 672 h)

Guinea pig spleen may contain the following mycotoxins and/or their metabolites:

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TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2 toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤1,302 pmol/mg wet weight*
** (mean value), country: USA³⁸⁹, *TRICHO mole eq., **after 0.5 h (also at other hour intervals up to 672 h measured, lowest conc.: 6 pmol/mg wet weight after 672 h)

Guinea pig testes may contain the following mycotoxins and/or their metabolites:

TRICHOTHECENES

incidence: 6?/6, sa. const.: male guinea pigs (Hartley Strain), wt.: 450–500 g, contamination: artificial (dose: 1.04 mg T-2 toxin (labeled)/kg, injected, once; for detailed information please see the article), conc. range: ≤493 pmol/mg wet weight* ** (mean value), country: USA³⁸⁹, *TRICHO mole eq., **after 0.5 h (also at other hour intervals up to 672 h measured, lowest conc.: 4 pmol/mg wet weight after 168 and 336 h)

Hamster

Hamster Artificial Contamination

Hamster kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: ?/8*, sa. const.: male Syrian Golden hamsters, wt.: 70–80 g, contamination: artificial (dose: 40 μg AFB₁ (labeled)/100 g b. wt., i.p., once; for detailed information please see the article), conc.: 1.6 AFB₁-DNA binding pmol/mg DNA** (mean value), country: USA⁵⁵⁶, *control, **after 2 h incidence: ?/8, sa. const.: male Syrian Golden hamsters, weight: 70–80 g, contamination: artificial (dose: 40 μg

AFB, (labeled)/100 g b. wt., i.p., once and pretreatment with L-BSO, conc.: 4 mmol, 4 and 2 h before AFB, injection); for detailed information please see the article), conc.: 2.3 AFB, -DNA binding pmol/mg DNA* (mean value), country: USA556, *after 2 h incidence: ?/8, sa. const.: male Syrian Golden hamsters, wt.: 70-80 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g b. wt., i.p., once and pretreatment with DEM (conc.: 3.5 mmol, 4 h before AFB, injection) + L-BSO, conc.: 4 mmol, 2 h before AFB, injection); for detailed information please see the article), conc.: 2.8 AFB, -DNA binding pmol/mg DNA* (mean value), country: USA556, *after 2 h

incidence: 3?/3, sa. const.: male Golden Syrian hamster, wt.: 120-140 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g, i.p., once, conc. range: ≈≤14 ng AFB, bound/mg rRNA* (mean value), country: UK608, *after 6 h (also measured after 2, 24 and 48 h, lowest conc.: ≈4 ng AFB, bound/mg rRNA after 48 h) incidence: 3?/3, sa. const.: male Golden Syrian hamster, wt.: 120-140 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g, i.p., once), conc. range: ≈≤10 ng AFB, bound/mg DNA* (mean value), country: UK608, *after 6 h (also measured after 2, 24 and 48 h, lowest conc.: ≈2 ng AFB, bound/mg DNA after 48 h) incidence: 3?/3, sa. const.: male Golden Syrian hamster, wt.: 120-140 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g, i.p., once), conc. range: ≈≤0.6 ng AFB, bound/mg protein* (mean value), country: UK608, *after 6 h (also measured after 2, 24 and 48 h, lowest

Hamster liver may contain the following mycotoxins and/or their metabolites:

conc.: nd after 48 h)

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AFLATOXIN B₁ incidence: ?/?*, sa. const.: male Syrian Golden hamsters, wt.: 70–130 g, contamination: no AFB₁, conc.: nr, country: France/Japan²⁴, *control incidence: ?/?, sa. const.: male Syrian Golden hamsters, wt.: 70–130 g, contamination: artificial (dose: 20 μg AFB₁/kg/day, by gavage, daily for up to 14 days), conc.: 0.75 pmol AFB₁-FAPy/ mg DNA* ** (mean value), country: France/Japan²⁴, *animals killed after 24 h of final treatment, **AFB₁-DNA adducts

incidence: ?/?, sa. const.: male Syrian Golden hamsters, wt.: 70–130 g, contamination: artificial (dose: 80 µg AFB₁/kg/day, by gavage, daily for up to 14 days), conc. range: ≤1.39 pmol AFB₁-FAPy/mg DNA* ** (mean values), country: France/Japan²⁴, *animals killed after 24 h of final treatment (also measured after 1, 3 and 7 days, lowest conc.: ≈0.5 pmol AFB₁-FAPy/mg DNA after 1 day), **AFB₁-DNA adducts

incidence: ?/8*, sa. const.: male Syrian Golden hamsters, wt.: 70-80 g, contamination: artificial (dose: 40 μg AFB, (labeled)/100 g b. wt., i.p., once; for detailed information please see the article), conc.: 5.9 AFB,-DNA binding pmol/mg DNA** (mean value), country: USA556, *control, **after 2 h incidence: ?/8, sa. const.: male Syrian Golden hamsters, wt.: 70-80 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g b. wt., i.p., once and pretreatment with L-BSO, conc.: 4 mmol, 4 and 2 h before AFB, injection); for detailed information please see the article), conc.: 6.5 pmol/mg DNA* (mean value), country: USA556, *after 2 h incidence: ?/8, sa. const.: male Syrian Golden hamsters, wt.: 70-80 g, contamination: artificial (dose: 40 μg AFB, (labeled)/100 g b. wt., i.p., once and pretreatment with DEM, conc.: 3.5 mmol, 4 h before AFB, injection) + L-BSO (conc.: 4 mmol, 2 h before AFB,

injection), conc.: 10.3 AFB₁-DNA binding pmol/mg DNA* (mean value), country: USA⁵⁵⁶, *after 2 h

incidence: 3?/3, sa. const.: male Golden Syrian hamster, wt.: 120–140 g, contamination: artificial (dose: 40 μ g AFB₁ (labeled)/100 g, i.p., once, conc. range: \approx 5.5 ng AFB₁ bound/mg rRNA* (mean value), country: UK⁶⁰⁸, *after 2 h (also measured after 6, 24 and 48 h, lowest conc.: \approx 2 ng AFB₁ bound/mg rRNA after 48 h) incidence: 3?/3, sa. const.: male Golden Syrian hamster, wt.: 120–140 g, contamination: artificial (dose: 40 μ g AFR₁ (labeled)/100 g in page 2002

Syrian hamster, wt.: 120–140 g, contamination: artificial (dose: 40 µg AFB₁ (labeled)/100 g, i.p., once, conc. range: ≈≤5 ng AFB₁ bound/mg DNA* (mean value), country: UK⁶⁰⁸, *after 6 h (also measured after 2, 24 and 48 h, lowest conc.: ≈1 ng AFB₁ bound/mg DNA after 48 h)

incidence: 3?/3, sa. const.: male Golden Syrian hamster, wt.: 120–140 g, contamination: artificial (dose: 40 μ g AFB₁ (labeled)/100 g, i.p., once, conc. range: \approx 51 ng AFB₁ bound/mg protein* (mean value), country: UK⁶⁰⁸, *after 2 h (also measured after 6, 24 and 48 h, lowest conc.: nd after 48 h)

Hamster plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: ?/?*, sa. const.: male Syrian Golden hamsters, wt.: 70-130 g, contamination: no AFB₁, conc.: nr, country: France/Japan²⁴, *control incidence: ?/?, sa. const.: male Syrian Golden hamsters, wt.: 70-130 g, contamination: artificial (dose: $20 \mu g$ AFB₁/kg/day, by gavage, daily for up to 14 days), conc. range: $\approx \le 5$ pg AFB₁-lysine eq/mg albumin* (mean values), country: France/Japan²⁴, *after 14 days (also measured after 1, 3 and 7 days, lowest conc.: ≈ 0.5 pg AFB₁-lysine eq/mg albumin after 1 day), **AFB₁-albumin adducts

incidence: ?/?, sa. const.: male Syrian Golden hamsters, wt.: 70–130 g, contamination: artificial (dose: 80 µg AFB₁/kg/day, by gavage, daily for up to 14 days), conc. range: ≤46 pg AFB₁-lysine eq/mg albumin* (mean values), country: France/Japan²⁴, *after 14 days (also measured after 1, 3 and 7 days, lowest conc.: ≈2 pg AFB₁-lysine eq/mg albumin after 1 day), **AFB₁-albumin adducts

Hare

Hare Natural Contamination

Hare liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/42, sa. const.: livers from free living hares of Czechoslovakia?, contamination: natural, conc. range: 0.232–1.20 µg/kg, country: Czechoslovakia⁹ incidence: ?/12, sa. const.: livers from hares of Czechoslovakia? living in boxes, contamination: natural, conc. range: ≤0.19 µg/kg, country: Czechoslovakia⁹

Heifers see Cattle

Hen

Hen Natural Contamination see also Chicken

Hen egg may contain the following mycotoxins and/or their metabolites:

Aflatoxin B₁ incidence: ?/?, sa. const.: eggs from laying hens of the USA?, contamination: probably natural, conc.: \approx 0.075 ng/g, country: USA⁷⁵

DEOXYNIVALENOL

incidence: 17/20, sa. const.: eggs from laying hens of Belgium, contamination: natural (for detailed information please see the article), conc. range: tr-17.9 ppb (mean values), country: Belgium⁵⁷⁶

DEEPOXYDEOXYNIVALENOL

incidence: 4/20, sa. const.: eggs from laying hens of Belgium, contamination: natural (for detailed information please see the article), conc. range: 2.4–23.7 ppb (mean values), country: Belgium⁵⁷⁶

Hen Artificial Contamination

Hen may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: ?/4, sa. const.: White Leghorn hens, age: 316 days, wt.: 1.3–1.7 kg, contamination artificial (dose: 2.2 mg DON (labeled)/bird, o. once; for detailed information please see the article), conc. range: ≤30.0 µg/bird* ** (mean value), country: Canada¹³⁵, *total DON eq. (DON and/or metabolites), **after 3 h (also at other hour intervals up to 96 h measured, lowest conc.: 0.1 µg/bird after 96 h)

incidence: ?/3, sa. const.: White Leghorn hens, age: 316 days, wt.: 1.3–1.7 kg, contamination artificial (dose: 2.2 mg DON (unlabeled)/day/bird, o., for days 1–6 followed by 2.2 mg DON (labeled)/day/bird, o., for days 7–12; for detailed information please see the article), conc. range: ≤16.0 µg/bird* ** (mean value), country: Canada¹³⁵, *total DON eq. (DON and/or metabolites), **after 8 days of DON-administration (also at other day intervals up to 18 days measured, lowest conc.: 1.9 µg/bird after 18 days)

Hen Adipose Tissue see Hen fat

Hen adrenal may contain the following mycotoxins and/or their metabolites:

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20–22 weeks,

wt.: 1,600–1,800 g, contamination artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: ≤8.05 μg/g* *** ***, country: USA⁸¹, *AFs or their metabolites, **after 4 days (also measured after 1 and 7 days, lowest conc.: 4.00 μg/g after 1 day), ***in adrenal and thyroid

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: \leq 79 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 24 h (also measured after 2, 4, 48 and 72 h, lowest conc.: 32 µg eq ZEA/100 g wet tissue after 4 h)

Hen Adrenal and Thyroid see Hen adrenal

Hen bile may contain the following mycotoxins and/or their metabolites:

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: $\leq 40.33 \, \mu g/g^*$ **, country: USA⁸¹, *AFs or their metabolites, **after 1 day (also measured after 4 and 7 days, lowest conc.: $8.17 \, \mu g/g$ after 7 days)

Deoxynivalenol

incidence: ?/?*, sa. const.: White Leghorn hens, age: 55 weeks, contamination: no NIV (for detailed information please see the article), conc.: nr, country: Lithuania/Sweden³⁷⁵, *control incidence: ?/?, sa. const.: White Leghorn hens, age: 55 weeks, contamination: artificial (dose: 5 mg NIV/kg, o., for 50 days; for detailed information please see the article), conc.: 27 ng/ml*

(mean value), country: Lithuania/Sweden³⁷⁵, *after 50 days

NIVALENOL

incidence: ?/?*, sa. const.: White Leghorn hens, age: 55 weeks, contamination: no NIV (for detailed information please see the article), conc.: nr, country: Lithuania/Sweden³⁷⁵, *control incidence: ?/?, sa. const.: White Leghorn hens, age: 55 weeks, contamination: artificial (dose: 5 mg NIV/kg, o., for 50 days; for detailed information please see the article), conc.: 11 ng/ml* (mean value), country: Lithuania/ Sweden³⁷⁵, *after 50 days

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26-39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: $\leq 56,300$ µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 24 h (also measured after 2, 4, 48 and 72 h, lowest conc.: 3,460 µg eq ZEA/100 g wet tissue after 72 h)

Hen blood may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 6/6*, sa. const.: Single Comb White Leghorn hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control

incidence: 9/10, sa. const.: Single Comb White Leghorn hens, contamination: artificial (dose: $8 \mu g AFB_1/g$ feed, for 7 days; for detailed information please see the article), conc. range: \leq 0.07 ng/g* **, country: USA³⁶³, *AFB₁-residues, **after 7 days

OCHRATOXIN A

incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial

(dose: OTA 0.5 ppm (feed weight), o., for 2 weeks), conc.: 6.9 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 5.0 ppm (feed weight), o., for 2 weeks), conc.: 7.0 ppb* (mean value), country: USA³¹⁶, *after 14 days

ZEARALENONE

incidence: ?/4*, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤95 μg eq ZEA/100 g wet tissue** (mean value), country: USA³⁹⁴, *whole blood, **after 4 h (also measured after 2, 24, 48 and 72 h, lowest conc.: 39 μg eq ZEA/100 g wet tissue after 72 h)

Hen blood clot may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.06–0.12 µg/kg* (mean values), country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain,

pullets of the Snaver strain, contamination: artificial (dose: 3,310 μ g AFB₁/kg + 1,680 μ g AFB₂/kg, o., for 4 weeks; for detailed information please

see the article), conc.: 0.05 μg/kg* (mean value), country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN B,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/24, sa. const.: White Leghorn

pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.07–0.10 µg/kg* (mean values), country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: 0.03 μg/kg* (mean value), country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN B_{2a} incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see

weeks; for detailed information please see the article), conc. range: 0.02–0.04 µg/kg* (mean values), country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: tr* (mean value), country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μ g AFB₁/kg + 1,680 μ g AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn

pullets of the Shaver strain, contamination artificial (dose: 3,310 μ g AFB₁/kg + 1,680 μ g AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M_2 incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB $_1$ + AFB $_2$ (for detailed information please see the

article), conc.: nr, country: USA110, *control

incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o, for 4 weeks; for detailed information please see the article), conc. range: 0.01 µg/kg* (mean value), country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination artificial (dose: 3,310 µg $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg$, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA110, *2 days after feeding 4 weeks an

Hen brain may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

AF-contaminated diet

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26-39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤ 26 µg eq ZEA/100 g wet tissue* (mean value), country: USA 394 , *after 4 h (also measured after 2, 24, 48 and 72 h, lowest conc.: 11 µg eq ZEA/100 g wet tissue after 72 h)

Hen Breast see Hen muscle, breast

Hen cloaca may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 0.5 ppm (feed weight), o., for 2 weeks), conc.: 15.1 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age:

24 weeks, contamination: artificial (dose: OTA 5.0 ppm (feed weight), o., for 2 weeks), conc.: 25.7 ppb* (mean value), country: USA³¹⁶, *after 14 days

Hen clutch may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: ?/4, sa. const. From White Leghorn laying hens, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤256 µg eq ZEA/100 g wet weight* (mean value), country: USA³⁹⁴, *after 21–26 h (also measured after 1–10, 43–50 and 69–72 h, lowest conc.: 19 µg eq ZEA/100 g wet weight after 1–10 h)

Hen comb may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26-39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤ 183 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 24 h (also measured after 2, 4, 48 and 72 h, lowest conc.: 57 µg eq ZEA/100 g wet tissue after 2 h)

Hen Crop and Gizzard see Hen gizzard

Hen digestive tract may contain the following mycotoxins and/or their metabolites:

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20–22 weeks, wt.: 1,600–1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: ≤111.36 µg/g* ** ***, country: USA⁸¹, *AFs or their metabolites, **in contents of digestive tract, ***after 4 days

(also measured after 1 and 7 days, lowest conc.: 42.26 µg/g after 7 days)

Hen egg may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 20/20*, sa. const.: eggs from laying hens, contamination: no AFB, conc.: nd, country: Italy201, *control organic and aqueous phase incidence: ?/20, sa. const.: eggs from laying hens, contamination: artificial (dose: 30 µg AFB,/kg b. wt., by gavage, for 7 days), conc. range: ≤1.15 ng/g* (mean value), country: Italy²⁰¹, *in organic phase, **at day 2 after AFB,treatment (also measured after 7 days conc.: 0.02 ng/g) incidence: ?/20, sa. const.: eggs from laying hens, contamination: artificial (dose: 30 µg AFB /kg b. wt., by gavage, for 7 days), conc.: 0.17 ng/g* (mean value), country: Italy²⁰¹, *in aqueous phase, **at day 7 after AFB,-treatment (also measured after 2 days but conc.: nd)

incidence: 6/6*, sa. const.: Single Comb White Leghorn hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control incidence: ?/?, sa. const.: eggs from Single Comb White Leghorn hens, contamination: artificial (dose: 8 ug

Single Comb White Leghorn hens, contamination: artificial (dose: 8 µg AFB₁/g feed, for 7 days; for detailed information please see the article), conc. range: \leq 3.3 (ng/g) × 10^{-1*} ******, country: USA³⁶³, *AFL-residues, **after 6.5 days of AFB₁-administration, ***(also at other day intervals up to 14 days measured, lowest conc.: nd after 13.5 and 14 days)

AFLATOXIN B,

incidence: $16/16^*$, sa. const.: eggs from White Leghorn pullets, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹², *control

incidence: ?/2–3, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB₁ + 1,680 μg AFB₂/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: tr–0.06 μg/kg* (mean values), country: USA¹¹², *conc. in eggs laid during AF-feeding (up to 4 weeks measured)

incidence: ?/5-6, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: tr-0.06 µg/kg* (mean values), country: USA112, *conc. in albumen during AF-feeding (up to 4 weeks measured) incidence: ?/5-6, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: 0.01-0.06 µg/ kg* (mean values), country: USA112, *conc. in yolk during AF-feeding (up to 4 weeks measured)

incidence: 16/16*, sa. const.: eggs from White Leghorn pullets, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA112, *control incidence: ?/2-3, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.03 μg/kg* (mean value), country: USA¹¹², *conc. in eggs after day 1-3 of withdrawal of the AF-containing diet (up to 4 days measured after withdrawal of AFs) incidence: ?/?, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: $3,310 \mu g AFB_1 + 1,680 \mu g AFB_2/kg$ feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.02 μg/kg* (mean values), country: USA112, *conc. in

albumen after day 1–2 of withdrawal of the AF-containing diet (up to 6 days measured after withdrawal of AFs) incidence: ?/?, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB₁ + 1,680 μg AFB₂/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr–0.03 μg/kg* (mean values), country: USA¹¹², *conc. in yolk after day 1–6 of withdrawal of the AF-containing diet (up to 7 days measured after withdrawal of AFs)

incidence: 10/10, sa. const.: eggs from Arbor Acre hens, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA139 incidence: ?/10, sa. const.: eggs from Arbor Acre hens, contamination: artificial (dose: 0.1 ppm AFB₁, o., for 10 days; for detailed information please see the article), conc. range: ≤0.35 ppb*, country: USA¹³⁹, *after 10 days on ration incidence: ?/10, sa. const.: eggs from Arbor Acre hens, contamination: artificial (dose: 0.2 ppm AFB,, o., for 12 days; for detailed information please see the article), conc. range: ≤ 2.2 ppb*, country: USA139, *after 11 days on ration incidence: ?/10, sa. const.: eggs from Arbor Acre hens, contamination: artificial (dose: **0.4 ppm AFB**₁, o., for 15 days; for detailed information please see the article), conc. range: ≤3.3 ppb*, country: USA139, *after 10 days on ration

incidence: $20/20^*$, sa. const.: eggs from laying hens, contamination: no AFB₁, conc.: nd, country: Italy²⁰¹, *control of organic and aqueous phase incidence: ?/20, sa. const.: eggs from laying hens, contamination: artificial (dose: $30~\mu g$ AFB₁/kg b. wt., by gavage, for 7 days), conc. range: $\leq 1.70~ng/g^* ** ****$ (mean value), country: Italy²⁰¹, *in **organic phase**, **value corrected for AFB_{2a} level, ***at day 2 after AFB₁-treatment (also measured after 7 days conc.: 0.82~ng/g)

incidence: 20/20, sa. const.: eggs from laying hens, contamination: artificial (dose: 30 µg AFB₁/kg b. wt., by gavage, for 7 days), conc.: nd* ** ***, country: Italy²⁰¹, *in aqeous phase, **value corrected for AFB_{2a} level, ***at day 2 and 7 after AFB₁-treatment

incidence: 39/39*, sa. const.: eggs from

white HNL-type hens, contamination: no AFB, + AFG, (for detailed information please see the article), conc.: nd, country: Germany320, *control incidence: ?/10, sa. const.: eggs from white HNL-type hens, contamination: artificial (dose: 10,000 ppb AFB₁/13,000 ppb AFG₁, o., for 8 weeks; for detailed information please see the article), conc. range: ≤0.26 ppb* ** (mean value), country: Germany320, *after 8 weeks?, **in albumen (40 ppb AFB,/52 ppb AFG,, 100 ppb AFB,/31 ppb AFG, or 1,000 ppb AFB,/310 ppb AFG, fed = no contamination; 3,000 ppb AFB,/930 ppb AFG,, 5,000 ppb AFB,/1,550 ppb AFG, or 10,000 ppb AFB₁/13,000 ppb AFG₁ and 4 weeks later 5,000 ppb AFB,/6,500 ppb AFG, fed but lower contamination than the pr. value) incidence: 39/39*, sa. const.: eggs from white HNL-type hens, contamination: no AFB, + AFG, (for detailed information please see the article), conc.: nd, country: Germany320, *control incidence: ?/10, sa. const.: eggs from white HNL-type hens, contamination: artificial (dose: 10,000 ppb AFB₁/13,000 ppb AFG₁, o., for 8 weeks; for detailed information please see the article), conc. range: ≤0.79 ppb* ** (mean value), country: Germany³²⁰, *after 8 weeks?, **in yolk (40 ppb AFB,/52 ppb AFG,, 100 ppb AFB,/31 ppb AFG, or

incidence: 39/39*, sa. const.: eggs from white HNL-type hens, contamination: no

 $1,000 \text{ ppb AFB}_{1}/310 \text{ ppb AFG}_{1} \text{ fed} = \text{no}$

contamination; 3,000 ppb AFB,/930 ppb

AFG,, 5,000 ppb AFB,/1,550 ppb AFG, or

10,000 ppb AFB₁/13,000 ppb AFG₁ and 4

fed but lower contamination than the pr.

value)

weeks later 5,000 ppb AFB₁/6,500 ppb AFG₁

AFB, + AFG, (for detailed information please see the article), conc.: nd, country: Germany320, *control incidence: ?/10, sa. const.: eggs from white HNL-type hens, contamination: artificial (dose: 10,000 ppb AFB₁/13,000 ppb AFG₁, o., for 8 weeks; for detailed information please see the article), conc. range: ≤0.43 ppb* ** (mean value), country: Germany³²⁰, *after 8 weeks?, **in yolk and albumen (40 ppb AFB,/52 ppb AFG,, 100 ppb AFB₁/31 ppb AFG₁ or 1,000 ppb $AFB_{1}/310 \text{ ppb } AFG_{1} \text{ fed} = \text{no}$ contamination; 3,000 ppb AFB,/930 ppb AFG,, 5,000 ppb AFB,/1,550 ppb AFG, or 10,000 ppb AFB₁/13,000 ppb AFG₁ and 4 weeks later 5,000 ppb AFB /6,500 ppb AFG, fed but lower contamination than the pr. value)

incidence: 35/35*, sa. const.: eggs from brown HNL-type hens, contamination: no AFB, + AFG, (for detailed information please see the article), conc.: nd, country: Germany320, *control incidence: ?/16, sa. const.: eggs from brown HNL-type hens, contamination: artificial (dose: 5,000 ppb AFB,/1,550 ppb AFG₁, o., for 3 weeks; for detailed information please see the article), conc. range: ≤0.16 ppb* ** (mean value), country: Germany320, *after 3 weeks?, **in albumen (100 ppb AFB,/31 ppb AFG, or $3,000 \text{ ppb AFB}_1/930 \text{ ppb AFG}_1 \text{ fed} = \text{no}$ contamination; 10,000 ppb AFB₁/3,100 ppb AFG₁ fed but lower contamination than the pr. value) incidence: 35/35*, sa. const.: eggs from brown HNL-type hens, contamination: no AFB, + AFG, (for detailed information please see the article), conc.: nd, country: Germany320, *control incidence: ?/16, sa. const.: eggs from brown HNL-type hens, contamination: artificial (dose: 5,000 ppb AFB,/1,550 ppb **AFG**₁, o., for 3 weeks; for detailed information please see the article), conc. range: ≤0.40 ppb* ** (mean value), country: Germany)320, *after 3 weeks?, **in yolk (100 ppb AFB,/31 ppb AFG, or $3,000 \text{ ppb AFB}_{1}/930 \text{ ppb AFG}_{1} \text{ fed} = \text{no}$

contamination; 10,000 ppb AFB₁/3,100 ppb AFG₁ fed but lower contamination than the pr. value)

incidence: ?/?*, sa. const.: eggs from Brown Hyssex laying hens, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence: ?/?, sa. const.: eggs from Brown Hyssex hens, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.56 µg/kg* (mean value), country: Spain359 (measured at 4th* day, 8th day, 16th day and 32nd day, lowest value conc.: 0.05 μg/kg after 16 days, intoxication period) incidence: ?/?, sa. const.: eggs from Brown Hyssex hens, contamination: artificial

Hyssex hens, contamination: artificial (dose: **5.0 mg AF**/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.34 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th day, 8th day, 16th* day and 32nd day, lowest value conc.: 0.05 μg/kg after 4 and 8 days, intoxication period)

incidence: ?/?*, sa. const.: eggs from Babcock hens (16 weeks old), contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: Brazil³⁶¹, *control incidence: ?/?, sa. const.: eggs from Babcock hens (16 weeks old), contamination: artificial (dose: 500 µg AFB₁/kg feed, for 8 weeks; for detailed information please see the article), conc. range: 0.05*-0.16** µg/kg***, Ø conc.: 0.10 µg/kg, country: Brazil³⁶¹ after 14* and 42** days

0.05*-0.16** μg/kg***, Ø conc.: 0.10 μg/kg, country: Brazil³61, after 14* and 42** days of AFB₁-administration (also at other day intervals up to 54 days measured, lowest conc.: nd after 7 days), ***AFB₁-residues (100 and 300 μg AFB₁/kg feed resulted in no contamination)

incidence: 6/6*, sa. const.: Single Comb White Leghorn hens, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control incidence: ?/?, sa. const.: eggs from Single Comb White Leghorn hens, contamination: artificial (dose: $8 \mu g$ AFB₁/g feed, for 7 days; for detailed information please see the article), conc. range: $\leq 3.8 \text{ (ng/g)} \times 10^{-1* ** ***}$, country: ISA³⁶³ *AFB₁ recidues **after 6.5 days

range: ≤3.8 (ng/g) × 10^{-1*} ** ***, country: USA³⁶³, *AFB₁-residues, **after 6.5 days of AFB₁-administration, ***(also at other day intervals up to 14 days measured, lowest conc.: nd in part after 13.5 and 14 days)

AFLATOXIN B,

incidence: $16/16^*$, sa. const.: eggs from White Leghorn pullets, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹², *control

incidence: ?/2–3, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 µg AFB₁ + 1,680 µg AFB₂/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: tr–0.05 µg/kg* (mean values), country: USA¹¹², *conc. in eggs laid during AF-feeding (up to 4 weeks measured)

incidence: ?/5–6, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 µg AFB₁ + 1,680 µg AFB₂/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: 0.01–0.04 µg/kg* (mean values), country: USA¹¹², *conc. in albumen during AF-feeding (up to 4 weeks measured)

incidence: ?/5–6, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μ g AFB₁ + 1,680 μ g AFB₂/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: 0.02–0.04 μ g/kg* (mean values), country: USA¹¹², *conc. in yolk during AF-feeding (up to 4 weeks measured)

incidence: 16/16*, sa. const.: eggs from White Leghorn pullets, contamination: no

AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA112, *control incidence: ?/2-3, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: ≤0.02 μg/kg* (mean value), country: USA112, *conc. in eggs after day 1-3 of withdrawal of the AF-containing diet (up to 4 days measured after withdrawal of AFs) incidence: ?/?, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.01 µg/kg* (mean values), country: USA112, *conc. in albumen after day 1-2 of withdrawal of the AF-containing diet (up to 6 days measured after withdrawal of AFs) incidence: ?/?, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.01 μg/kg* (mean values), country: USA112, *conc. in yolk after day 1-6 withdrawal of the AF-containing diet (up to 7 days measured after withdrawal of AFs)

AFLATOXIN B_{2a} incidence: $16/16^*$, sa. const.: eggs from White Leghorn pullets, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹², *control incidence: ?/2-3, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: $3,310~\mu g$ AFB₁ + $1,680~\mu g$ AFB₂/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: $0.02-0.09~\mu g/kg^*$ (mean values), country: USA¹¹², *conc. in eggs laid during AF-feeding (up to 4 weeks measured)

incidence: ?/5-6, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 µg AFB, + 1,680 µg AFB₂/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: 0.03-0.13 µg/ kg* (mean values), country: USA112, *conc. in albumen during AF-feeding (up to 4 weeks measured) incidence: ?/5-6, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: 0.03-0.11 μg/kg* (mean values), country: USA112, *conc. in yolk during AF-feeding (up to 4 weeks measured) incidence: 16/16*, sa. const.: eggs from White Leghorn pullets, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA112, *control incidence: ?/2-3, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.04 µg/kg* (mean values), country: USA112, *conc. in eggs after day 1-3 of withdrawal of the AF-containing diet (up to 4 days measured after withdrawal of AFs) incidence: ?/?, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.02 μg/kg* (mean values), country: USA¹¹², *conc. in albumen after day 1-2 of withdrawal of the AF-containing diet (up to 6 days measured after withdrawal of AFs) incidence: ?/?, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB₁ + 1,680 μg AFB₂/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.05 μg/kg*

(mean values), country: USA¹¹², *conc. in **yolk** after day 1–6 of withdrawal of the AF-containing diet (up to 7 days measured after withdrawal of AFs)

incidence: 20/20*, sa. const.: eggs from laying hens, contamination: no AFB, conc.: nd, country: Italy201, *control of organic and aqueous phase incidence: ?/20, sa. const.: eggs, contamination: artificial (dose: 30 µg AFB,/kg b. wt., by gavage, for 7 days), conc. range: ≤0.03 ng/g* ** (mean value), country: Italy201, *in organic phase, **at day 2 after AFB₁-treatment (also measured after 7 days conc.: 0.01 ng/g) incidence: ?/20, sa. const.: eggs, contamination: artificial (dose: 30 µg AFB,/kg b. wt., by gavage, for 7 days), conc.: 0.01 ng/g* ** (mean value), country: Italy²⁰¹, *in aqueous phase, **at day 7 after AFB,-treatment (also measured after 2 days but conc.: nd)

Aflatoxin G, incidence: 39/39*, sa. const.: eggs from white HNL-type hens, contamination: no AFB, + AFG, (for detailed information please see the article), conc.: nd, country: Germany320, *control incidence: ?/10, sa. const.: eggs from white HNL-type hens, contamination: artificial (dose: 10,000 ppb AFB₁/13,000 ppb AFG₁, o., for 8 weeks; for detailed information please see the article), conc. range: ≤0.15 ppb* ** (mean value), country: Germany³²⁰, *after 8 weeks?, **in albumen (40 ppb AFB₁/52 ppb AFG₁, 100 ppb AFB,/31 ppb AFG, 1,000 ppb AFB₁/310 ppb AFG₁ or 3,000 ppb $AFB_{1}/930 \text{ ppb } AFG_{1} \text{ fed} = \text{no}$ contamination; 5,000 ppb AFB₁/1,550 ppb AFG₁ or 10,000 ppb AFB₁/13,000 ppb AFG, and 4 weeks later 5,000 ppb AFB,/6,500 ppb AFG, fed but lower contamination than the pr. value) incidence: 39/39*, sa. const.: eggs from white HNL-type hens, contamination: no AFB, + AFG, (for detailed information

please see the article), conc.: nd, country: Germany320, *control incidence: ?/10, sa. const.: eggs from white HNL-type hens, contamination: artificial (dose: 10,000 ppb AFB,/13,000 ppb AFG,, o., for 8 weeks; for detailed information please see the article), conc. range: ≤0.90 ppb* ** (mean value), country: Germany³²⁰, *after 8 weeks?, **in yolk (40 ppb AFB, /52 ppb AFG, 100 ppb AFB,/31 ppb AFG,, 1,000 ppb AFB,/310 ppb AFG, or 3,000 ppb $AFB_{1}/930 \text{ ppb } AFG_{1} \text{ fed} = \text{no}$ contamination; 5,000 ppb AFB,/1,550 ppb AFG, or 10,000 ppb AFB,/13,000 ppb AFG, and 4 weeks later 5,000 ppb AFB₁/6,500 ppb AFG₁ fed but lower contamination than the pr. value) incidence: 39/39*, sa. const.: eggs from white HNL-type hens, contamination: no AFB, + AFG, (for detailed information please see the article), conc.: nd, country: Germany320, *control incidence: ?/10, sa. const.: eggs from white HNL-type hens, contamination: artificial (dose: 10,000 ppb AFB₁/13,000 ppb AFG₁, o., for 8 weeks; for detailed information please see the article), conc. range: ≤0.40 ppb* ** (mean value), country: Germany³²⁰, *after 8 weeks?, **in yolk and albumen (40 ppb AFB,/52 ppb AFG, 100 ppb AFB,/31 ppb AFG,, 1,000 ppb AFB₁/310 ppb AFG₁ or 3,000 ppb $AFB_1/930 \text{ ppb } AFG_1 \text{ fed} = \text{no}$ contamination; 5,000 ppb AFB,/1,550 ppb AFG, or 10,000 ppb AFB,/13,000 ppb AFG, and 4 weeks later 5,000 ppb AFB,/6,500 ppb AFG, fed but lower contamination than the pr. value) incidence: 35/35*, sa. const.: eggs from brown HNL-type hens, contamination: no AFB₁ + AFG₁ (for detailed information please see the article), conc.: nd, country: Germany320, *control incidence: ?/7, sa. const.: eggs from brown HNL-type hens, contamination: artificial (dose: 10,000 ppb AFB₁/3,100 ppb AFG₁, o., for 3 weeks; for detailed information

please see the article), conc. range: tr* ** (mean value), country: Germany320, *after 3 weeks?, **in albumen (100 ppb AFB,/31 ppb AFG,, 3,000 ppb AFB₁/930 ppb AFG₁ or 5,000 ppb $AFB_{1}/1,550 \text{ ppb } AFG_{1} \text{ fed} = \text{no}$ contamination) incidence: 35/35*, sa. const.: eggs from brown HNL-type hens, contamination: no AFB, + AFG, (for detailed information please see the article), conc.: nd, country: Germany320, *control incidence: ?/7, sa. const.: eggs from brown HNL-type hens, contamination: artificial (dose: 10,000 ppb AFB₁/3,100 ppb AFG₁, o., for 3 weeks; for detailed information please see the article), conc. range: ≤0.14 ppb* ** (mean value), country: Germany³²⁰, *after 3 weeks?, **in yolk (100 ppb AFB,/31 ppb AFG, or 3,000 ppb $AFB_{1}/930 \text{ ppb } AFG_{1} \text{ fed} = \text{no}$ contamination; 5,000 ppb AFB₁/1,550 ppb AFG, fed but lower contamination than the pr. value)

AFLATOXIN M,

incidence: 16/16*, sa. const.: eggs from White Leghorn pullets, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA112, *control incidence: ?/2-3, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: tr-0.02 μg/kg* (mean values), country: USA112, *conc. in eggs laid during AF-feeding (up to 4 weeks measured) incidence: ?/5-6, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB₁ + 1,680 μg AFB,/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: tr-0.02 μg/kg* (mean values), country: USA112, *conc. in albumen during AF-feeding (up to 4 weeks measured)

incidence: ?/5-6, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: tr-0.02 µg/kg* (mean values), country: USA112, *conc. in yolk during AF-feeding (up to 4 weeks measured) incidence: 16/16*, sa. const.: eggs from White Leghorn pullets, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA112, *control incidence: 2-3/2-3, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc.: nd/tr* (mean value), country: USA112, *conc. in eggs after day 1-2 of withdrawal of the AF-containing diet (up to 4 days measured after withdrawal of AFs) incidence: ?/?, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB₁ + 1,680 μg AFB₂/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA112, *conc. in albumen after withdrawal of the AF-containing diet (up to 6 days measured after withdrawal of AFs) incidence: ?/?, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB₁ + 1,680 μg AFB₂/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.01 µg/kg* (mean values), country: USA112, *conc. in yolk after day 1 of withdrawal of the AF-containing diet (up to 7 days

incidence: 20/20*, sa. const.: eggs from laying hens, contamination: no AFB₁, conc.: nd, country: Italy²⁰¹, *control of organic and aqueous phase incidence: ?/20, sa. const.: eggs from laying hens, contamination: artificial (dose: 30 µg AFB₁/kg b. wt., by gavage, for

measured after withdrawal of AFs)

7 days), conc.: 0.10 ng/g* (mean value), country: Italy²⁰¹, *in **organic phase**, **at day 7 after AFB₁-treatment (also measured after 2 days but conc.: nd) incidence: ?/20, sa. const.: eggs from laying hens, contamination: artificial (dose: 30 μg AFB₁/kg b. wt., by gavage, for 7 days), conc.: 0.32 ng/g* (mean value), country: Italy²⁰¹, *in **aqueous phase**, **at day 7 after AFB₁-treatment (also measured after 2 days but conc.: nd)

Aflatoxin M,

incidence: 16/16*, sa. const.: eggs from White Leghorn pullets, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA112, *control incidence: ?/2-3, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: tr-0.04 μg/kg* (mean values), country: USA112, *conc. in eggs laid during AF-feeding (up to 4 weeks measured) incidence: ?/5-6, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: 0.01-0.04 µg/ kg* (mean values), country: USA112, *conc. in albumen during AF-feeding (up to 4 weeks measured) incidence: ?/5-6, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for up to 4 weeks; for detailed information please see the article), conc. range: 0.01-0.04 μg/kg* (mean values), country: USA112, *conc. in yolk during AF-feeding (up to 4 weeks measured) incidence: 16/16*, sa. const.: eggs from White Leghorn pullets, contamination: no

AFB₁ + AFB₂ (for detailed information

please see the article), conc.: nr, country: USA112, *control incidence: ?/2-3, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 µg AFB, + 1,680 µg AFB3/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.01 μg/kg* (mean value) (mean values), country: USA112, *conc. in eggs after day 1-3 of withdrawal of the AF-containing diet (up to 4 days measured after withdrawal of AFs) incidence: ?/?, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 µg AFB, + 1,680 µg AFB,/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.01 μg/kg* (mean values), country: USA¹¹², *conc. in albumen after day 1-2 of withdrawal of the AF-containing diet (up to 6 days measured after withdrawal of AFs) incidence: ?/?, sa. const.: eggs from White Leghorn pullets, contamination: artificial (dose: 3,310 μg AFB, + 1,680 μg AFB,/kg feed for each hen, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.01 μg/kg* (mean values), country: USA112, *conc. in yolk after day 1-5 of withdrawal of the AF-containing diet (up to 7 days measured after withdrawal of AFs)

AFLATOXIN

incidence: ?/?*, sa. const.: eggs from SCWL hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: India³9², *control incidence: ?/?, sa. const.: eggs from SCWL hens, contamination: artificial (dose: 600 ppb AFB₁ in feed, o.; for detailed information please see the article), conc. range: ≤5.9 ppb*, country: India³9², *after feeding period 3 (values after period 1 and 2 lower, period = 28 days with daily AFB₁-consumption)

incidence: ?/?, sa. const.: eggs from SCWL hens, contamination: artificial (dose: 1,250 ppb AFB, in feed, o.; for detailed information please see the article), conc. range: ≤6.3 ppb*, country: India³⁹², *after feeding period 3 (values after period 1 and 2 lower, period = 28 days with daily AFB,-consumption) incidence: ?/?, sa. const.: eggs from SCWL hens, contamination: artificial (dose: 2,120 ppb AFB, in feed, o.; for detailed information please see the article), conc. range: ≤10.0 ppb*, country: India³⁹², *after feeding period 3 (values after period 1 and 2 lower, period = 28 days with daily AFB,-consumption) incidence: ?/?, sa. const.: eggs from SCWL hens, contamination: artificial (dose: 2,850 ppb AFB, in feed, o.; for detailed information please see the article), conc. range: ≤11.1 ppb*, country: India³⁹², *after feeding period 2 (values after period 1 and 3 lower, period = 28 days with daily AFB,-consumption)

AFLATOXINS

incidence: ?/?, sa. const.: eggs from White Leghorn hens (Cornell strain K), contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: $\leq 7.72 \, \mu g/g^* ** ***$, country: USA⁸¹, *AFs or their metabolites, **in albumen, ***after 14 h oviposition time (also measured after 10, 24 and 48 h, lowest conc.: 4.98 $\mu g/g$ after 10 h of ovulation)

incidence: ?/?, sa. const.: eggs from White Leghorn hens (Cornell strain K), contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: ≤7.31 µg/g******, country: USA**, *AFs or their metabolites, **in yolk, ***after 48 h oviposition time (also measured after 10, 14 and 24 h, lowest conc.:5.10 µg/g after 10 h of ovulation) incidence: ?/?, sa. const.: eggs from White Leghorn hens (Cornell strain K),

contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: \leq 12.47 μ g/g* ** ***, country: USA⁸¹, *AFs or their metabolites, **in **egg shell membranes**, ***after 48 h oviposition time (also measured after 10, 14 and 24 h, lowest conc.: 3.23 μ g/g after 10 h of ovulation)

CITRININ

incidence: ?/?*, sa. const.: eggs from Mamourah hens, contamination: no CIT (for detailed information please see the article), conc.: nr, country: Egypt⁵⁹¹, *control

incidence: ?/?, sa. const.: eggs from Mamourah hens, contamination: artificial (dose: 100 ppb CIT in the diet, o., for 6 weeks; for detailed information please see the article), conc.: 10.4 ppb***, country: Egypt³⁹¹, *egg yolk, **after 6 weeks incidence: ?/?, sa. const.: eggs from Mamourah hens, contamination: artificial (dose: 100 ppb CIT in the diet, o., for 6 weeks; for detailed information please see the article), conc.: 6.16 ppb* **, country: Egypt⁵⁹¹, *egg white, **after 6 weeks

CYCLOPIAZONIC ACID

incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination: no CPA (for detailed information please see the article), conc.: nd, country: Australia³⁶⁷, *control

incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination: artificial (dose: 2.5 mg CPA/kg, o., daily for 9 days; for detailed information please see the article), conc. range: ≤350 ng/g ** ***, country: Australia³67, *egg whites, **acute study, ***after 9 days of the first dose (also at other day intervals up to 9 days measured, except for the start values lowest conc.: ≈100 ng/g after 7 days) incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination: artificial (dose: 5 mg CPA/kg, o., daily for 9 days;

for detailed information please see the article), conc. range: ≤381 ng/g ** ***, country: Australia³67, *egg whites, **acute study, ***after 2 days of the first dose (also at other day intervals up to 9 days measured, except for the start value lowest conc.: ≈75 ng/g after 4 days) incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination: no CPA (for detailed information please see the article), conc.: nd, country: Australia³67, *control

incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination; artificial (dose: 2.5 mg CPA/kg, o., daily for 9 days; for detailed information please see the article), conc. range: ≤1 ng/g ** ***, country: Australia³⁶⁷, *egg yolks, **acute study, ***after 8 days of the first dose (also at other day intervals up to 9 days measured, generally low conc.) incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination: artificial (dose: 5 mg CPA/kg, o., daily for 9 days; for detailed information please see the article), conc. range: ≤11 ng/g ** ***, country: Australia³⁶⁷, *egg yolks, **acute study, ***after 4 days of the first dose (also at other day intervals up to 9 days measured, generally low conc.) incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination: no CPA (for detailed information please see the article), conc.: nd?, country: Australia367, *control incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination: artificial (dose: 1.25 mg CPA/kg, o., daily for 28 days; for detailed information please see the article), conc. range: ≤430 ng/g**, country: Australia³⁶⁷, *egg whites, **chronic study, ***at day 22 of CPA-administration (also at other day intervals up to 28 days measured, lowest conc.: ≈55 ng/g after 15 days) incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination: artificial (dose: 2.5 mg CPA/kg, o., daily for 28 days; for detailed information please see the article), conc. range: ≤193 ng/g ** ***,

country: Australia³⁶⁷, *egg whites, **chronic study, ***at day 17 of CPA-administration (also at other day intervals up to 28 days measured, except for the start values lowest conc.: ≈35 ng/g after 14 days) incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination: no CPA (for detailed information please see the article), conc.: nd?, country: Australia³⁶⁷, *control

incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination: artificial (dose: 1.25 mg CPA/kg, o., daily for 28 days; for detailed information please see the article), conc. range: ≤19 ng/g ** ***, country: Australia³⁶⁷, *egg yolks, **chronic study, ***at day 10 of CPA-administration (also at other day intervals up to 28 days measured, except for the start values lowest conc.: ≈2 ng/g after 15 days) incidence: ?/?*, sa. const.: eggs from crossbred hens, contamination; artificial (dose: 2.5 mg CPA/kg, o., daily for 28 days; for detailed information please see the article), conc. range: ≤26 ng/g ** ***, country: Australia³⁶⁷, *egg yolks, **chronic study, ***at day 14 of CPA-administration (also at other day intervals up to 28 days measured, except for the start value lowest conc.: ≈3 ng/g after 15 days)

DEOXYNIVALENOL

incidence: ?/?*, sa. const.: eggs from Bovan Goldline hens, which are derived from White Leghorns with addition of other genetic material, contamination: neither DON nor ZEA (for detailed information please see the article), conc.: nd, country: Czech Republic/UK414, *control incidence: ?/?, sa. const.: eggs from Bovan Goldline hens, which are derived from White Leghorns with addition of other genetic material, contamination: artificial (dose: $5.0 \text{ mg DON/kg} + 137.5 \mu\text{g ZEA/kg}$ feed, both for 21 days; for detailed information please see the article), Ø conc. range: 0.10*-0.39** μg/kg, country: Czech Republic/UK414, after 4* and 2**

weeks of DON- and ZEA-administration (also measured after 1 and 3 weeks but values between pr. values) incidence: ?/?, sa. const.: eggs from Bovan Goldline hens, which are derived from White Leghorns with addition of other genetic material, contamination: artificial (dose: $7.5 \text{ mg DON/kg} + 206 \mu \text{g ZEA/kg}$ feed, both for 21 days; for detailed information please see the article), Ø conc. range: 0.14*-0.54** μg/kg, country: Czech Republic/UK414, after 4* and 2** weeks of DON- and ZEA-administration (also measured after 1 and 3 weeks but values between pr. values) incidence: ?/?, sa. const.: eggs from Bovan Goldline hens, which are derived from White Leghorns with addition of other genetic material, contamination: artificial (dose: $10 \text{ mg DON/kg} + 275 \mu \text{g ZEA/kg}$ feed, both for 21 days; for detailed information please see the article), Ø conc. range: 0.18*-0.44** μg/kg, country: Czech Republic/UK414, after 4* and 3** weeks of DON- and ZEA-administration (also measured after 1 and 2 weeks but values between pr. values)

incidence: ?/≤10, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 2.2 mg DON (labeled), by intubation, once (acute study); for detailed information please see the article), conc. range: ≤1.91 µg/60-g egg* ** *** (mean value), country: Canada423, *total DON eq., **albumen, ***after 24 h (also measured after 48, 72 and 96 h, lowest conc.: 0.11 µg/60-g egg after 96 h) incidence: ?/?, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 2.2 mg DON (unlabeled), o., for 6 days and 2.2 mg DON (labeled), o. for the following 6 days and no DON for the remaining 6 days (chronic study); for detailed information please see the article), conc. range: ≤4.19 µg/60-g egg* ** *** (mean value), country: Canada423, *total DON eq., **albumen, ***after 13 days of the study (also at other day

intervals up to 18 days measured, lowest conc.: 0.757 µg/60-g egg after 7 and conc.: 0.868 µg/60-g egg after 18 days)

incidence: ?/?*, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: no DON (for detailed information please see the article), conc.: nr, country: Canada⁴²⁴, *control incidence: ?/?, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 5.5 ppm DON (labeled)/bird/day, o., for 65 days; for detailed information please see the article), conc. range: ≈≤1.7 µg/60 g egg* ** (mean value), country: Canada⁴²⁴, *DON and/or metabolites, **after 8 days of DON-administration (also at other day intervals up to 80 days measured, lowest conc.: almost nd after 80 days)

OCHRATOXIN A

incidence: ?/?, sa. const.: eggs from New Hampshire-Leghorn cross hens, contamination: artificial (dose: 0.5 ppm OTA, o., for 2 weeks; for detailed information please see the article), conc. range: 1.9-8.4 ppb* ** (mean values), Ø conc.: 4.78 ppb* ** (mean value), country: USA316, *conc. in yolk, **after 2 weeks? incidence: ?/?, sa. const.: eggs from New Hampshire-Leghorn cross hens, contamination: artificial (dose: 0.5 ppm OTA, o., for 2 weeks; for detailed information please see the article), conc. range: 1.7-8.7 ppb* ** (mean values), Ø conc.: 3.7 ppb* ** (mean value), country: USA³¹⁶, *conc. in **albumen**, **after 2 weeks? incidence: ?/?, sa. const.: eggs from New Hampshire-Leghorn cross hens, contamination: artificial (dose: 5 ppm OTA, o., for 2 weeks; for detailed information please see the article), conc. range: 3.3-7.8 ppb* ** (mean values), Ø conc.: 5.66 ppb* ** (mean value), country: USA³¹⁶, *conc. in yolk, **after 2 weeks? incidence: ?/?, sa. const.: eggs from New Hampshire-Leghorn cross hens, contamination: artificial (dose: 5 ppm

OTA, o., for 2 weeks; for detailed information please see the article), conc. range: 1.4–2.3 ppb* ** (mean values), Ø conc.: 1.88 ppb* ** (mean value), country: USA³¹⁶, *conc. in **albumen**, **after 2 weeks?

incidence: 5/5*, sa. const.: eggs from White Leghorn hens, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany374, *control incidence: ?/5, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 1.3 mg OTA/kg feed, o., for 28 days; for detailed information please see the article), conc.: 1.6 µg/kg* ** (mean value), country: Germany374, *in yolk, **after feeding OTA for 28 days incidence: ?/5, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 2.6 mg OTA/kg feed, o., for 28 days; for detailed information please see the article), conc.: 2.5 µg/kg* ** (mean value), country: Germany374, *in yolk, **after feeding OTA for 28 days incidence: ?/5, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 5.2 mg OTA/kg feed, o., for 28 days; for detailed information please see the article), conc.: 4.0 µg/kg* ** (mean value), country: Germany374, *in yolk, **after feeding OTA for 28 days incidence: 5/5*, sa. const.: eggs from White Leghorn hens, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany³⁷⁴, *control incidence: ?/5, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 1.3 mg OTA/kg feed, o., for 28 days; for detailed information please see the article), conc.: 0.1 µg/kg* ** (mean value), country: Germany³⁷⁴, *in albumen, **after feeding OTA for 28 days incidence: ?/5, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 2.6 mg OTA/kg feed, o., for 28 days; for detailed information please see the article), conc.: 0.2 μg/kg* ** (mean value), country: Germany³⁷⁴, *in **albumen**, **after feeding OTA for 28 days incidence: ?/5, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: **5.2 mg OTA/**kg feed, o., for 28 days; for detailed information please see the article), conc.: 0.1 µg/kg* ** (mean value), country: Germany³⁷⁴, *in **albumen**, **after feeding OTA for 28 days

incidence: ?/?*, sa. const.: eggs from Rhode Island Red hens, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Poland590, *control incidence: ?/?, sa. const.: eggs from Rhode Island Red hens, contamination: artificial (dose: 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 4.1 ppb*, country: Poland590, *collection of eggs began after 14 days of OTAadministration incidence: ?/?, sa. const.: eggs from Rhode Island Red hens, contamination: artificial (dose: 4.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 7.9 ppb*, country: Poland590, *collection of eggs began after 14 days of OTA-administration

ZEARALENONE

incidence: ?/7, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤22 µg eq ZEA/100 g wet weight* ** (mean value), country: USA³⁹⁴, *in white egg, **after 43-50 h (also measured after 1-10, 21-26 and 69-72 h, lowest conc.: 7 μg eq ZEA/100 g wet weight after 1-10 hincidence: ?/4, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤195 µg eq ZEA/100 g wet weight* ** (mean value), country: USA394, *in yolk egg, **after 69-72 h (also measured after

1–10, 21–26 and 43–50 h, lowest conc.: 23 μ g eq ZEA/100 g wet weight after 1–10 h)

Hen excreta may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B_1 incidence: 2/2, sa. const.: brown hens (HNL-type), contamination: artificial (dose: AFB₁ + AFG₁ addition; for detailed information please see the article), conc. range: \leq 131.8 ppb*, country: Germany³²⁰, *after 24 h (also measured after 48, 72, 96 and 120 h, lowest conc.: tr after 120 h)

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20–22 weeks, wt.: 1,600–1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc.: 0.3976 mg/g (total)*
** ***, country: USA⁸¹, *AFs or their metabolites, **in urinary-fecal excretion, ***mean value from 0 to 168 h (up to 168 h measured)

DEOXYNIVALENOL

incidence: 10/10*, sa. const.: Single Comb White Leghorn hens, age: 26 weeks, contamination: no DAS, DON and ZEA (for detailed information please see the article), conc.: nd, country: Canada³⁷⁷, *control

incidence: ?/10, sa. const.: Single Comb White Leghorn hens, age: 26 weeks, contamination: artificial (dose: **82.80 mg DON**/kg + **10.70 mg ZEA**/kg diet (DAS can be neglected), o., for 27 days; for detailed information please see the article), conc.: 8.7 ppm* (mean value), country: Canada³⁷⁷, *after 27 days

Fusarenon-X

incidence: ?/?*, sa. const.: White Leghorn hens, age: 55 weeks, contamination: no NIV (for detailed information please see the article), conc.: nr, country: Lithuania/Sweden³⁷⁵, *control incidence: ?/?, sa. const.: White Leghorn hens, age: 55 weeks, contamination: artificial (dose: 5 mg NIV/kg, o., for 50 days; for detailed information please see the article), conc.: tr*, country: Lithuania/Sweden³⁷⁵, *during the investigation

NIVALENOL

incidence: ?/?*, sa. const.: White Leghorn hens, age: 55 weeks, contamination: no NIV (for detailed information please see the article), conc.: nr, country: Lithuania/Sweden³75, *control incidence: ?/?, sa. const.: White Leghorn hens, age: 55 weeks, contamination: artificial (dose: 5 mg NIV/kg, o., for 50 days; for detailed information please see the article), conc. range: ≤174 ng/g* (mean value), country: Lithuania/Sweden³75, *after 4−6 days feeding contaminated diet (also measured after 1−3, 19−21 and 48−50 days, lowest conc.: 29 ng/g after 1−3 days)

DEEPOXYNIVALENOL

incidence: ?/?*, sa. const.: White Leghorn hens, age: 55 weeks, contamination: no NIV (for detailed information please see the article), conc.: nr, country: Lithuania/Sweden³⁷⁵, *control incidence: ?/?, sa. const.: White Leghorn hens, age: 55 weeks, contamination: artificial (dose: 5 mg NIV/kg, o., for 50 days; for detailed information please see the article), conc. range: ≤292 ng/g* (mean value), country: Lithuania/Sweden³⁷⁵, *after 4-6 days feeding contaminated diet (also measured after 1-3, 19-21 and 48-50 days, lowest conc.: 13 ng/g after 1-3 days)

Hen fat may contain the following mycotoxins and/or their metabolites:

AFLATOXINS

incidence: ?/?*, sa. const.: White Leghorn hens (Cornell strain K), age: 20–22 weeks,

wt.: 1,600–1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: \leq 6.14 µg/g** ***, country: USA⁸¹, *adipose tissue, **AFs or their metabolites, ***after 4 days (also measured after 1 and 7 days, lowest conc.: 4.14 µg/g after 1 day)

DEOXYNIVALENOL

incidence: ?/?, sa. const.: White Leghorn hens, age: 187 days, wt.: 1.3–1.7 kg, contamination: artificial (dose: 2.2 mg DON (labeled)/bird, o., once; for detailed information please see the article), conc.: 25 ng eq DON* **, country: Canada¹³⁵, *DON (or metabolites) in cutaneous fat, **after 96 h?

OCHRATOXIN A

incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 0.5 ppm (feed weight), o., for 2 weeks), conc.: 11.9 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 5.0 ppm (feed weight), o., for 2 weeks), conc.: 37.2 ppb* (mean value), country: USA³¹⁶, *after 14 days

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26-39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤ 41 µg eq ZEA/100 g wet tissue* (mean value), country: USA 394 , *after 72 h (also measured after 2, 4, 24 and 48 h, lowest conc.: 26 µg eq ZEA/100 g wet tissue after 2 h)

Hen Feces see Hen excreta

Hen gallbladder may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: \leq 4,080 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 24 h (also measured after 2, 4, 48 and 72 h, lowest conc.: 386 µg eq ZEA/100 g wet tissue after 72 h)

Hen gizzard may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.34–1.29 µg/kg*, Ø conc.: 0.67 µg/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 3/8, sa. const.: White Leghorn pullets of the Shaver strain.

incidence: 3/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination artificial (dose: 3,310 μ g AFB₁/kg + 1,680 μ g AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.04 μ g/kg*,

country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

incidence: 16?/16?*, sa. const.: Brown

Hyssex laying hens, age: 27 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤7.41 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: 0.84 μg/kg after 16 days, intoxication period) incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤22.5 µg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th*, 8th, 16th and 32nd day, lowest conc.: 3.58 µg/kg after 16 days, intoxication period)

AFLATOXIN B,

contamination no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.16–0.73 μg/kg*, Ø conc.: 0.38 μg/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn

incidence: 8/8*, sa. const.: White Leghorn

pullets of the Shaver strain,

pullets of the Shaver strain,

contamination no AFB, + AFB, (for

detailed information please see the

article), conc.: nr, country: USA¹¹⁰, *control incidence: 6/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.05 μg/kg*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

incidence: 16?/16?*, sa. const.: Brown Hyssex laying hens, age: 27 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.19 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: 0.04 µg/kg after 16 and 32 days, intoxication period) incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.67 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th*, 8th, 16th and 32nd day, lowest conc.: 0.08 µg/kg after 16 days, intoxication period)

AFLATOXIN B_{2a} incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 7/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see

the article), conc. range: tr–0.10 μ g/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn

pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 2/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: **3,310 μg** AFB₁/kg + **1,680 μg** AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN G, incidence: 16?/16?*, sa. const.: Brown Hyssex laying hens, age: 27 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤1.62 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: 0.11 µg/kg after 32 days) incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤7.32 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th*, 8th, 16th and 32nd day, lowest conc.: 0.94 µg/kg after 16 days)

AFLATOXIN G₂ incidence: 16?/16?*, sa. const.: Brown Hyssex laying hens, age: 27 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³⁵⁹, *control

incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc.: nd, country: Spain³⁵⁹ (measured at 4th, 8th, 16th and 32nd day, intoxication period) incidence: 2/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: tr*, country: Spain³⁵⁹ (measured at 4th*, 8th, 16th and 32nd day, intoxication period)

AFLATOXIN M,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

incidence: 4/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μ g AFB₁/kg + 1,680 μ g AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.01 μ g/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: nd* and NR, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M₂ incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for

detailed information please see the article), conc.: nr, country: USA110, *control incidence: 5/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.02 μg/kg*, country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg$, o., for 4 weeks; for detailed information please see the article), conc.: nd* and NR, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: $\leq 8.65 \,\mu g/g^* **$, country: USA⁸¹, *AFs or their metabolites, **after 1 day (also measured after 4 and 7 days, lowest conc.: 4.48 µg/g after 4 days) incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: $\leq 103.10 \,\mu g/g^* ** ***,$ country: USA81, *AFs or their metabolites, **in contents of crop and gizzard, ***after 4 days (also measured after 1 and 7 days, lowest conc.: 31.33 µg/g after 7 days)

DEOXYNIVALENOL

incidence: 10/10*, sa. const.: Single Comb White Leghorn hens, age: 26 weeks, contamination: no DAS, DON and ZEA (for detailed information please see the article), conc.: nd, country: Canada³77, *control incidence: ?/10, sa. const.: Single Comb White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 82.80 mg DON/kg + 10.70 mg ZEA/kg diet (DAS can be neglected), o., for 27 days; for detailed information please see the article), conc.: ≈20 ppm* (mean value), country: Canada³77, *after 27 days

OCHRATOXIN A

incidence: 8?/8, sa. const.: New
Hampshire-Leghorn cross hens, age:
24 weeks, contamination: artificial
(dose: OTA 0.5 ppm (feed weight), o.,
for 2 weeks), conc.: 7.3 ppb* (mean value),
country: USA³¹⁶, *after 14 days
incidence: 8?/8, sa. const.: New
Hampshire-Leghorn cross hens, age:
24 weeks, contamination: artificial
(dose: OTA 5.0 ppm (feed weight), o., for
2 weeks), conc.: 73.7 ppb* (mean value),
country: USA³¹⁶, *after 14 days

Hen heart may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.08–0.18 μg/kg* (mean values), country:

USA110, *after feeding 4 weeks an

AF-contaminated diet

pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn

AFLATOXIN B, incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: 0.05 µg/kg* (mean value), country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg, o.,$ for 4 weeks; for detailed information please see the article), conc.: nd*, country:

AFLATOXIN B_{2a} incidence: $8/8^*$, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB $_1$ + AFB $_2$ (for detailed information please see the

USA110, *2 days after feeding 4 weeks an

AF-contaminated diet

article), conc.: nr, country: USA110, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg, o.,$ for 4 weeks; for detailed information please see the article), conc. range: 0.05-0.06 μg/kg* (mean values), country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg, o.,$ for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA110, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M, incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg$, o., for 4 weeks; for detailed information please see the article), conc.: tr* (mean value), country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 16/16, sa. const.: White

Leghorn pullets of the Shaver strain,

contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M. incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg$, o., for 4 weeks; for detailed information please see the article), conc.: 0.02 μg/kg* (mean value), country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: $\leq 16.59 \, \mu g/g^*$, country: USA⁸¹, *AFs or their metabolites, **after 7 days (also measured after 1 and 4 days, lowest conc.: $7.07 \, \mu g/g$ after 4 days)

OCHRATOXIN A incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 0.5 ppm (feed weight), o., for 2 weeks), conc.: 12.0 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 5.0 ppm (feed weight), o., for 2 weeks), conc.: 43.8 ppb* (mean value), country: USA³¹⁶, *after 14 days

incidence: 24/24*, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Poland590, *control incidence: ?/22, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: artificial (dose: 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 2.1 ppb*, country: Poland⁵⁹⁰, *after 5 weeks? incidence: ?/2, sa. const.: Rhode Island Red cockerels, age: 54 weeks, contamination: artificial (dose: 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 0.07 ppb*, country: Poland⁵⁹⁰, *after 5 weeks? incidence: ?/22, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: artificial (dose: 4.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 18.6 ppb*, country: Poland590, *after 5 weeks? incidence: ?/2, sa. const.: Rhode Island Red cockerels, age: 54 weeks, contamination: artificial (dose: 4.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: nd*, country: Poland590, *after 5 weeks?

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: \leq 57 µg eq ZEA/100 g wet tissue (mean value), country: USA³⁹⁴,

*after 2 h (also measured after 4, 24, 48 and 72 h, lowest conc.: 25 µg eq ZEA/100 g wet tissue after 48 h)

Hen intestine may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 0.5 ppm (feed weight), o., for 2 weeks), conc.: 21.3 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 5.0 ppm (feed weight), o., for 2 weeks), conc.: 33.8 ppb* (mean value), country: USA³¹⁶, *after 14 days

Hen kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB $_1$ (for detailed information please see the article), conc.: nr, country: Italy 232 , *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 μ g AFB $_1$ /kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.04 μ g/kg* (mean value), country: Italy 232 , *after 169 days

incidence: 6/6*, sa. const.: Single Comb White Leghorn hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control

incidence: 9/10, sa. const.: Single Comb White Leghorns hens, contamination: artificial (dose: $8 \mu g AFB_1/g$ feed, for 7 days; for detailed information please see the article), conc. range: $\leq 0.15 \text{ ng/g***}$, country: USA³⁶³, *AFL-residues, **after 7 days

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 μg AFB₁/kg feed + 50 μg OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.40 μg/kg* (mean value), country: Italy⁵¹⁵, *after 169 days

AFLATOXIN B,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

rcontrol incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.27–0.87 μg/kg* (mean values), country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: 0.02 µg/kg* (mean value), country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 µg AFB₁/kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.08 µg/kg* (mean value), country: Italy²³², *after 169 days

incidence: 16?/16?*, sa. const.: Brown Hyssex laying hens, age: 27 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.25 µg/kg* (mean value), country: Spain359 (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: 0.07 µg/kg after 32 days, intoxication period) incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.37 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th*, 16th and 32nd* day, lowest conc.: 0.1 µg/kg after 32 days, intoxication period)

incidence: 6/6*, sa. const.: Single Comb White Leghorn hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control

incidence: 7/10, sa. const.: Single Comb White Leghorns hens, contamination: artificial (dose: $8 \mu g AFB_1/g$ feed, for 7 days; for detailed information please see the article), conc. range: $\le 0.62 \text{ ng/g*}^{***}$, country: USA³⁶³, *AFB₁-residues, **after 7 days

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 μg AFB₁/kg

feed + 50 μ g OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.32 μ g/kg* (mean value), country: Italy⁵¹⁵, *after 169 days

AFLATOXIN B.

incidence: $8/8^*$, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: $3,310~\mu g$ AFB₁/kg + $1,680~\mu g$ AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: $0.12-0.30~\mu g/kg^*$ (mean values), country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.01 μg/kg* (mean value), Ø conc.: 0.01 μg/kg**, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN B22

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 1.93–2.30 µg/kg* (mean values), country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.03 μg/kg* (mean value), Ø conc.: 0.03 μg/kg*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M, incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: 0.07-0.11 μg/kg* (mean values), country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB, (for detailed information please

weeks; for detailed information please see

the article), conc.: nd*, country: USA110,

*2 days after feeding 4 weeks an

AF-contaminated diet

see the article), conc.: nr, country: Italy²³², *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: **50 μg AFB**₁/kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.01 μg/kg* (mean value), country: Italy²³², *after 169 days

incidence: 6/6*, sa. const.: Single Comb White Leghorn hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control

incidence: 9/10, sa. const.: Single Comb White Leghorns hens, contamination: artificial (dose: 8 µg AFB₁/g feed, for 7 days; for detailed information please see the article), conc. range: ≤0.10 ng/g* **, country: USA³⁶³, *AFM₁-residues, **after 7 days

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 µg AFB₁ + 50 µg OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.01 µg/kg* (mean value), country: Italy⁵¹⁵, *after 169 days

AFLATOXIN M₂ incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.03–0.08 μg/kg* (mean values), country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn

DEOXYNIVALENOL

incidence: ?/?, sa. const.: White Leghorn hens, age: 316 days, wt.: 1.3–1.7 kg, contamination: artificial (dose: 2.2 mg DON (unlabeled)/day/bird, o., for 6 days followed by 2.2 mg DON (labeled)/day/bird, o., for 6 days; for detailed information please see the article), conc. range: ≈≤60 ng/g* (mean value), country: Canada¹³⁵, *after 8 days of DON-administration (also measured after 10, 12, 14, 16 and 18 days, lowest conc.: nd after 96 h?)

incidence: ?/?, sa. const.: White Leghorn hens, age: 187 days, wt.: 1.3–1.7 kg, contamination: artificial (dose: 2.2 mg DON (labeled)/bird, o., once; for detailed information please see the article), conc.: 25 ng eq DON* **, country: Canada¹³⁵, *DON (or metabolites), **after 96 h? (lowest conc.: significantly lower than the above indicated value after 18 days)

OCHRATOXIN A

incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 0.5 ppm (feed weight), o., for 2 weeks), conc.: 124.1 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 5.0 ppm (feed weight), o., for 2

weeks), conc.: 124.0 ppb* (mean value), country: USA³¹⁶, *after 14 days

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 µg AFB, + 50 µg OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 3.1 µg/kg* (mean value), country: Italy⁵¹⁵, *after 169 days incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country:

Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: $50 \mu g AFB_1 + 50 \mu g$ OTA/kg feed, o., for 87 days; for detailed information please see the article), conc. range: $0.5 \mu g/kg^*$ (mean value), country: Italy⁵¹⁵, *33 and 82 days after withdrawal from treatment

incidence: 12/12*, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Canada525, *control incidence: ?/8, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 0.5 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 36.8 ppm* (mean value), country: Canada⁵²⁵, *directly after withdrawal from treated feed for 6 weeks incidence: ?/12, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 1.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 77.0 ppm* (mean value), country:

Canada525, *directly after withdrawal from treated feed for 6 weeks incidence: 7/16, sa. const · H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 106.9 ppm* (mean value), country: Canada⁵²⁵, *directly after withdrawal from treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 31.0 ppm* (mean value), country: Canada525, *after 24 h off treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 13.1 ppm* (mean value), country: Canada⁵²⁵, *after 48 h off treated feed for 6 weeks

incidence: 24/24*, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Poland590, *control incidence: ?/22, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: artificial (dose: 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 8.1 ppb*, country: Poland590, *after 5 weeks? incidence: ?/2, sa. const.: Rhode Island Red cockerels, age: 54 weeks, contamination: artificial (dose: 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 2.9 ppb*, country: Poland⁵⁹⁰, *after 5 weeks? incidence: ?/22, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: artificial (dose: 4.1 ppm OTA in the

diet, o., for 5 weeks; for detailed information please see the article), conc.: 9.0 ppb*, country: Poland⁵⁹⁰, *after 5 weeks? incidence: ?/2, sa. const.: Rhode Island Red cockerels, age: 54 weeks, contamination: artificial (dose: 4.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 5.9 ppb*, country: Poland⁵⁹⁰, *after 5 weeks?

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: \leq 144 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 24 h (also measured after 2, 4, 48 and 72 h, lowest conc.: 31 µg eq ZEA/100 g wet tissue after 72 h)

Hen Leg see Hen muscle, leg

Hen liver may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: $50~\mu g~AFB_{_{I}}/kg$ feed, o., for 169 days; for detailed information please see the article), conc.: 0.60 $\mu g/kg^*$ (mean value), country: Italy²³², *after 169 days

incidence: 6/6*, sa. const.: Single Comb White Leghorn hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control

incidence: 10/10, sa. const.: Single Comb White Leghorns hens, contamination: artificial (dose: 8 µg AFB,/g feed, for

7 days; for detailed information please see the article), conc. range: ≤0.32 ng/g* **, country: USA³⁶³, *AFL-residues, **after 7 days

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB $_1$ + OTA (for detailed information please see the article), conc.: nr, country: Italy 515 , *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 μ g AFB $_1$ /kg feed + 50 μ g OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 1.80 μ g/kg* (mean value), country: Italy 515 , *after 169 days

AFLATOXIN B₁ incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.07–0.44 μg/kg*, Ø conc.: 0.2 μg/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 1/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: **3,310 µg** AFB₁/kg + **1,680 µg** AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: tr*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn

pullets of the Shaver strain,

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 µg AFB₁/kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.10 µg/kg* (mean value), country: Italy²³², *after 169 days

incidence: ?/?*, sa. const.: Warren laying hens, age: 11 months, wt.: ≈2.2 kg, contamination: neither AFB₁ nor CPL (for detailed information please see the article), conc.: nd, country: Italy²80, *control

incidence: ?/?, sa. const.: Warren laying hens, age: 11 months, wt.: ≈2.2 kg, contamination: no AFB, but CPL (2%) in the diet for 4 weeks; for detailed information please see the article), conc.: nd*, country: Italy280, *after 4 weeks incidence: ?/?, sa. const.: Warren laying hens, age: 11 months, wt.: ≈2.2 kg, contamination: artificial (dose: 2.5 ppm AFB,, o. and diet without CPL for 4 weeks; for detailed information please see the article), conc.: 2.21 ng/g* (mean value), country: Italy280, *after 4 weeks incidence: ?/?, sa. const.: Warren laying hens, age: 11 months, wt.: ≈2.2 kg, contamination: artificial (dose: 2.5 ppm AFB,, o. and diet with CPL (2%) for 4 weeks; for detailed information please see the article), conc.: 0.98 ng/g* (mean value), country: Italy280, *after 4 weeks

incidence: 1/?, sa. const.: brown hens (HNL-type), contamination: artificial (dose: $AFB_1 + AFG_1$ fed; for detailed information please see the article), conc. range: \leq 3.83 ppb, country: Germany³²⁰

incidence: 16?/16?*, sa. const.: Brown Hyssex laying hens, age: 27 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain³⁵⁹, *control

incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.35 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: 0.04 μg/ kg after 32 days, intoxication period) incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.23 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th*, 8th, 16th and 32nd day, lowest conc.: 0.07 µg/kg after 32 days, intoxication period)

incidence: $6/6^*$, sa. const.: Single Comb White Leghorn hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control

incidence: 10/10, sa. const.: Single Comb White Leghorns hens, contamination: artificial (dose: 8 µg AFB₁/g feed, for 7 days; for detailed information please see the article), conc. range: ≤0.83 ng/g* **, country: USA³⁶³, *AFB₁-residues, **after 7 days

incidence: ?/?*, sa. const.: eggs from SCWL hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: India³⁹², *control

incidence: ?/?, sa. const.: eggs from SCWL hens, contamination: artificial (dose: 600 ppb AFB₁ in feed; o.; for detailed information please see the article), conc.: 569 ppb*, country: India³⁹², *after feeding period 3 (84 days) (period = 28 days with daily AFB₁-consumption) incidence: ?/?, sa. const.: eggs from SCWL hens, contamination: artificial (dose: 1,250 ppb AFB₁ in feed; o.; for detailed information please see the article), conc.: 1,244 ppb*, country: India³⁹², *after

feeding period 3 (84 days) (period = 28 days with daily AFB₁-consumption) incidence: ?/?, sa. const.: eggs from SCWL hens, contamination: artificial (dose: 2,120 ppb AFB₁ in feed; o.; for detailed information please see the article), conc.: 2,245 ppb*, country: India³⁹², *after feeding period 3 (84 days) (period = 28 days with daily AFB₁-consumption) incidence: ?/?, sa. const.: eggs from SCWL hens, contamination: artificial (dose: 2,850 ppb AFB₁ in feed; o.; for detailed information please see the article), conc.:

2,186 ppb*, country: India392, *after

days with daily AFB,-consumption)

feeding period 3 (84 days) (period = 28

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB $_1$ + OTA (for detailed information please see the article), conc.: nr, country: Italy 515 , *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 μ g AFB $_1$ /kg feed + 50 μ g OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.20 μ g/kg* (mean value), country: Italy 515 , *after 169 days

incidence: 24/24*, sa. const.: Warren laying hens, age: 44 weeks, wt.: Ø 2.2 kg, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: Italy630, *control incidence: ?/24, sa. const.: Warren laying hens, age: 44 weeks, wt.: Ø 2.2 kg, contamination: 2.5 ppm AFB,, o., for 4 weeks (for detailed information please see the article), conc.: 4.13 ppb*, country: Italy630, *after 4 weeks incidence: 24/24, sa. const.: Warren laying hens, age: 44 weeks, wt.: Ø 2.2 kg, contamination: no AFB, but MOS-diet (0.11%) for 4 weeks (for detailed information please see the article), conc.: nd*, country: Italy630, *after 4 weeks incidence: ?/24, sa. const.: Warren laying hens, age: 44 weeks, wt.: Ø 2.2 kg,

contamination: **2.5 ppm AFB**₁, o. together with **MOS-diet** (0.11%) for 4 weeks (for detailed information please see the article), conc.: 2.21 ppb*, country: Italy⁶³⁰, *after 4 weeks

AFLATOXIN B.

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: 0.03-0.26 μg/kg*, Ø conc.: 0.13 μg/kg*, country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn

contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 2/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: **3,310 µg** AFB₁/kg + **1,680 µg** AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.01–0.02 µg/kg*, Ø conc.: 0.015 µg/kg*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

pullets of the Shaver strain,

AFLATOXIN B_{2a} incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o, for 4

weeks; for detailed information please see the article), conc. range: 0.35–3.87 μg/kg*, Ø conc.: 1.52 μg/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: $8/8^*$, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 7/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: $3,310~\mu g$ AFB₁/kg + $1,680~\mu g$ AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.09 $\mu g/kg^*$, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

incidence: 16/16?*, sa. const.: Brown Hyssex laying hens, age: 27 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.41 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th*, 16th and 32nd day, lowest conc.: nd after 16 days, intoxication period) incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.67 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th*, 8th, 16th and 32nd day, lowest conc.: 0.18 µg/kg after 16 days, intoxication period)

AFLATOXIN G₁ incidence: 1/?, sa. const.: brown hens (HNL-type), contamination: artificial (dose: AFB₁ addition; for detailed

information please see the article), conc.: 0.28 ppb, country: Germany³²⁰

AFLATOXIN M, incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 4/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.05 µg/kg*, country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc.: nd* and NR, country: USA110, *2 days after feeding

incidence: 16?/16?*, sa. const.: Brown Hyssex laying hens, age: 27 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: $\leq 0.32 \,\mu g/kg^*$ (mean value), country: Spain³⁵⁹ (measured at 4th, 8th, 16th and 32nd* day, lowest conc.: nd after 4 and 16 days, intoxication period) incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks,

4 weeks an AF-contaminated diet

contamination: artificial (dose: **5.0 mg** AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.11 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th, 8th, 16th* and 32nd day, lowest conc.: nd after 32 days, intoxication period)

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 µg AFB₁/kg feed + 50 µg OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: <0.01 µg/kg* (mean value), country: Italy⁵¹⁵, *after 169 days

AFLATOXIN M,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

incidence: 7/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.10 µg/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

incidence: 1/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: tr*, country: USA¹¹⁰,

*2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: $\leq 18.69 \, \mu g/g^* \, **$, country: USA⁸¹, *AFs or their metabolites, **after 4 days (also measured after 1 and 7 days, lowest conc.: $10.65 \, \mu g/g$ after 7 days)

DEOXYNIVALENOL

incidence: ?/?*, sa. const.: White Leghorn hens, age: 55 weeks, contamination: no NIV (for detailed information please see the article), conc.: nr, country: Lithuania/Sweden³⁷⁵, *control incidence: ?/?, sa. const.: White Leghorn hens, age: 55 weeks, contamination: artificial (dose: 5 mg NIV/kg, o., for 50 days; for detailed information please see the article), conc.: tr*, country: Lithuania/Sweden³⁷⁵, *after 50 days

NIVALENOL

incidence: ?/?*, sa. const.: White Leghorn hens, age: 55 weeks, contamination: no NIV (for detailed information please see the article), conc.: nr, country: Lithuania/Sweden³⁷⁵, *control incidence: ?/?, sa. const.: White Leghorn hens, age: 55 weeks, contamination: artificial (dose: 5 mg NIV/kg, o., for 50 days; for detailed information please see the article), conc.: tr*, country: Lithuania/weden³⁷⁵, *after 50 days

OCHRATOXIN A

incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: **OTA 0.5 ppm** (feed weight), o., for 2 weeks), conc.: 12.5 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 5.0 ppm (feed weight), o., for 2 weeks), conc.: 80.2 ppb* (mean value), country: USA³¹⁶, *after 14 days

incidence: 5/5*, sa. const.: White Leghorn hens, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany374, *control incidence: ?/5, sa. const.: White Leghorn hens, contamination: artificial (dose: 1.3 mg OTA/kg feed, o., for 28 days; for detailed information please see the article), conc.: 9.1 µg/kg* (mean value), country: Germany³⁷⁴, **after feeding OTA for 28 days incidence: ?/5, sa. const.: White Leghorn hens, contamination: artificial (dose: 2.6 mg OTA/kg feed, o., for 28 days; for detailed information please see the article), conc.: 17.9 µg/kg* (mean value), country: Germany³⁷⁴, **after feeding OTA for 28 days incidence: ?/5, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: 5.2 mg OTA/kg feed, o., for 28 days; for detailed information please see the article), conc.: 18.0 µg/kg* (mean value), country: Germany³⁷⁴, **after feeding OTA for 28 days

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country: Italy515, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 µg AFB,/kg feed + $50 \mu g$ OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 2.0 μg/kg* (mean value), country: Italy515, *after 169 days incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 μ g AFB₁/kg feed + 50 μ g OTA/kg feed, o., for 87 days; for detailed information please see the article), conc. range: 0.5*-0.9** μ g/kg (mean value), country: Italy⁵¹⁵, 33** and 82* days after withdrawal from treatment

incidence: 12/12*, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Canada⁵²⁵, *control incidence: ?/8, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 0.5 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 26.3 ppm* (mean value), country: Canada⁵²⁵, *directly after withdrawal from treated feed for 6 weeks incidence: ?/12, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 1.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 57.6 ppm* (mean value), country: Canada⁵²⁵, *directly after withdrawal from treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 72.6 ppm* (mean value), country: Canada525, *directly after withdrawal from treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 26.3 ppm* (mean value), country: Canada525, *after 24 h off treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White

Leghorn hens, age: 26 weeks,

contamination: artificial (dose: **4.0 ppm OTA** in feed, o., for 42 days; for detailed information please see the article), conc.: 8.7 ppm* (mean value), country: Canada⁵²⁵, *after 48 h off treated feed for 6 weeks

incidence: 24/24*, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Poland590, *control incidence: ?/22, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: artificial (dose: 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 3.3 ppb*, country: Poland⁵⁹⁰, *after 5 weeks? incidence: ?/2, sa. const.: Rhode Island Red cockerels, age: 54 weeks, contamination: artificial (dose: 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 1.3 ppb*, country: Poland⁵⁹⁰, *after 5 weeks? incidence: ?/22, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: artificial (dose: 4.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 11.9 ppb*, country: Poland590, *after 5 weeks? incidence: ?/2, sa. const.: Rhode Island Red cockerels, age: 54 weeks, contamination: artificial (dose: 4.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 1.7 ppb*, country: Poland⁵⁹⁰, *after 5 weeks?

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26-39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤ 397 µg eq ZEA/100 g wet tissue* (mean value), country: USA 394 , *after 4 h (also measured after 2, 24, 48 and 72 h, lowest conc.: 50 µg eq ZEA/100 g wet tissue after 72 h)

Hen lung may contain the following mycotoxins and/or their metabolites:

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20–22 weeks, wt.: 1,600–1,800 g, contamination: artificial (dose: 11.26 mg AFs, by stomach tube, once; for detailed information please see the article), conc. range: ≤8.10 µg/g* *****, country: USA⁸¹, *AFs or their metabolites, **after 7 days (also measured after 1 day and 4 days, lowest conc.: 3.20 µg/g after 1 day), ***in lung and trachea

OCHRATOXIN A

incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 0.5 ppm (feed weight), o., for 2 weeks), conc.: 17.3 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 5.0 ppm (feed weight), o., for 2 weeks), conc.: 87.0 ppb* (mean value), country: USA³¹⁶, *after 14 days

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26-39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤ 63 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 48 h (also measured after 2, 4, 24 and 72 h, lowest conc.: 26 µg eq ZEA/100 g wet tissue after 72 h)

Hen Lungs and Trachea see Hen lung

Hen muscle may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 16?/16?*, sa. const.: Brown Hyssex laying hens, age: 27 days, contamination: no AF (for detailed information please see the article), conc.: nd, country: Spain359, *control incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 2.5 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.2 μg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th*, 8th, 16th and 32nd* day, lowest conc.: 0.02 μg/kg after 8 and 16 days, intoxication period) incidence: 16?/16?, sa. const.: Brown Hyssex laying hens, age: 27 weeks, contamination: artificial (dose: 5.0 mg AF/kg feed, o., for 32 days; for detailed information please see the article), conc. range: ≤0.1 µg/kg* (mean value), country: Spain³⁵⁹ (measured at 4th*, 8th, 16th and 32nd day, lowest conc.: 0.02 µg/kg after 32 days, intoxication period)

Hen muscle, breast may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 6/6*, sa. const.: Single Comb White Leghorn hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control

incidence: 10/10, sa. const.: Single Comb White Leghorns hens, contamination: artificial (dose: $8 \mu g AFB_1/g$ feed, for 7 days; for detailed information please see the article), conc. range: \leq 0.11 ng/g* **, country: USA³⁶³, *AFL-residues, **after 7 days

AFLATOXIN B_1 incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB $_1$ + AFB $_2$ (for detailed information please see the article), conc.: nr, country: USA 110 , *control

incidence: 2/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μ g AFB₁/kg + 1,680 μ g AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr–0.05 μ g/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn

pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 4/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.01 μg/kg*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN B₂ incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 4/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr–0.05 μg/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 6/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr–0.02 μg/kg*,

incidence: 8/8*, sa. const.: White Leghorn

country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN B. incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, incidence: 7/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.03 μg/kg*, country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 6/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4

Aflatoxin M_1

AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 1/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: tr*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn

pullets of the Shaver strain,

weeks; for detailed information please see the article), conc. range: tr*, country:

USA110, *2 days after feeding 4 weeks an

contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 4/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.02 μg/kg*, country: USA¹¹⁰, *after feeding 4 weeks an

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

AF-contaminated diet

incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μ g AFB₁/kg + 1,680 μ g AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: nd* and CPR, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20–22 weeks, wt.: 1,600–1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc.

range: ≤9.9 µg/g* **, country: USA⁸¹, *AFs or their metabolites, **after 7 days (also measured after 1 and 4 days, lowest conc.: 6.46 µg/g after 4 days)

OCHRATOXIN A

incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 0.5 ppm (feed weight), o., for 2 weeks), conc.: 3.3 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 5.0 ppm (feed weight), o., for 2 weeks), conc.: 8.4 ppb* (mean value), country: USA³¹⁶, *after 14 days

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26-39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤ 12 μ g eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 72 h (also measured after 2, 4, 24 and 48 h, lowest conc.: 7 μ g eq ZEA/100 g wet tissue after 2 h)

Hen muscle, leg may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: $3,310~\mu g$ AFB₁/kg + $1,680~\mu g$ AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.11 $\mu g/kg^*$, country: USA¹¹⁰, *after

feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 5/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.01 μg/kg*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN B₂ incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: 0.02–0.22 μg/kg*, Ø conc.: 0.056 μg/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn

pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 6/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr–0.03 μg/kg*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet please like in the way of the other mycotoxins

Aflatoxin B_{2a} incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain,

contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: 0.02-0.04 µg/kg*, Ø conc.: 0.03 µg/kg*, country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 6/8, sa. const.: White Leghorn pullets of the Shaver strain,

contamination: artificial (dose: 3,310 µg

weeks; for detailed information please see

 $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg$, o., for 4

the article), conc. range: tr-0.02 μg/kg*,

country: USA110, *2 days after feeding

4 weeks an AF-contaminated diet

Aflatoxin M, incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 2/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.01 µg/kg*, country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for

detailed information please see the

article), conc.: nr, country: USA¹¹⁰,

*control

incidence: 16/16, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μ g AFB₁/kg + 1,680 μ g AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M₂ incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg

AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.02 µg/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

incidence: 2/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μ g AFB₁/kg + 1,680 μ g AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20–22 weeks, wt.: 1,600–1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: \leq 7.89 μ g/g* **, country: USA⁸¹, *AFs or their metabolites, **after 4 days (also measured after 1 and 7 days, lowest conc.: 5.70 μ g/g after 7 days)

OCHRATOXIN A

incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 0.5 ppm (feed weight), o., for 2 weeks), conc.: 4.2 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 5.0 ppm (feed weight), o., for 2 weeks), conc.: 7.2 ppb* (mean value), country: USA³¹⁶, *after 14 days

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: \leq 18 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 48 h (also measured after 2, 4, 24 and 72 h, lowest conc.: 9 µg eq ZEA/100 g wet tissue after 2 h)

Hen muscle, red may contain the following mycotoxins and/or their metabolites:

CITRININ

incidence: 9/9*, sa. const.: sex mature Mamourah hens, age: ≈13 months, b. wt.: Ø 1,998 g, contamination: no CIT (for detailed information please see the article), conc.: nr, country: Egypt⁵⁹¹, *control incidence: ?/9, sa. const.: sex mature Mamourah hens, age: ≈13 months, b. wt.: Ø 1,998 g, contamination: artificial (dose: 100 ppb CIT in the diet, o., for 6 weeks; for detailed information please see the article), conc.: 9.84 ppb*, country: Egypt⁵⁹¹, *after 6 weeks

OCHRATOXIN A

incidence: 12/12*, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Canada⁵²⁵, *control

incidence: ?/8, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 0.5 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 8.0 ppm* (mean value), country: Canada⁵²⁵, *directly after withdrawal from treated feed for 6 weeks incidence: ?/12, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 1.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 12.6 ppm* (mean value), country: Canada⁵²⁵, *directly after withdrawal from treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 20.8 ppm* (mean value), country: Canada525, *directly after withdrawal from treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: ndr, country: Canada525, *after 24 h off treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: ndr, country: Canada525, *after 48 h off treated feed for 6 weeks

Hen muscle, thigh may contain the following mycotoxins and/or their metabolites:

A FLATOXICOL

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: $50 \mu g AFB_1/kg$ feed + $50 \mu g OTA/kg$ feed, o., for 169 days; for detailed information please see the article), conc.: <0.04 $\mu g/kg^*$ (mean value), country: Italy⁵¹⁵, *after 169 days

AFLATOXIN B,

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: $50 \mu g \, AFB_1/kg$ feed, o., for 169 days; for detailed information please see the article), conc.: 0.07 $\mu g/kg^*$ (mean value), country: Italy²³², *after 169 days

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 μg AFB₁/kg feed + 50 μg OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.06 μg /kg* (mean value), country: Italy⁵¹⁵, *after 169 days

AFLATOXIN M,

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: $50~\mu g~AFB_1/kg$ feed, o., for 169 days; for detailed information please see the article), conc.: $0.02~\mu g/kg^*$ (mean value), country: Italy²³², *after 169 days

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination:

no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 μ g AFB₁/kg feed + 50 μ g OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.10 μ g/kg* (mean value), country: Italy⁵¹⁵, *after 169 days

OCHRATOXIN A

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 µg AFB,/kg feed + $50 \mu g$ OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 1.0 µg/kg* (mean value), country: Italy515, *after 169 days incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB, + OTA (for detailed information please see the article), conc.: nr, country: Italy515, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 µg AFB,/kg feed + 50 µg OTA/kg feed, o., for 87 days; for detailed information please see the article), conc. range: 0.5 µg/kg* (mean value), country: Italy515, *33 and 82 days after withdrawal from treatment

Hen muscle, white may contain the following mycotoxins and/or their metabolites:

CITRININ

incidence: $9/9^*$, sa. const.: sex mature Mamourah hens, age: ≈ 13 months, Ø wt.: 1,998 g, contamination: no CIT (for detailed information please see the article), conc.: nr, country: Egypt⁵⁹¹, *control incidence: ?/9, sa. const.: sex mature Mamourah hens, age: ≈ 13 months, Ø wt.:

1,998 g, contamination: artificial (dose: 100 ppb CIT in the diet, o., for 6 weeks; for detailed information please see the article), conc.: 10.3 ppb*, country: Egypt⁵⁹¹, *after 6 weeks

incidence: 12/12*, sa. const.: H and N

OCHRATOXIN A

White Leghorn hens, age: 26 weeks, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Canada525, *control incidence: ?/12, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 0.5 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: nd, country: Canada⁵²⁵, *directly after withdrawal from treated feed for 6 weeks incidence: ?/12, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 1.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 4.6 ppm* (mean value), country: Canada⁵²⁵, *directly after withdrawal from treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: 15.9 ppm* (mean value), country: Canada⁵²⁵, *directly after withdrawal from treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: nd, country: Canada525, *after 24 h off treated feed for 6 weeks incidence: ?/16, sa. const.: H and N White Leghorn hens, age: 26 weeks, contamination: artificial (dose: 4.0 ppm OTA in feed, o., for 42 days; for detailed information please see the article), conc.: nd, country: Canada525, *after 48 h off treated feed for 6 weeks

Hen muscle, wing may contain the following mycotoxins and/or their metabolites:

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: $\leq 8.18 \, \mu g/g^*$ **, country: USA⁸¹, *AFs or their metabolites, **after 1 day (also measured after 4 and 7 days, lowest conc.: $6.29 \, \mu g/g$ after 7 days)

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤12 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 24 h (also measured after 2, 4, 48 and 72 h, lowest conc.: 8 µg eq ZEA/100 g wet tissue after 2 h)

Hen ova may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 6/6*, sa. const.: Single Comb White Leghorn hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control incidence: 10/10, sa. const.: Single Comb White Leghorns hens,

Comb White Leghorns hens, contamination: artificial (dose: 8 µg AFB₁/g feed, for 7 days; for detailed information please see the article), conc. range: ≤0.42 ng/g* **, country: USA³⁶³, *AFL-residues, **after 7 days

AFLATOXIN B,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB₁ + AFB₂ (for detailed information

please see the article), conc.: nr, country: USA110, *control incidence: 6/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg, o., for 4$ weeks; for detailed information please see the article), conc. range: 0.03–0.15 μg/kg*, Ø conc.: 0.07 μ g/kg*, country: USA 110 , *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Legorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.08 μg/kg*, country: USA110, *2 days after feeding 4 weeks an AF-contaminated diet

incidence: 6/6*, sa. const.: Single Comb White Leghorn hens, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA³⁶³, *control

incidence: 10/10, sa. const.: Single Comb White Leghorns hens, contamination: artificial (dose: 8 µg AFB₁/g feed, for 7 days; for detailed information please see the article), conc. range: ≤0.37 ng/g* **, country: USA³⁶³, *AFB₁-residues, **after 7 days

AFLATOXIN B,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB $_1$ + AFB $_2$ (for detailed information please see the article), conc.: nr, country: USA 110 , *control incidence: 6/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μ g AFB $_1$ /kg + 1,680 μ g AFB $_2$ /kg, o., for 4 weeks; for detailed information please see

conc.: 0.03 µg/kg*, country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 8/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg, o., for 4$ weeks; for detailed information please see the article), conc. range: tr-0.03 µg/kg*, country: USA110, *2 days after feeding 4 weeks an AF-contaminated diet

the article), conc. range: 0.02-0.04 µg/kg*, Ø

Aflatoxin B₂₈

incidence: $8/8^*$, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: 6/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: $3,310~\mu g$ AFB₁/kg + $1,680~\mu g$ AFB₂/kg, o, for 4 weeks; for detailed information please see the article), conc. range: $0.02-0.04~\mu g/kg^*$, \emptyset conc.: $0.03~\mu g/kg^*$, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control

incidence: 7/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.05 µg/kg*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M, incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 5/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.02 μg/kg*, country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 1/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc.: 0.01 µg/kg*, country: USA110, *2 days after feeding 4 weeks an AF-contaminated diet

Aflatoxin M,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 6/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.02 μg/kg*, country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control

incidence: 4/8, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μ g AFB₁/kg + 1,680 μ g AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc. range: tr-0.02 μ g/kg*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: $\leq 8.29 \,\mu\text{g/g*} *** ****$, country: USA⁸¹, *AFs or their metabolites, **in large ova (>10 mm), *** after 4 days (also measured after 1 and 7 days, lowest conc.: 6.75 µg/g after 1 day) incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: $\leq 13.72 \,\mu\text{g/g*} ** ***, \text{ country:}$ USA81, *AFs or their metabolites, **in small ova (<10 mm), ***after 7 days (also measured after 1 and 4 days, lowest conc.: 7.09 µg/g after 4 days)

Hen Ovaries see Hen ova

Hen oviduct may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: \leq 68 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 24 h (also measured after 2, 4, 48 and 72 h, lowest conc.: 39 µg eq ZEA/100 g wet tissue after 2 h)

Hen pancreas may contain the following mycotoxins and/or their metabolites:

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), stomach tube, once; for detailed information please see the article), conc. range: ≤ 12.54 µg/g* **, country: USA⁸¹, *AFs or their metabolites, **after 7 days (also measured after 1 and 4 days, lowest conc.: 5.10 µg/g after 1 day)

ZEARALENONE

incidence: ?/20, sa. const.: White Leghorn laying hens, age: 26-39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤ 38 µg eq zearalenone/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 2 h (also measured after 4, 24, 48 and 72 h, lowest conc.: 15 µg eq ZEA/100 g wet tissue after 72 h)

Hen plasma may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: ?/4, sa. const.: White Leghorn hens, age: 316 days, wt.: 1.3–1.7 kg, contamination: artificial (dose: 2.2 mg DON (unlabeled)/day/bird, o., for 6 days followed by 2.2 mg DON (labeled)/day/bird, o., for 6 days; for detailed information please see the article), conc. range: ≈≤38–54 ng/ml* (mean value), country: Canada¹³⁵, *after 8–12 days exposure to DON (also measured after 14, 16 and 18 days, lowest conc.: significantly lower than the above indicated value after 18 days)

FUMONISIN B,

incidence: 6/6, sa. const.: White Leghorn laying hens, age: 30 weeks, wt.: 1.30–1.68 kg, contamination: artificial (dose: 2.0 mg FB₁ (labeled and unlabeled)/kg b.

wt., o., once; for detailed information please see the article), conc. range: 28–103 ng/ml* **, country: Canada¹²⁹, *FB₁ and/or metabolites, **(measured at other hour intervals up to 28 h, lowest conc.: nd after 24 h)

OCHRATOXIN A

incidence: ?/24*, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Poland⁵⁹⁰, *control

incidence: ?/22, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: artificial (dose: 2.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 13.3 ppb*, country: Poland⁵⁹⁰, *after 4 weeks of OTA-administration

incidence: ?/2, sa. const.: Rhode Island Red **cockerels**, age: 54 weeks, contamination: artificial (dose: **2.1 ppm OTA** in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 5.7 ppb*, country: Poland⁵⁹⁰, *after 4 weeks of OTA-administration

incidence: ?/22, sa. const.: Rhode Island Red hens, age: 54 weeks, contamination: artificial (dose: 4.1 ppm OTA in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 37.0 ppb*, country: Poland⁵⁹⁰, *after 4 weeks of OTA-administration

incidence: ?/2, sa. const.: Rhode Island Red **cockerels**, age: 54 weeks, contamination: artificial (dose: **4.1 ppm OTA** in the diet, o., for 5 weeks; for detailed information please see the article), conc.: 16.0 ppb*, country: Poland⁵⁹⁰, *after 4 weeks of OTA-administration

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: \leq 82 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴,

*after 4 h (also measured after 2, 24, 48 and 72 h, lowest conc.: 12 µg eq ZEA/100 g wet tissue after 72 h)

Hen red blood cells may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: \leq 269 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 48 h (also measured after 2, 4, 24 and 72 h, lowest conc.: 125 µg eq ZEA/100 g wet tissue after 72 h)

Hen reproductive organs may contain the following mycotoxins and/or their metabolites:

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), stomach tube, once; for detailed information please see the article), conc. range: $\leq 13.48 \, \mu g/g^* \, *^*$, country: USA⁸¹, *AFs or their metabolites, **after 1 day (also measured after 4 and 7 days, lowest conc.: $4.49 \, \mu g/g$ after 4 days)

Hen serum may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o, for 4 weeks; for detailed information please

kg* (mean values), country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o, for 4 weeks; for detailed information please see the article), conc.: 0.01 μg/kg* (mean value), country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

see the article), conc. range: 0.02-0.03 µg/

AFLATOXIN B,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o, for 4 weeks; for detailed information please see the article), conc. range: 0.04–0.05 μg/kg* (mean values), country: USA¹¹⁰, *after feeding 4 weeks an AF-contaminated diet

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nr, country: USA¹¹⁰, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB./kg + 1,680 µg

artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: 0.01 µg/kg * (mean value), country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN B_{2a} incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination

no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o, for 4 weeks; for detailed information please see the article), conc. range: 0.01-0.02 µg/ kg* (mean values), country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_{1}/kg + 1,680 \mu g AFB_{2}/kg$, o., for 4 weeks; for detailed information please see the article), conc.: tr* (mean value), country: USA110, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M,

*control

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control incidence: 16/24, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o, for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the

incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain,

article), conc.: nr, country: USA¹¹⁰,

contamination: artificial (dose: 3,310 μg AFB₁/kg + 1,680 μg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

AFLATOXIN M,

incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, incidence: ?/?, sa. const.: White Leghorn pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg $AFB_1/kg + 1,680 \mu g AFB_2/kg$, o., for 4 weeks; for detailed information please see the article), conc. range: tr* (mean value), country: USA110, *after feeding 4 weeks an AF-contaminated diet incidence: 8/8*, sa. const.: White Leghorn pullets of the Shaver strain, contamination no AFB, + AFB, (for detailed information please see the article), conc.: nr, country: USA110, *control

pullets of the Shaver strain, contamination: artificial (dose: 3,310 µg AFB₁/kg + 1,680 µg AFB₂/kg, o., for 4 weeks; for detailed information please see the article), conc.: nd*, country: USA¹¹⁰, *2 days after feeding 4 weeks an AF-contaminated diet

incidence: ?/?, sa. const.: White Leghorn

OCHRATOXIN A

incidence: 5/5*, sa. const.: White Leghorn hens, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany³⁷⁴, *control incidence: ?/5, sa. const.: White Leghorn hens, contamination: artificial (dose: **1.3 mg OTA**/kg feed, o., for 28 days; for detailed information please see the article), conc.: 4.7 µg/l* (mean value), country: Germany³⁷⁴, **after feeding OTA for 28 days

incidence: ?/5, sa. const.: White Leghorn hens, contamination: artificial (dose: **2.6 mg OTA**/kg feed, o., for 28 days; for detailed information please see the article), conc.: 14.1 μg/l* (mean value), country: Germany³⁷⁴, **after feeding OTA for 28 days incidence: ?/4, sa. const.: eggs from White Leghorn hens, contamination: artificial (dose: **5.2 mg OTA**/kg feed, o., for 28 days; for detailed information please see the article), conc.: 11.7 μg/l* (mean value),

Hen skin may contain the following mycotoxins and/or their metabolites:

country: Germany³⁷⁴, **after feeding OTA

AFLATOXICOL

for 28 days

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: $50 \mu g AFB_1/kg$ feed + $50 \mu g OTA/kg$ feed, o., for 169 days; for detailed information please see the article), conc.: $<0.04 \mu g/kg^*$ (mean value), country: Italy⁵¹⁵, *after 169 days

AFLATOXIN B,

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: Italy²³², *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 µg AFB₁/kg feed, o., for 169 days; for detailed information please see the article), conc.: 0.12 µg/kg* (mean value), country: Italy²³², *after 169 days

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control

incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: $50 \mu g AFB_1/kg$ feed + $50 \mu g OTA/kg$ feed, o., for 169 days; for detailed information please see the article), conc.: $0.04 \mu g/kg^*$ (mean value), country: Italy⁵¹⁵, *after 169 days

incidence: ?/?*, sa. const.: Hubbard strain

AFLATOXIN M,

laying hens, age: 14 days, contamination: no AFB₁ + OTA (for detailed information please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 μ g AFB₁/kg feed + 50 μ g OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: <0.01 μ g/kg* (mean value), country: Italy⁵¹⁵, *after 169 days

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: $\leq 4.71 \, \mu g/g^*$ **, country: USA⁸¹, *AFs or their metabolites, **after 1 day (also measured after 4 and 7 days, lowest conc.: $3.25 \, \mu g/g$ after 4 days)

OCHRATOXIN A

incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB $_1$ + OTA (for detailed information please see the article), conc.: nr, country: Italy 515 , *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: 50 μ g AFB $_1$ /kg feed + 50 μ g OTA/kg feed, o., for 169 days; for detailed information please see the article), conc.: 2.0 μ g/kg* (mean value), country: Italy 515 , *after 169 days incidence: ?/?*, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: no AFB $_1$ + OTA (for detailed information

please see the article), conc.: nr, country: Italy⁵¹⁵, *control incidence: 3?/3, sa. const.: Hubbard strain laying hens, age: 14 days, contamination: artificial (dose: $50~\mu g~AFB_1/kg$ feed + $50~\mu g~OTA/kg$ feed, o., for 87 days; for detailed information please see the article), conc. range: $<0.5~\mu g/kg^*$ (mean value), country: Italy⁵¹⁵, *33 and 82 days

Hen spleen may contain the following mycotoxins and/or their metabolites:

after withdrawal from treatment

AFLATOXINS

incidence: ?/?, sa. const.: White Leghorn hens (Cornell strain K), age: 20-22 weeks, wt.: 1,600-1,800 g, contamination: artificial (dose: 11.26 mg AFs (labeled), by stomach tube, once; for detailed information please see the article), conc. range: ≤ 12.47 µg/g* ** ***, country: USA⁸¹, *AFs or their metabolites, **after 7 days (also measured after 1 and 4 days, lowest conc.: 7.14 µg/g after 4 days), ***in spleen and kidney

ZEARALENONE

incidence: ?/4, sa. const.: White Leghorn laying hens, age: 26–39 weeks, contamination: artificial (dose: 10 mg ZEA (labeled)/kg, by gavage into the crop, once), conc. range: ≤64 µg eq ZEA/100 g wet tissue* (mean value), country: USA³⁹⁴, *after 24 h (also measured after 2, 4, 48 and 72 h, lowest conc.: 28 µg eq ZEA/100 g wet tissue after 72 h)

Hen Spleen and Kidney see Hen spleen

Hen stomach may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: OTA 0.5 ppm (feed weight), o.,

for 2 weeks), conc.: 19.8 ppb* (mean value), country: USA³¹⁶, *after 14 days incidence: 8?/8, sa. const.: New Hampshire-Leghorn cross hens, age: 24 weeks, contamination: artificial (dose: **OTA 5.0 ppm** (feed weight), o., for 2 weeks), conc.: 94.3 ppb* (mean value), country: USA³¹⁶, *after 14 days

Horse

Horse Natural Contamination

Horse liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 2?/?, sa. const.: livers from horses of Thailand and the USA, contamination: natural, conc. range: 9–18 ppb, Ø conc.: 13.5 ppb, country: Thailand/USA¹⁴¹

Horse urine may contain the following mycotoxins and/or their metabolites:

ZEARALANOLS

incidence: 47/76*, sa. const.: urine from horses of New Zealand, contamination: natural, conc. range: ≤18.8 ng/ml**, country: New Zealand²³⁰, *export animals, **most probable of *Fusarium* origin

ZEARALENOLS

incidence: 47/76*, sa. const.: urine from horses of New Zealand, contamination: natural, conc. range: ≤2,157 ng/ml, country: New Zealand²³⁰, *export animals

Lamb

Lamb Natural Contamination

Lamb urine may contain the following mycotoxins and/or their metabolites:

ZEARALANOLS

incidence: 38/90*, sa. const.: urine from lambs of New Zealand, contamination:

natural, conc. range: ≤0.77 ng/ml**, country: New Zealand²³⁰, *export animals, **most probable of *Fusarium* origin

ZEARALENOLS

incidence: 38/90*, sa. const.: urine from lambs of New Zealand, contamination: natural, conc. range: ≤34 ng/ml, country: New Zealand²³⁰, *export animals

Lamb Artificial Contamination

Lamb feces may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain³58, *control incidence: ?/12?, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 6.86–36.29 μg/kg* (mean values), Ø conc.: 17.25 μg/kg* (mean value), country: Spain³58, *during intoxication period over 21 days (measured after 7, 14* and 21 days) (for overall information please see the article)

incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain³58, *control incidence: ?/12?, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 7.95–19.66 μg/kg*, Ø conc.: 13.33 μg/kg*, country: Spain³58, *during clearance period (at the 1st, 2nd* and 4th day contamination, at the 8th day no contamination anymore) (for overall information please see the article)

AFLATOXIN G,

incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain³⁵⁸, *control

incidence: ?/?, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 1.3*-27.47** μg/kg*** (mean values), Ø conc.: 10.96 µg/kg*** (mean value), country: Spain³⁵⁸, ***during intoxication period over 21 days (measured after 7**, 14 and 21* days) (for overall information please see the article) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain³⁵⁸, *control incidence: ?/?, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 1.22-1.4 μg/kg*, Ø conc.: 1.31 µg/kg*, country: Spain³⁵⁸, *during clearance period (at the 1st* day still contamination, at the 2nd, 4th and 8th day no contamination anymore) (for overall information please see the article)

AFLATOXIN M,

incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain³⁵⁸, *control incidence: ?/?, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 8.16*-61.82** μg/kg*** (mean value), Ø conc.: 27.2 µg/kg*** (mean value), country: Spain³⁵⁸, ***during intoxication period over 21 days (measured after 7**, 14* and 21 days) (for overall information please see the article) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: ?/?, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.23*-13.94** μg/kg***, Ø conc.: 4.01 μg/

kg***, country: Spain³⁵⁸, ***during clearance period (at the 1st**, 2nd 4th and 8th* day contamination) (for overall information please see the article)

Lamb kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain³58, *control incidence: 2/12?, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: tr?*, country: Spain³58, *clearance period (8 days after removal of the contaminated diet)

AFLATOXIN B,

incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain³⁵⁸, *control incidence: 12/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.38-2.93 μg/kg*, Ø conc.: 1.29 μg/kg*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 7/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.02-0.71 μg/kg*, Ø conc.: 0.20 μg/kg*, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

AFLATOXIN B_{2a} incidence: $6/6^*$, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.:

≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 3/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.02-0.09 μg/kg, Ø conc.: 0.05 μg/kg*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 5/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.03-0.69 μg/kg*, Ø conc.: 0.19 μg/kg*, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

Aflatoxin G, incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 12/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.03-0.52 μg/kg*, Ø conc.: 0.31 μg/kg*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 3/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.01-0.04 μg/kg*, Ø conc.: 0.03 μg/kg*, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

AFLATOXIN M_1 incidence: $6/6^*$, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈ 15.3 kg, contamination: no AF, conc.: nd, country: Spain³⁵⁸, *control

incidence: 12/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.98-15.46 μg/kg*, Ø conc.: 5.45 μg/kg*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 9/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.05-1.27 μg/kg*, Ø conc.: 0.35 μg/kg*, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

Lamb liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 12/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.34-4.05 μg/kg, Ø conc.: 1.94 μg/kg*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 9/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.14-1.03 μg/kg*, Ø conc.: 0.44 μg/kg*, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

AFLATOXIN G_1 incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.: \approx 15.3 kg, contamination: no AF, conc.: nd, country: Spain³⁵⁸, *control

incidence: 11/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.03-2.94 μg/kg*, Ø conc.: 1.3 μg/kg*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 2/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.02-0.03 μg/kg*, Ø conc.: 0.025 μg/kg*, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

AFLATOXIN M, incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 12/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.10-0.72 μg/kg*, Ø conc.: 0.35 μg/kg*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 7/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.07-0.16 μg/kg*, Ø conc.: 0.12 μg/kg*, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

Lamb urine may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.:

≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 12/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.30-5.16 μg/l*, Ø conc.: 1.78 μg/l*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 3/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.07-0.19 μg/l*, Ø conc.: 0.14 μg/l*, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

AFLATOXIN B20 incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 12/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.01-0.98 μg/l, Ø conc.: 0.35 μg/l*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 10/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.09-1.26 μg/l*, Ø conc.: 0.29 μg/l*, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

AFLATOXIN G_1 incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40–45 days, wt.: \approx 15.3 kg, contamination: no AF, conc.: nd, country: Spain³⁵⁸, *control

230 Monkey

incidence: 12/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 0.46-10.52 μg/l*, Ø conc.: 2.69 μg/l*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 1/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc.: 1.67 μg/l*, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

AFLATOXIN M. incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain³⁵⁸, *control incidence: 12/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: 1.90-27.84 μg/l*, Ø conc.: 7.37 μg/l*, country: Spain³⁵⁸, *intoxication period (after 21 days of intoxication) incidence: 6/6*, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: no AF, conc.: nd, country: Spain358, *control incidence: 10/12, sa. const.: male Rasa Aragonesa lambs, age: 40-45 days, wt.: ≈15.3 kg, contamination: artificial (dose: 2.5 mg AF, o., for 21 days), conc. range: $0.22-1.13 \,\mu g/l^*$, Ø conc.: $0.54 \,\mu g/l^*$, country: Spain³⁵⁸, *clearance period (8 days after removal of the contaminated diet)

Monkey

Monkey Artificial Contamination Monkey, Macaque

Monkey, macaque bile may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 3/4*, sa. const.: female macaque monkeys, age: 38-44 months, wt.: 1.2-2.4 kg, contamination: no AFB, (for detailed information please see the article), conc. range: tr, country: USA/Thailand98, *control incidence: 15/16, sa. const.: female macaques monkeys, age: 38-44 months, wt.: 1.2-2.4 kg, contamination: artificial (dose: 0.5*, 1.5*, 4.5*, 13.5* or 40.5* mg crystalline AFB,/kg b. wt., o., once; for detailed information please see the article), conc. range: tr-163 µg/ml* **, country: USA/Thailand98, **7 days after AFB,-administration

Monkey, macaque blood may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 4/4, sa. const.: female macaque monkeys, age: 38-44 months, wt.: 1.2-2.4 kg, contamination: no AFB, (for detailed information please see the article), conc.: no specimen?, country: USA/Thailand98 incidence: 1/?*, sa. const.: female macaques monkeys, age: 38-44 months, wt.: 1.2-2.4 kg, contamination: artificial (dose: 0.5, 1.5, 4.5, 13.5 or 40.5** mg AFB,/kg b. wt., o., once; for detailed information please see the article), conc.: 37 μg/ml** ***, country: USA/Thailand98, *heart blood, ***7 days after AFB,-administration

Monkey, macaque brain may contain the following mycotoxins and/or their metabolites:

Aflatoxin B_1 incidence: 4/4, sa. const.: female macaque monkeys, age: 38–44 months, wt.:

Monkey 231

1.2–2.4 kg, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA/Thailand⁹⁸ incidence: 4/19, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: artificial (dose: **0.5**, **1.5**, **4.5**, **13.5* or 40.5* mg** AFB₁/kg b. wt., o., once; for detailed information please see the article), conc. range: tr–30 µg/kg***, country: USA/Thailand⁹⁸, **7 days after AFB₁-administration

Monkey, macaque heart may contain the following mycotoxins and/or their metabolites:

incidence: 4/4, sa. const.: female macaque

AFLATOXIN B₁

monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: no AFB₁ (for detailed information please see the article), conc.: no specimen, country: USA/Thailand⁹⁸ incidence: 6/8, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: artificial (dose: 0.5*, 1.5*, 4.5, 13.5* or 40.5 mg AFB₁/kg b. wt., o., once; for detailed information please see the article), conc. range: tr–176 μg/kg* **, country: USA/Thailand⁹⁸, **7 days after AFB₁-administration

Monkey, Macaque Heart Blood see Monkey blood

Monkey, macaque kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 4/4, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: no AFB₁ (for detailed information please see the article), conc. range: tr, country: USA/ Thailand⁹⁸

incidence: 4/16, sa. const.: female macaques monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: artificial (dose: 0.5*, 1.5*, 4.5*, 13.5* or 40.5* mg AFB₁/kg b. wt., o., once; for detailed information please see the article), conc. range: tr–162 μ g/kg* **, country: USA/ Thailand⁹⁸, **7 days after AFB₁-administration

Monkey, macaque liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 4/4, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA/ Thailand⁹⁸ incidence: 4/19, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg

incidence: 4/19, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: artificial (dose: **0.5**, **1.5**, **4.5**, **13.5* or 40.5* mg AFB**₁/kg b. wt., o., once; for detailed information please see the article), conc. range: tr–163 µg/kg* **, country: USA/Thailand⁹⁸, **7 days after AFB₁-administration

Monkey, macaque lung may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 4/4, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: no AFB₁ (for detailed information please see the article), conc.: nd?, country: USA/Thailand⁹⁸ incidence: 2/?, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: artificial (dose: 0.5, 1.5, 4.5*, 13.5* or 40.5 mg AFB₁/kg b. wt., o., once; for detailed information please see the article), conc. range: tr* **, country: USA/Thailand⁹⁸, **7 days after AFB₁-administration

232 Monkey

Monkey, macaque pancreas may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 4/4, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: no AFB₁ (for detailed information please see the article), conc.: nd?, country: USA/Thailand⁹⁸ incidence: 1/?, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: artificial (dose: **0.5**, **1.5**, **4.5**, **13.5* or 40.5 mg** AFB₁/kg b. wt., o., once; for detailed information please see the article), conc.: tr* **, country: USA/Thailand⁹⁸, **7 days after AFB₁-administration

Monkey, macaque plasma may contain the following mycotoxins and/or their metabolites:

Ochratoxin A incidence: 1/1, s

incidence: 1/1, sa. const.: female macaque monkeys, age: adult, wt.: 4 kg, contamination: artificial (dose: 50 ng OTA ng/g b. wt., o., once), conc.: 500 ng/ml, country: Sweden/Yugoslavia¹⁹³ (at different min, hour and day intervals up to 38 days measured) incidence: 1/1, sa. const.: male macaque monkey, age: adult, wt.: 5 kg, contamination: artificial (dose: 50 ng OTA ng/g b. wt., i.v., once), conc.: 980 ng/ml, country: Sweden/Yugoslavia¹⁹³ (at different min, hour and day intervals up to 38 days measured)

Monkey, macaque spleen may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 4/4, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: no AFB₁ (for detailed information please see the article), conc.: nd?, country: USA/Thailand⁹⁸

incidence: 2/?, sa. const.: female macaque monkeys, age: 38–44 months, wt.: 1.2–2.4 kg, contamination: artificial (dose: 0.5, 1.5, 4.5*, 13.5* or 40.5 mg AFB₁/kg b. wt., o., once; for detailed information please see the article), conc. range: tr* **, country: USA/Thailand⁹⁸, **7 days after AFB₁-administration

Monkey, Marmoset

Monkey, marmoset liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 4/4, sa. const.: male marmosets, age: 3-9 years, wt.: 250-406 g, contamination: artificial (dose: 100 µg AFB, (labeled)/kg, by gavage, twice; for detailed information please see the article), conc. range: 0.48-1.44 pmol [3H]-AFB eq/mg DNA* ** ***, country: USA430, *control, **AFB,-DNA adducts, ***on day 28 incidence: 4/4, sa. const.: male marmosets, age: 3-9 years, wt.: 250-406 g, contamination: artificial (dose: 100 µg AFB, (labeled)/kg, by gavage, twice; for detailed information please see the article), conc. range: 0.23-0.45 pmol [3H]-AFB eq/mg DNA* ** ***, country: USA430, *oltipraz-diet (18 mg/kg/day) for 13 days (day 16-28) at day 0 and day 26 AFB, was administered, **AFB, -DNA adducts, ***on day 28 incidence: 3/3, sa. const.: male marmosets, age: 3-9 years, wt.: 250-406 g, contamination: artificial (dose: 100 µg AFB, (labeled)/kg, by gavage, twice; for detailed information please see the article), conc. range: 0.18-0.84 pmol [3H]-AFB eq/mg DNA* ** ***, country: USA430, *EQ-diet (30 mg/kg/day) for 13 days (day 16-28) at day 0 and day 26 AFB, was administered, **AFB, -DNA adducts, ***on day 28

incidence: 1/1, sa. const.: female marmoset, age: adult, wt.: 300–350 g, contamination: artificial (dose: 2 µg AFB₁

(labeled)/kg, i.v., once; for detailed information please see the article), conc.: $\leq 122 \text{ pmol AFB}_1 \times 10^3/\text{mg protein*}$ country: Sweden⁶¹⁴, *after 15 min (also measured after 2 and 6 h, lowest conc.: 2 pmol AFB, \times 10³/mg protein after 6 h) incidence: 1/1, sa. const.: female marmoset, age: adult, wt.: 300-350 g, contamination: artificial (dose: 2 µg AFB, (labeled)/kg, i.v., once; for detailed information please see the article), conc.: $\leq 26 \text{ pmol AFB}_1\text{-metabolites} \times 10^3/\text{mg}$ protein* **, country: Sweden614, *after 15 min (also measured after 2 and 6 h. lowest conc.: 5 pmol AFB,metabolites \times 10³/mg protein after 6 h), **chloroform-soluble AFB,-metabolites incidence: 1/1, sa. const.: female marmoset, age: adult, wt.: 300-350 g, contamination: artificial (dose: 2 µg AFB, (labeled)/kg, i.v., once; for detailed information please see the article), conc.: ≤92 pmol AFB,-metabolites × 10³/mg protein* **, country: Sweden614, *after 2 h (also measured after 15 min and 6 h, lowest conc.: 38 pmol AFB,metabolites \times 10³/mg protein after 6 h), **water-soluble AFB,-metabolites incidence: 1/1, sa. const.: female marmoset, age: adult, wt.: 300-350 g, contamination: artificial (dose: 2 µg AFB, (labeled)/kg, i.v., once; for detailed information please see the article), conc.: ≤66 pmol AFB,metabolites × 10³/mg protein* **, country: Sweden⁶¹⁴, *after 2 h (also measured after 15 min and 6 h, lowest conc.: 27 pmol AFB,-metabolites \times 10³/mg protein after 15 min), **tissue-bound AFB,-metabolites

Monkey, Vervet

Monkey, vervet plasma may contain the following mycotoxins and/or their metabolites:

Fumonisin B₁ incidence: 1/1, sa. const.: male vervet monkey, age: 20–26 months, wt.: 2.10–2.32 kg, contamination: artificial (dose:

6.42 mg FB₁ (labeled)/kg b. wt., by gavage, once), conc. range: <210 ng/ml*, country: South Africa/Canada¹³⁰, *1-2 h after dosing (at 30 min and also at other hour intervals up to 7 h measured, lowest conc.: ≈38 ng/ml after 7 h).

incidence: 1/1, sa. const.: male vervet monkey, age: 20–26 months, wt.: 2.10–2.32 kg, contamination: artificial (dose: 6.42 mg FB₁ (labeled)/kg b. wt., by gavage, once), conc. range: 85 ng/ml*, country: South Africa/Canada¹³⁰, *2 h after dosing (at 30 min and also at other hour intervals up to 7 h measured, lowest conc.: ≈30 ng/ml after 0.5 and 4 h)

incidence: 2/2, sa. const.: female vervet monkeys, age: 20–43 months, weight: 2.1–3.1 kg, contamination: artificial (1.6 mg FB_1/kg b. wt., i.v., once), conc. range: ≤ 8 $\mu g/ml^*$, country: South Africa⁵³⁵, *after ≈ 10 min (also at other min intervals up to 180 min measured, lowest conc.: $< 0.2 \mu g/ml$ after 180 min)

Fumonisin B,

incidence: 1/2, sa. const.: male vervet monkeys, age: ≈11 and 13 years, wt.: 5.23 and 4.76 kg, contamination: artificial (7.5 mg FB₂/kg b. wt., by gavage, once), conc.: 25–40 ng/ml*, country: South Africa¹²⁷, *3–5 h after dosing

Mothers' Breast Milk see Human breast milk

Mouse

Mouse Artificial Contamination

Mouse amniotic fluid may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/?*, sa. const.: embryos of Slc:ICR mice, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Japan²⁸⁷,* control

incidence: ?/4, sa. const.: embryos of Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 13th day of gestation; for detailed information please see the article), conc. range: ≤409 ng/ml* ** (mean value), country: Japan²87, *in 13-day-pregnant mice, **after 24 h of OTA-administration (also at other hour intervals up to 72 h measured, lowest conc.: ≈20 ng/ml after ≈2 h)

Mouse blood may contain the following mycotoxins and/or their metabolites:

T-2 Toxin

incidence: 2?/2, sa. const.: ddYS male mice, age: 6 weeks, wt.: 30 g, contamination: artificial (dose: 1 mg T-2 toxin (labeled)/kg, o., once; for detailed information please see the article), conc.: $0.7 \mu g/ml$, country: Japan³⁸⁵, *after $\approx 1 h$ (also measured after 3, 24, 48 and 72 h)

Mouse brain may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: ?/?, sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA⁴⁹⁴ incidence: ?/?, sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: artificial (dose: **25 mg DON**/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: $0.8 \mu g/g^*$ (mean value), country: USA⁴⁹⁴, *after 5 min (also at other hour intervals up to 25 h measured)

PENITREM A

incidence: 1/1, sa. const.: male C57BL/6 mouse, age: ≈20 weeks, wt.: 30 g, contamination: artificial (dose: 8 mg PNA/kg, o., once), conc.: ≤19.2 nmol/g*, country:

Norway/New Zealand⁶³¹, *after 60 min (also measured after 30 and 120 min)

Mouse embryo may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/?*, sa. const.: embryos of Slc:ICR mice, contamination: no OTA (for detailed information please see the article), conc.: nr**, country: Japan²⁸⁷,* control, **in 11-day and 13-day embryos incidence: ?/8-13, sa. const.: embryos of Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 11th day of gestation; for detailed information please see the article), conc. range: ≤360 ng/g* ** (mean value), country: Japan²⁸⁷, *in 11-day embryos, **after 48 h of OTA-administration (also measured at other hour intervals up to 72 h, lowest conc.: almost nd after 2 h) incidence: ?/5, sa. const.: embryos of Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 13th day of gestation; for detailed information please see the article), conc. range: ≤492 ng/g* ** (mean value), country: Japan²⁸⁷, *in 13-day embryos, **after 30 h of OTA-administration (also measured at other hour intervals up to 72 h, lowest conc.: 30 ng/g after 2 h)

Mouse gastrointestinal tract may contain the following mycotoxins and/or their metabolites:

PENITREM A

incidence: 1/1, sa. const.: male C57BL/6 mouse, age: ≈20 weeks, wt.: 30 g, contamination: artificial (dose: 8 mg PNA/kg, o., once), conc.: ≤710 nmol/g*, country: Norway/New Zealand⁶³¹, *after 60 min (also measured after 30 and 120 min)

Mouse heart may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: ?/?, sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA⁴⁹⁴

incidence: ?/?, sa. const.: sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: artificial (dose: 25 mg DON/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤6.8 µg/g* (mean value), country: USA⁴⁹⁴, *after 15 min (also at other hour intervals up to 25 h measured)

Mouse intestine may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: ?/?*, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA³⁷⁰, *control

incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: artificial (dose: 5 mg DON (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤4.38 pmol [³H]DON/mg wet weight* ** (mean value), country: USA³⁷⁰, *in small intestine, **after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 0.23 pmol [³H]DON/mg wet weight after 24 h)

incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: artificial (dose: **25 mg DON** (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤13.9 pmol [³H]DON/mg wet weight* ** (mean value), country: USA³70, *in small intestine, **after 1 h (also at other hour intervals up to 24 h measured, lowest

conc.: 2.50 pmol [3H]DON/mg wet weight after 24 h)

incidence: ?/?*, sa. const.: male B6C3F1 [C57BL/6(H- 2^b) × C3H/HeN(H- 2^k) mice, age: 8–10 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA 370 , *control

incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: artificial (dose: 5 mg DON (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤2.25 pmol [³H]DON/mg wet weight* ** (mean value), country: USA³⁷⁰, *in large intestine, **after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 0.78 pmol [³H]DON/mg wet weight after 24 h)

incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: artificial (dose: **25 mg DON** (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤12.4 pmol [³H]DON/mg wet weight* ** (mean value), country: USA³70, *in large intestine, **after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 1.49 pmol [³H]DON/mg wet weight after 4 h)

Mouse kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 3?/3, sa. const.: BALB/c mice, age: 6–8 weeks, contamination: artificial (dose: 6 mg AFB₁ (labeled)/kg, i.p., once), conc.: 0.2 μmol/mol DNA* ** *** (mean value), country: USA/Taiwan, Republic of China⁴⁹, *after 4 h, **AFB₁-DNA adducts, ***measured by scintillation counting incidence: 3/3, sa. const.: BALB/c mice, age: 6–8 weeks, contamination: artificial (dose: 6 mg AFB₁ (labeled)/kg, i.p., once),

conc.: nd, country: USA/Taiwan, Republic of China⁴⁹, *after 4 h, **AFB₁-FAPy adducts, ***measured by **ELISA**

incidence: 3?/3, sa. const.: BALB/c mice, age: 6–8 weeks, contamination: artificial (dose: 12 mg AFB $_1$ (labeled)/kg, i.p., once), conc.: 2.3 µmol/mol DNA* ** *** (mean value), country: USA/Taiwan, Republic of China $_1^{49}$, *after 4 h, **AFB $_1$ -DNA adducts, *** measured by scintillation counting

incidence: 3/3, sa. const.: BALB/c mice, age: 6–8 weeks, contamination: artificial (dose: 12 mg AFB₁ (labeled)/kg, i.p., once), conc.: nd, country: USA/Taiwan, Republic of China⁴⁹, *after 4 h, **AFB₁-FAPy adducts, ***measured by ELISA

DEOXYNIVALENOL

incidence: ?/?*, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA³⁷⁰, *control

incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: artificial (dose: 5 mg DON (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤5.61 pmol [³H]DON/mg wet weight* (mean value), country: USA³70, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 0.17 pmol [³H]DON/mg wet weight after 24 h)

incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: artificial (dose: **25 mg DON** (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤19.8 pmol [³H]DON/mg wet weight* (mean value), country: USA³⁷⁰, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 4.13 pmol [³H] DON/mg wet weight after 24 h)

incidence: ?/?, sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA⁴⁹⁴ incidence: ?/?, sa. const.: sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: artificial (dose: **25 mg DON/**kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: 9.0 µg/g* (mean value), country: USA⁴⁹⁴, *after 15 min (also at other hour intervals up to 25 h measured)

incidence: ?/?, sa. const.: pathogen-free female B6C3F1 mice, age: 9–10 weeks, contamination: artificial (dose: 5 mg DON/kg b. wt., i.n., once; for detailed information please see the article), conc. range: $\le 3.73 \ \mu g/g^* **$ (mean value), country: USA⁵³⁴, *after 15 min (also measured after 30, 60 and 120 min, lowest conc.: $\approx 0.8 \ \mu g/g^{**}$ after 120 min), **DON eq.

incidence: ?/?, sa. const.: pathogen-free female B6C3F1 mice, age: 9–10 weeks, contamination: artificial (dose: 5 mg DON/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤1.76 μg/g* ** (mean value), country: USA⁵³⁴, *after 15 min (also measured after 30, 60 and 120 min, lowest conc.: ≈0.6 μg/g** after 120 min), **DON eq.

OCHRATOXIN A

incidence: ?/9, sa. const.: pregnant Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 11th day of gestation; for detailed information please see the article), conc. range: ≈≤9 μg/g* (mean value), country: Japan²87, *after 2 h of OTA-administration (also at other hour intervals up to 72 h measured, lowest conc.: ≈0.25 μg/g after 72 h) incidence: ?/?*, sa. const.: embryos of Slc:ICR mice, contamination: no OTA (for detailed information please see the article), conc.: nr**, country: Japan²87,* control, **on day 11 of gestation

incidence: ?/5, sa. const.: pregnant Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 13th day of gestation; for detailed information please see the article), conc. range: $\approx \le 6 \,\mu g/g^*$ (mean value), country: Japan²⁸⁷, *after 2 h of OTA-administration (also at other hour intervals up to 72 h measured, lowest conc.: $\approx 0.2 \,\mu g/g$ after 72 h) incidence: ?/?*, sa. const.: embryos of Slc:ICR mice, contamination: no OTA (for detailed information please see the article), conc.: nr**, country: Japan²⁸⁷,* control, **on day 13 of gestation

PENITREM A

incidence: 1/1, sa. const.: male C57BL/6 mouse, age: ≈20 weeks, wt.: 30 g, contamination: artificial (dose: 8 mg PNA/kg, o., once), conc.: ≤35.1 nmol/g*, country: Norway/New Zealand⁶³¹, *after 60 min (also measured after 30 and 120 min)

Mouse liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: ?/?*, sa. const.: male C57BL mice, weight: 16-20 g, contamination: artificial no AFB, conc.: nr, country: France/Japan²⁴, *control incidence: ?/?, sa. const.: male C57BL mice, wt.: 16-20 g, contamination: artificial (dose: 20 µg AFB,/kg/day, by gavage, daily for up to 14 days), conc.: 0.44 pmol AFB,-FAPy/mg DNA* ** (mean value), country: France/Japan²⁴, *animals killed after 24 h of final treatment, **AFB, -DNA adduct incidence: ?/?, sa. const.: male C57BL mice, wt.: 16-20 g, contamination: artificial (dose: 80 μg AFB₁/kg/day, by gavage, daily for up to 14 days), conc.: ≈1 pmol AFB,-FAPy/mg DNA* ** (mean value), country: France/Japan²⁴, *after 1 and 14 days of AFB,-administration, **AFB,-DNA adducts

incidence: 3?/3, sa. const.: BALB/c mice, age: 6-8 weeks, contamination: artificial (dose: 6 mg AFB, (labeled)/kg, i.p., once), conc.: 1 µmol/mol DNA* ** *** (mean value), country: USA/Taiwan, Republic of China49, *after 4 h, **AFB, -DNA adducts, ***measured by scintillation counting incidence: 3/3, sa. const.: BALB/c mice, age: 6-8 weeks, contamination: artificial (dose: 6 mg AFB, (labeled)/kg, i.p., once), conc.: nd, country: USA/Taiwan, Republic of China49, *after 4 h, **AFB, -FAPy adducts, *** measured by ELISA incidence: 3?/3, sa. const.: BALB/c mice, age: 6-8 weeks, contamination: artificial (dose: 12 mg AFB, (labeled)/kg, i.p., once), conc.: 65.1 µmol/mol DNA* ** *** (mean value), country: USA/Taiwan, Republic of China⁴⁹, *after 4 h, **AFB₁-DNA adducts, ***measured by scintillation counting incidence: 3?/3, sa. const.: BALB/c mice, age: 6-8 weeks, contamination: artificial (dose: 12 mg AFB, (labeled)/kg, i.p., once), conc.: 41.7 µmol/mol DNA* ** *** (mean value), country: USA/Taiwan, Republic of China49, *after 4 h, **AFB, -FAPy adducts, ***measured by ELISA

incidence: ?/6*, sa. const.: male Swiss-Webster mice, wt.: 28-32 g, contamination: artificial (dose: 0.25 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 6.24 adducts/107 nucleotides** *** (mean value), country: USA511, *control, **after 2 h, ***AFB-DNA adducts incidence: ?/6*, sa. const.: male Swiss-Webster mice, wt.: 28-32 g, contamination: artificial (dose: 0.25 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc. range: 184 adducts/107 nucleotides** *** (mean value), country: USA⁵¹¹, *control, on day 14 BSO (0.6 g/kg i.p.) and (DEM 0.75 ml/kg i.p.) at 2 and 15 h prior to AFB,-treatment, **after 2 h, ***AFB-DNA adducts incidence: ?/7*, sa. const.: male Swiss-

Webster mice, wt.: 28-32 g, contamination:

artificial (dose: 0.25 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc. range: 3.39 adducts/107 nucleotides** *** (mean value), country: USA⁵¹¹, *BHA-diet (0.75%) for 14 days prior to AFB, -treatment, **after 2 h, ***AFB-DNA adducts incidence: ?/7*, sa. const.: male Swiss-Webster mice, wt.: 28-32 g, contamination: artificial (dose: 0.25 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc. range: 5.51 adducts/107 nucleotides** *** (mean value), country: USA511, *BHA-diet (0.75%) for 14 days + on day 14 BSO (0.6 g/kg i.p.) and (DEM 0.75 ml/kg i.p.) at 2 and 15 h prior to AFB,-treatment, **after 2 h, ***AFB-DNA adducts

incidence: 3?/3*, sa. const.: female CD-1 mice, wt.: 25-30 g, contamination: artificial (dose: 0.25 mg AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: ≈ 4 AFB adduct/ 10^7 DNA nucleotides** (mean value), country: USA 616 , *control, **after 2 h

incidence: 3?/3, sa. const.: female CD-1 mice, wt.: 25–30 g, contamination: artificial (dose: 0.25 mg AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: ≈1 AFB adduct/10⁷ DNA nucleotides* ** (mean value), country: USA⁶¹⁶, *BHA-diet (0.75%) for 10 days prior to AFB₁-treatment, **after 2 h

DEOXYNIVALENOL

incidence: ?/?*, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA³⁷⁰, *control

incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: artificial (dose: 5 mg DON (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤4.88 pmol [³H]DON/mg wet weight*

(mean value), country: USA³⁷⁰, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 0.30 pmol [³H] DON/mg wet weight after 24 h)

incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8-10 weeks, contamination: artificial (dose: 25 mg DON (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤18.4 pmol [³H]DON/mg wet weight* (mean value), country: USA³⁷⁰, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 2.29 pmol [³H] DON/mg wet weight after 24 h)

incidence: ?/?, sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: no DON; for detailed information please see the article), conc.: nr, country: USA⁴⁹⁴ incidence: ?/?, sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: artificial (dose: 25 mg DON/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: 19.6 μg/g* (mean value), country: USA⁴⁹⁴, *after 5 min (also at other hour intervals up to 25 h measured)

incidence: ?/?, sa. const.: pathogen-free female B6C3F1 mice, age: 9–10 weeks, contamination: artificial (dose: 5 mg DON/kg b. wt., i.n., once; for detailed information please see the article), conc. range: \leq 2.37 μ g/g* ** (mean value), country: USA⁵³⁴, *after 30 min (also measured after 15, 60 and 120 min, lowest conc.: \approx 0.6 μ g/g** after 120 min), **DON eq.

incidence: ?/?, sa. const.: pathogen-free female B6C3F1 mice, age: 9–10 weeks, contamination: artificial (dose: 5 mg DON/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤1.10 µg/g* ** (mean value), country: USA⁵³⁴, *after 15 min (also measured after 30, 60 and 120 min,

lowest conc.: ≈0.4 µg/g** after 120 min), **DON eq.

OCHRATOXIN A

incidence: ?/9, sa. const.: pregnant Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 11th day of gestation; for detailed information please see the article), conc. range: ≈≤10.5 μ g/g* (mean value), country: Japan²⁸⁷, *after 2 h of OTA-administration (also at other hour intervals up to 72 h measured, lowest conc.: ≈0.35 µg/g after 48 h) incidence: ?/?*, sa. const.: embryos of

Slc:ICR mice, contamination: no OTA (for detailed information please see the article), conc.: nr**, country: Japan287, *control, **on day 11 of gestation incidence: ?/5, sa. const.: pregnant Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 13th day of gestation; for detailed information please see the article), conc. range: $\approx \le 8.5 \text{ µg/g}^*$ (mean value), country: Japan²⁸⁷, *after 2 h of OTA-administration (also at other hour intervals up to 72 h measured, lowest conc.: $\approx 0.5 \mu g/g$ after 72 h) incidence: ?/?*, sa. const.: embryos of Slc:ICR mice, contamination: no OTA (for detailed information please see the article), conc.: nr**, country: Japan²⁸⁷,* control, **on day 13 of gestation

PENITREM A

incidence: 1/1, sa. const.: male C57BL/6 mouse, age: ≈20 weeks, wt.: 30 g, contamination: artificial (dose: 8 mg PNA/kg, o., once), conc.: ≤117 nmol/g*, country: Norway/New Zealand⁶³¹, *after 60 min (also measured after 30 and 120 min)

Mouse lung may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: ?/?, sa. const.: pathogen-free female B6C3F1 mice, age: 9-10 weeks,

contamination: artificial (dose: 5 mg DON/ kg b. wt., i.n., once; for detailed information please see the article), conc. range: ≤2.20 µg/g* ** (mean value), country: USA⁵³⁴, *after 30 min (also measured after 15,60 and 120 min, lowest conc.: ≈0.5 µg/g** after 120 min), **DON eq. incidence: ?/?, sa. const.: pathogen-free female B6C3F1 mice, age: 9-10 weeks, contamination: artificial (dose: 5 mg DON/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤0.95 µg/g* ** (mean value), country: USA534, *after 15 min (also measured after 30, 60 and 120 min, lowest conc.: ≈0.3 μg/g** after 120 min), **DON eq.

GLIOTOXIN

incidence: ?/10*, sa. const.: female Swisswebster mice, age: 38-44 months, wt.: 20-25 g, contamination: no Aspergillus fumigatus (for detailed information please see the article), conc.: 3,976 ng/g (mean value), country: USA78, *control incidence: ?/10*, sa. const.: female Swiss-webster mice, age: 38-44 months, wt.: 20-25 g, contamination: artificial (dose: Aspergillus fumigatus addition; for detailed information please see the article), conc.: ≈1,150 ng/g (mean value), country: USA78, *AMB deoxycholate (0.25 mg/kg/day) i.p. daily until 96 h after A. fumigatus inoculation incidence: ?/20*, sa. const.: female Swiss-

webster mice, age: 38-44 months, wt.: 20-25 g, contamination: artificial (dose: Aspergillus fumigatus addition; for detailed information please see the article), conc.: ≈1,800 ng/g (mean value), country: USA78, *AMB deoxycholate (0.5 mg/kg/day) i.p. daily until 96 h after A. fumigatus inoculation incidence: ?/15*, sa. const.: female Swiss-webster mice, age: 38-44 months, wt.: 20-25 g, contamination: artificial (dose: Aspergillus fumigatus addition; for

detailed information please see the article), conc.: ≈1,900 ng/g (mean value), country: USA⁷⁸, *AMB deoxycholate (1 mg/kg/day) i.p. daily until 96 h after *A. fumigatus* inoculation

Mouse milk may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/?, sa. const.: lactating mice (strain-HA/ICR), Ø wt.: 50 g, contamination: artificial (dose: 5 μ g AFB $_1$ (labeled and unlabeled)/mouse, i.p., once; for detailed information please see the article), conc. range: \leq 7 ng/ml (mean value), country: USA 124 , *after 1 h (also measured after 3 and 10 h, lowest conc.: 3.1 ng/ml after 10 h)

AFLATOXIN M,

incidence: ?/4–5, sa. const.: lactating mice (strain-HA/ICR), Ø wt.: 50 g, contamination: artificial (dose: 5 µg AFB₁ (labeled and unlabeled)/mouse, i.p., once), conc. range: ≤7.0 ng/ml* (mean value), country: USA¹²⁴, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 0.6 ng/ml after 24 h) incidence: ?/4–5, sa. const.: lactating mice (strain-HA/ICR), Ø wt.: 50 g, contamination: artificial (dose: 50 µg AFB₁/mouse, i.p., once), conc. range: ≤63.3 ng/ml* (mean value), country: USA¹²⁴, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 1.6 ng/ml after 24 h)

Mouse Peyer's patches may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: ?/?*, sa. const.: male B6C3F1 [C57BL/6(H- 2^b) × C3H/HeN(H- 2^k) mice, age: 8–10 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA 370 , *control incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H- 2^b) × C3H/HeN(H- 2^k) mice, age: 8–10 weeks, contamination: artificial

(dose: 5 mg DON (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤1.89 pmol [3H]DON/mg wet weight* (mean value), country: USA370, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 0.13 pmol [3H] DON/mg wet weight after 24 h) incidence: 3?/3, sa. const.: male B6C3F1 $[C57BL/6(H-2^b) \times C3H/HeN(H-2^k)$ mice, age: 8-10 weeks, contamination: artificial (dose: 25 mg DON (labeled)/kg b.w., by o. gavage, once; for detailed information please see the article), conc. range: ≤1.95 pmol [3H]DON/mg wet weight* (mean value), country: USA370, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 0.82 pmol [3H] DON/mg wet weight after 24 h)

Mouse placenta may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/9, sa. const.: pregnant Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 11th day of gestation; for detailed information please see the article), conc. range: $\approx \le 4.6 \,\mu\text{g/g}^*$ (mean value), country: Japan²⁸⁷, *after 2 h of OTA-administration (also at other hour intervals up to 72 h measured, lowest conc.: $\approx 1 \mu g/g$ after 72 h) incidence: ?/?*, sa. const.: embryos of Slc:ICR mice, contamination: no OTA (for detailed information please see the article), conc.: nr**, country: Japan²⁸⁷, *control, **on day 11 of gestation incidence: ?/5, sa. const.: pregnant Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 13th day of gestation; for detailed information please see the article), conc. range: ≈≤3.1 µg/g* (mean value), country: Japan²⁸⁷, *after 2 h of OTAadministration (also at other hour intervals up to 72 h measured, lowest conc.: $\approx 0.7 \,\mu\text{g/g}$ after 72 h)

incidence: ?/?*, sa. const.: embryos of Slc:ICR mice, contamination: no OTA (for detailed information please see the article), conc.: nr**, country: Japan²⁸⁷, *control, **on day 13 of gestation

Mouse plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence:?/?*, sa. const.: male C57BL mice, weight: 16-20 g, contamination: artificial no AFB, conc.: nr, country: France/Japan²⁴, *control incidence:?/?, sa. const.: male C57BL mice, weight: 16-20 g, contamination: artificial (dose: 20 µg AFB,/kg/day, by gavage, daily for up to 14 days), conc.: ndr* (for detailed information please see the article), country: France/Japan²⁴, *AFB,albumin adducts incidence:?/?, sa. const.: male C57BL mice, weight: 16-20 g, contamination: artificial (dose: 80 µg AFB,/kg/day, by gavage, daily for up to 14 days), conc. range: ≤13.4 pg AFB,-lysine eq/mg albumin* ** (mean values), country: France/Japan²⁴, *animals killed after 24 h of final treatment (also measured after 1, 3 and 7 days, lowest conc.: ≈nd after 1 day), **AFB, -albumin adducts

DEOXYNIVALENOL

incidence: ?/?*, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA³⁷⁰, *control

incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: artificial (dose: 5 mg DON (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤4.42 pmol [³H]DON/µl* (mean value), country: USA³⁷⁰, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 0.29 pmol [³H] DON/µl after 24 h)

incidence: 3?/3, sa. const.: male B6C3F1 [C57BL/6(H-2^b) × C3H/HeN(H-2^k) mice, age: 8–10 weeks, contamination: artificial (dose: 25 mg DON (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤22.3 pmol [³H] DON/µl* (mean value), country: USA³⁷⁰, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 2.59 pmol [³H]DON/µl after 24 h)

incidence: ?/?, sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA⁴⁹⁴ incidence: ?/?, sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: artificial (dose: **25 mg DON**/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: \leq 12.1 µg/ml (mean value), country: USA⁴⁹⁴, *after 5 min (also at other hour intervals up to 25 h measured)

incidence: 3/3, sa. const.: male B6C3F1 $(C57B1/6J \times C3H/HeJ)$ mice, age: 7 weeks, contamination: no DON (for detailed information please see the article), conc.: nd, country: USA494 incidence: ?/3, sa. const.: male B6C3F1 $(C57B1/6J \times C3H/HeJ)$ mice, age: 7 weeks, contamination: artificial (dose: 2 mg DON/kg diet, o., for 4 weeks (subchronic dietary exposure); for detailed information please see the article), conc.: 20 ng/ml (mean value), country: USA494, *after 4 weeks incidence: ?/3, sa. const.: male B6C3F1 $(C57B1/6J \times C3H/HeJ)$ mice, age: 7 weeks, contamination: artificial (dose: 5 mg DON/kg diet, o., for 4 weeks (subchronic dietary exposure); for detailed information please see the article), conc.: ≈33 ng/ml (mean value), country: USA⁴⁹⁴, *after 4 weeks incidence: ?/3, sa. const.: male B6C3F1 $(C57B1/6J \times C3H/HeJ)$ mice, age: 7 weeks, contamination: artificial (dose: 10 mg DON/kg diet, o., for 4 weeks (subchronic

dietary exposure); for detailed

information please see the article), conc.: ≈58 ng/ml (mean value), country: USA⁴⁹⁴, *after 4 weeks incidence: ?/3, sa. const.: male B6C3F1 (C57B1/6J × C3H/HeJ) mice, age: 7 weeks, contamination: artificial (dose: **20 mg DON**/kg diet, o., for 4 weeks (subchronic dietary exposure); for detailed information please see the article), conc.: 100 ng/ml (mean value), country: USA⁴⁹⁴, *after 4 weeks

incidence: ?/?, sa. const.: pathogen-free female B6C3F1 mice, age: 9–10 weeks, contamination: artificial (dose: 5 mg DON/kg b. wt., i.n., once; for detailed information please see the article), conc. range: $\approx \le 3.4 \ \mu g/ml^* ** (mean value)$, country: USA 534 , *after 30 min (also measured after 15, 60 and 120 min, lowest conc.: $\approx 0.5 \ \mu g/ml^{**}$ after 120 min), **DON eq.

incidence: ?/?, sa. const.: pathogen-free female B6C3F1 mice, age: 9–10 weeks, contamination: artificial (dose: 5 mg DON/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: $\approx \le 1.0 \,\mu\text{g/ml}^* **$ (mean value), country: USA⁵³⁴, *after 15 min (also measured after 30, 60 and 120 min, lowest conc.: $\approx 0.2 \,\mu\text{g/ml}^**$ after 120 min), **DON eq.

OCHRATOXIN A

incidence: ?/?, sa. const.: white male NIH-Bethesda mice, wt.: ≈20 g, contamination: artificial (dose: 50 ng OTA ng/g b. wt., o., once), conc.: 370 ng/ml (mean value), country: Sweden/Yugoslavia¹⁹³ (at different min, hour and day intervals up to 7 days measured) incidence: ?/?, sa. const.: white male NIH-Bethesda mice, wt.: ≈20 g, contamination: artificial (dose: 50 ng OTA ng/g b. wt., i.v., once), conc.: 370 ng/ml (mean value), country: Sweden/Yugoslavia¹⁹³ (at different min, hour and day intervals up to 7 days measured)

Mouse serum may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: ?/11*, sa. const.: female HBV-transgenic mice of the linea 50–4 mated with nontransgenic C57 male mice, age: 3 months, contamination: artificial (dose: 1.0 mg AFB₁ (labeled)/kg b. wt., once?; for detailed information please see the article), conc.: 4.84 ng AFB₁/mg albumin** *** **** (mean value), country: France/USA¹⁶, *HBV-positive, **after 24 h, ***AFB₁-albumin adducts, ****P450 nd incidence: ?/11*, sa. const.: female

incidence: ?/11*, sa. const.: female HBV-transgenic mice of the linea 50–4 mated with nontransgenic C57 male mice, age: 3 months, contamination: artificial (dose: 1.0 mg AFB₁ (labeled)/kg b.w., once?; for detailed information please see the article), conc.: 4.01 ng AFB₁/mg albumin** *** **** (mean value), country: France/USA¹⁶, *HBV-negative, **after 24 h, ***AFB₁-albumin adducts, ****P450 nd

incidence: ?/7*, sa. const.: female HBVtransgenic mice of the linea 50-4 mated with nontransgenic C57 male mice, age: 9 months, contamination: no AFB, (for detailed information please see the article), conc.: nd** *** (mean value), country: France/USA16 *HBV-positive, **after 24 h, ***together with 0.56 nmol P450/mg microsomal protein measured incidence: ?/8*, sa. const.: female HBVtransgenic mice of the linea 50-4 mated with nontransgenic C57 male mice, age: 9 months, contamination: no AFB, (for detailed information please see the article), conc.: nd** *** (mean value), country: France/USA16, *HBV-negative, **after 24 h, ***together with 0.58 nmol P450/mg microsomal protein measured incidence: ?/10*, sa. const.: female HBV-transgenic mice of the linea 50-4 mated with nontransgenic C57 male mice, age: 12 months, contamination: artificial

(dose: 1.0 mg AFB, (labeled)/kg b. wt., once?; for detailed information please see the article), conc.: 5.22 ng AFB /mg albumin** *** **** (mean value), country: France/USA16, *HBV-positive, **after 24 h, ***AFB, -albumin adducts, ****together with 0.50 nmol P450/mg microsomal protein measured incidence: ?/9*, sa. const.: female HBV-transgenic mice of the linea 50-4 mated with nontransgenic C57 male mice, age: 12 months, contamination: artificial (dose: 1.0 mg AFB, (labeled)/kg b. wt., once?; for detailed information please see the article), conc.: 7.33 ng AFB,/mg albumin** *** **** (mean value), country: France/USA16, *HBV-negative, **after 24 h, ***AFB, -albumin adducts, ****together with 0.7 nmol P450/mg microsomal protein measured

GLIOTOXIN

incidence: ?/10*, sa. const.: female Swiss-Webster mice, age: 38-44 months, wt.: 20-25 g, contamination: no Aspergillus fumigatus (for detailed information please see the article), conc.: 37 ng/ml (mean value), country: USA78, *control incidence: ?/10*, sa. const.: female Swisswebster mice, age: 38-44 months, wt.: 20-25 g, contamination: artificial (dose: Aspergillus fumigatus addition; for detailed information please see the article), conc.: ≈11 ng/mg (mean value), country: USA78, *AMB deoxycholate (0.25 mg/kg/day) i.p. daily until 96 h after A. fumigatus inoculation incidence: ?/20*, sa. const.: female Swisswebster mice, age: 38-44 months, wt.: 20–25 g, contamination: artificial (dose: Aspergillus fumigatus addition; for detailed information please see the article), conc.: ≈10.5 ng/mg (mean value), country: USA78, *AMB deoxycholate (0.5 mg/kg/day) i.p. daily until 96 h after A. fumigatus inoculation incidence: ?/15*, sa. const.: female Swisswebster mice, age: 38-44 months, wt.: 20–25 g, contamination: artificial (dose:

Aspergillus fumigatus addition; for detailed information please see the article), conc.: ≈3.5 ng/mg (mean value), country: USA⁷⁸, *AMB deoxycholate (1 mg/kg/day) i.p. daily until 96 h after A. fumigatus inoculation

OCHRATOXIN A

incidence: ?/?*, sa. const.: pregnant Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 11th day of gestation; for detailed information please see the article), conc. range: ≈≤49 µg/ml** (mean value), country: Japan²⁸⁷, *maternal serum, **after 2 h of OTA-administration (also at other hour intervals up to 72 h measured, lowest conc.: ≈5 μg/g after 72 h) incidence: ?/?*, sa. const.: embryos of Slc:ICR mice, contamination: no OTA (for detailed information please see the article), conc.: nr**, country: Japan²⁸⁷, *control, **on day 11 of gestation incidence: ?/5*, sa. const.: pregnant Slc:ICR mice, contamination: artificial (dose: 5 mg crystalline OTA/kg, i.p., once at 13th day of gestation; for detailed information please see the article), conc. range: ≈≤49 µg/ml** (mean value), country: Japan²⁸⁷, *maternal serum, **after 2 h of OTA-administration (also at other hour intervals up to 72 h measured, lowest conc.: ≈3 µg/g after 72 h) incidence: ?/?*, sa. const.: embryos of Slc:ICR mice, contamination: no OTA (for detailed information please see the article), conc.: nr**, country: Japan²⁸⁷, *control, **on day 13 of gestation

Mouse spleen may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: ?/?*, sa. const.: male B6C3F1 [C57BL/6(H- 2^b) × C3H/HeN(H- 2^k) mice, age: 8–10 weeks, contamination: no DON (for detailed information please see the article), conc.: nr, country: USA 370 , *control

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incidence: 3?/3, sa. const.: male B6C3F1 $[C57BL/6(H-2^b) \times C3H/HeN(H-2^k)$ mice, age: 8-10 weeks, contamination: artificial (dose: 5 mg DON (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤2.29 pmol [3H]DON/mg wet weight* (mean value), country: USA370, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 0.08 pmol [3H] DON/mg wet weight after 24 h) incidence: 3?/3, sa. const.: male B6C3F1 $[C57BL/6(H-2^b) \times C3H/HeN(H-2^k)$ mice, age: 8-10 weeks, contamination: artificial (dose: 25 mg DON (labeled)/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤6.58 pmol [3H]DON/mg wet weight* (mean value), country: USA370, *after 0.5 h (also at other hour intervals up to 24 h measured, lowest conc.: 0.87 pmol [3H] DON/mg wet weight after 24 h)

incidence: ?/?, sa. const.: male B6C3F1 $(C57B1/6I \times C3H/HeI)$ mice, age: 7 weeks, contamination: no DON; for detailed information please see the article), conc.: nr, country: USA494 incidence: ?/?, sa. const.: male B6C3F1 $(C57B1/6J \times C3H/HeJ)$ mice, age: 7 weeks, contamination: artificial (dose: 25 mg DON/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤7.9 μg/g* (mean value), country: USA494, *after 15 min (also at other hour intervals up to 25 h measured)

incidence: ?/?, sa. const.: pathogen-free female B6C3F1 mice, age: 9-10 weeks, contamination: artificial (dose: 5 mg DON/kg b. wt., i.n., once; for detailed information please see the article), conc. range: ≤1.87 µg/g* ** (mean value), country: USA534, *after 15 min (also measured after 30, 60 and 120 min, lowest conc.: ≈0.4 µg/g** after 120 min), **DON eq. incidence: ?/?, sa. const.: pathogen-free

female B6C3F1 mice, age: 9-10 weeks,

contamination: artificial (dose: 5 mg DON/kg b. wt., by o. gavage, once; for detailed information please see the article), conc. range: ≤0.77 µg/g* ** (mean value), country: USA534, *after 15 min (also measured after 30, 60 and 120 min, lowest conc.: ≈0.2 μg/g** after 120 min), **DON eq.

Pig

Pig Natural Contamination

Pig bile may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤21.2 ng/ml** (mean value), country: Germany⁴⁷⁵, *fed **organic diet** (wheat variety: Contur), **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤34.8 ng/ml** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: Contur), **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤19.2 ng/ml** (mean value), country: Germany⁴⁷⁵, *fed **organic diet** (wheat variety: Batis), **in the year 2000, further data of the years 1999 and 2001 in the article incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc.: ±15.6 ng/ml**

(mean value), country: Germany⁴⁷⁵, *fed

conventional diet (wheat variety: *Batis*), **in the year 2000, further data of the years 1999 and 2001 in the article incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤6.9 ng/ml** (mean value), country: Germany⁴⁷⁵, *fed organic diet (wheat variety: *Petrus*), **in the year 2001, further data of the year 2000 in the article

incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤49.2 ng/ml** (mean value), country: Germany⁴⁷⁵, *fed **conventional diet (wheat variety:** *Petrus*), **in the year 2001, further data of the year 2000 in the article

ZEARALENONE

incidence: 764/794, sa. const.: breeding sows, contamination: natural, conc. range: ≤220.4 ng/g*, country: Germany⁴⁰⁴, *ZEA and/or ZEA derivatives incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤54.0 ng/ml** (mean value), country: Germany475, *fed organic diet (wheat variety: Contur), **sum of ZEA, α - and β -ZEAOL, **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc.: ±94.7 ng/ml** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: Contur), **sum of ZEA, α - and β -ZEAOL, **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please

see the article), conc. range: ≤81.0 ng/ml** (mean value), country: Germany475, *fed organic diet (wheat variety: Batis), **sum of ZEA, α - and β -ZEAOL, **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc.: ±92.4 ng/ml** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: Batis), **sum of ZEA, α and β-ZEAOL, **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤44.5 ng/ml** (mean value), country: Germany⁴⁷⁵, *fed organic diet (wheat variety: Petrus), **sum of ZEA, α and β-ZEAOL, **in the year 2000, further data of the year 2001 in the article incidence: 6?/6*, sa. const.: Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤80.6 ng/ml** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: Petrus), **sum of ZEA, α - and β -ZEAOL, **in the year 2000, further data of the year 2001 in the article incidence: 52/52, sa. const.: gilts with reproductive problems, contamination: natural, conc. range: ≤40.0 ng/ml, country: Germanv⁵²⁶

$\alpha\text{-}Z\text{earalenol}$

incidence: 52/52, sa. const.: gilts with reproductive problems, contamination: natural, conc. range: ≤66.1 ng/ml, country: Germany⁵²⁶

Pig blood may contain the following mycotoxins and/or their metabolites:

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OCHRATOXIN A

incidence: 40/261, sa. const.: blood from pigs of Germany, contamination: natural, conc. range: ≤2.05 ppb, country: Germany²⁶⁴

incidence: 147/255, sa. const.: blood from pigs of Czechoslovakia, contamination: natural, conc. range: 0.1–1 μg/l (98 sa), 1–5 μg/l (44 sa), 5–20 μg/l (5 sa), Ø conc.: 1.9 μg/l, country: Czechoslovakia²⁸¹

incidence: 36/195, sa. const.: blood from pigs of Poland, contamination: natural, conc. range: 3–270 ng/ml, country: Poland/Sweden³⁰⁴

incidence: 47/279, sa. const.: blood from slaughter pigs of Sweden, contamination: natural, conc. range: 2–187 ng/ml, Ø conc.: 15.74 ng/ml, country: Sweden³⁰⁶ incidence: 26/45*, sa. const.: blood from pigs of Poland, contamination: natural, conc. range: ≤69.5 ng/ml, country: Poland³²⁶, *blood serum

incidence: 63/105*, sa. const.: blood from pigs of Poland, contamination: natural, conc. range: ≤122 ng/ml, country: Poland³²⁷, *blood serum

incidence: 910/1200, sa. const.: blood from pigs of Canada, contamination: natural, conc. range: <10 ng/ml (774 sa), 10–20 ng/ml (87 sa), 20–50 ng/ml (36 sa), 50–100 ng/ml (8 sa), 100–150 ng/ml (2 sa), 150–200 ng/ml (2 sa), 229 ng/ml (1 sa), country: Canada³³⁴

incidence: 26/122, sa. const.: blood from slaughter pigs of Sweden, contamination: natural, conc. range: 2.0–62 ng/ml, Ø conc.: 8.69 ng/ml, country: Sweden³⁷¹

incidence: 6/38, sa. const.: blood from pigs of Yugoslavia, contamination: natural, conc. range: 36–77 μg/l, country: Crotia/Yugoslavia³⁹³

incidence: 179/359*, sa. const.: blood from pigs of Sweden, contamination: natural, conc. range: ≥2 ng/ml (136 sa), ≥5 ng/ml (29 sa), ≥10 ng/ml (14 sa), Ø conc.: 8.2 ng/ml, country: Sweden⁴¹¹, *fed with short stored grain

incidence: 94/174*, sa. const.: blood from pigs of Sweden, contamination: natural, conc. range: ≥2 ng/ml (49 sa), ≥5 ng/ml (29 sa), ≥10 ng/ml (16 sa), Ø conc.: 13.2 ng/ml, country: Sweden⁴¹¹, *fed with long stored grain

Pig digesta may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 1/1, sa. const.: digesta from a pig of Germany?, contamination: natural, conc.: 145 ng/g, country: Germany³⁶⁴

DEEPOXYDEOXYNIVALENOL

incidence: 1/1, sa. const.: digesta from a pig of Germany?, contamination: natural, conc.: 274 ng/g, country: Germany³⁶⁴

Pig kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M,

incidence: 1/40, sa. const.: kidneys from pigs of Brazil, contamination: natural, conc.: tr, country: Brazil²⁴⁹

CITRININ

incidence: 9/125, sa. const.: kidneys from sows of the UK, contamination: natural, conc. range: 0.1–<1 μg/kg (1 sa), 1–<5 μg/kg (4 sa), 5–<10 μg/kg (2 sa), >10 μg/kg (2 sa), country: UK²⁸⁹

OCHRATOXIN A

incidence: 41/300, sa. const.: kidneys from pigs of Germany, contamination: natural, conc. range: $0.5-10~\mu g/kg$, country: Germany²⁶³

incidence: 6/54, sa. const.: kidneys from pigs of Germany, contamination: natural, conc. range: ≤0.75 ppb, country: Germany²64

incidence: 1/63*, sa. const.: kidneys from pigs of Czechoslovakia, contamination: natural, conc.: 2.8 µg/kg, country: Czechoslovakia²⁸¹, *healthy incidence: 20/96*, sa. const.: kidneys from pigs of Czechoslovakia, contamination:

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natural, conc. range: $1-5~\mu g/kg~(18~sa)$, $5-20~\mu g/kg~(2~sa)$, country: Czechoslovakia²⁸¹, *macroscopic lesions incidence: 136/378, sa. const.: kidneys from sows of the UK, contamination: natural, conc. range: $0.5-<1~\mu g/kg~(53~sa)$, $1-<5~\mu g/kg~(68~sa)$, $5-<10~\mu g/kg~(10~sa)$, $10-<25~\mu g/kg~(4~sa)$, $>25~\mu g/kg~(1~sa)$, country: UK²⁸⁹

incidence: 22/104*, sa. const.: kidneys from pigs of Germany, contamination: natural, conc. range: $0.1-1.8 \mu g/kg$, Ø conc.: $0.45 \mu g/kg$, country: Germany²⁹¹, *suspected

incidence: 20/20*, sa. const.: kidneys from pigs of Denmark, contamination: natural, conc. range: 0.2–195.5 μ g/kg, Ø conc.: 34.24 μ g/kg, country: Germany ²⁹¹, *suspected

incidence: 12/36, sa. const.: kidneys from pigs of Switzerland, contamination: natural, conc. range: 0.1–0.2 μg/kg (11 sa), 0.3 μg/kg (1 sa), country: Switzerland²⁹² incidence: 4498/7639, sa. const.: kidneys from pigs of Denmark, contamination: natural, conc. range: >25 μg/kg (4293 sa), >150 μg/kg (205 sa), country: Denmark²⁹⁵ incidence: 238/10, sa. const.: kidneys from pigs of France, contamination: natural, conc. range: tr (184 sa), 0.5-5 μg/kg (54 sa), country: France297

incidence: 21/71*, sa. const.: kidneys from pigs of Czechoslovakia, contamination: natural, conc. range: 1–5 μ g/kg (18 sa), 5–20 μ g/kg (3 sa), country: Czechoslovakia³⁰⁰, *suspected

incidence: 27/113*, sa. const.: kidneys from pigs of Poland, contamination: natural, conc. range: tr-23 ng/g, country: Poland/Sweden³⁰⁴, *suspected

incidence: 52/122*, sa. const.: kidneys from pigs of Poland, contamination: natural, conc. range: 1≤x<2 ng/g (27 sa), 2≤x<10 ng/g (25 sa), country: Poland/Sweden³⁰⁵, *suspected

incidence: 24/90, sa. const.: kidneys from pigs of Sweden, contamination: natural, conc. range: >2–88 μg/kg, country: Sweden³¹⁵

incidence: 284/300, sa. const.: kidneys from pigs of Denmark, contamination: natural, conc. range: $0.02-0.06 \mu g/kg$ (54 sa), $0.06-0.09 \mu g/kg$ (27 sa), $0.09-0.50 \mu g/kg$ (140 sa), $0.5-1.00 \mu g/kg$ (39 sa), $\leq 15 \mu g/kg$ (24 sa), Ø conc.: $0.50 \mu g/kg$, country: Denmark³²⁴

incidence: 81/191, sa. const.: kidneys from slaughter pigs of Austria, contamination: natural, conc. range: <10 ppb (69 sa), 10–25 ppb (7 sa), ≤88.89 ppb (5 sa), country: Austria³²⁵

incidence: 35/85, sa. const.: kidneys from pigs of Poland, contamination: natural, conc. range: ≤ 3.1 ng/g, country: Poland³²⁷ incidence: $21/60^*$, sa. const.: kidneys from pigs of Denmark, contamination: natural, conc. range: $\le 68 \mu g/kg$, country: Denmark³²⁸, *condemned

incidence: 15/104, sa. const.: kidneys from pigs of the UK or imported, contamination: natural, conc. range: 1–5 μg/kg (12 sa), ≤9.3 μg/kg (3 sa), country: UK³³¹

incidence: 112/303*, sa. const.: kidneys from pigs of the UK, contamination: natural, conc. range: 0.5-<1 ng/g (51 sa), 1-<2 ng/g (39 sa), 2-<5 ng/g (14 sa), 5-<10 ng/g (6 sa), ≤ 12.4 ng/g (2 sa), country: UK³³⁵, *rejected as unsuitable for human consumption

incidence: 2/131, sa. const.: kidneys from pigs of Norway?, contamination: natural, conc. range: 7–10 μ g/kg, Ø conc.: 8.5 μ g/kg, country: Norway³³⁷

incidence: 10/10, sa. const.: kidneys from pigs of Denmark, contamination: natural, conc. range: 4–112.7 ng/g, Ø conc.: 46.05 ng/g, country: Belgium/Scotland, UK³⁴²

incidence: 28/95, sa. const.: kidneys from pigs of Belgium, contamination: natural,

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conc. range: 0.2–0.99 ng/g (6 sa), 1–4.99 ng/g (19 sa), 5–9.99 ng/g (3 sa), country: Belgium³⁴³ incidence: 6/13, sa. const.: kidneys from pigs of Belgium, contamination: natural, conc. range: 1.0–1.6 ng/g, Ø conc.: 1.22 ng/g, country: Belgium³⁴³ incidence: 3/4, sa. const.: kidneys from piglets of Belgium, contamination: natural, conc. range: 0.5–1.8 ng/g, Ø conc.: 1.33 ng/g, country: Belgium³⁴³ incidence: 3/129 sa. const.: kidneys from piglets of Belgium; contamination:

incidence: 32/129, sa. const.: kidneys from pigs of Sweden, contamination: natural, conc. range: $\geq 2-<5$ ppb (25 sa), $\geq 5-<10$ ppb (2 sa), $\geq 10-\leq 104$ ppb (5 sa), country: Sweden³⁴⁴

incidence: $10/193^*$, sa. const.: kidneys from pigs of Finland, contamination: natural, conc. range: $<1-5 \mu g/kg$, country: Finland³⁴⁸, *33 suspected

incidence: 82/104, sa. const.: kidneys from pigs of Romania, contamination: natural, conc. range: ≤3.18 ng/g, Ø conc.: 0.54 ng/g, country: Romania/Germany³⁵⁰

incidence: 7/25, sa. const.: kidneys from slaughter pigs of Germany, contamination: natural, conc. range: 0.4–5.1 μg/kg, Ø conc.: 1.16 μg/kg, country: Germany³⁷⁹

incidence: 3/38, sa. const.: kidneys from pigs of Croatia, contamination: natural, conc. range: 26–76 µg/kg, country: Croatia/Yugoslavia³⁹³

incidence: 1/1, sa. const.: kidneys from pigs of Italy, contamination: natural, conc.: 1.9 ng/g, country: Italy⁴³¹

incidence: 42/54*, sa. const.: kidneys from pigs of different countries, contamination: natural, conc. range: 0.26–3.05 ng/g, country: Italy⁴⁴¹, *contaminated sa. from Belgium (9 sa), Germany (13 sa), Italy (9 sa) and The Netherlands (11 sa)

incidence: 16/60, sa. const.: kidneys from pigs of Spain, contamination: natural, conc. range: 0.5–1 ng/g (12 sa), 1–3 ng/g (4 sa), country: Spain⁵²⁷

incidence: 187/250, sa. const. kidneys from pigs of the UK, contamination: natural, conc. range: 0.2–0.5 μ g/kg (151 sa), 0.51–1.0 μ g/kg (29 sa), 1.01–1.5 μ g/kg (4 sa), 1.51–2.0 μ g/kg (2 sa), 2.3 μ g/kg (1 sa), country: UK⁵⁵³

Pig liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/3, sa. const.: livers from feeder pigs of the USA, contamination: natural, conc.: 0.012 ng/g, country: USA¹¹³ incidence: 1/43, sa. const.: livers from pigs of Brazil, contamination: natural, conc.: 27 ng/g, country: Brazil²⁴⁹

incidence: 8/160, sa. const.: livers from hogs of the USA, contamination: natural, conc. range: 0.04–0.24 ppb, country: USA⁵¹⁹

AFLATOXIN M_1 incidence: 4/160, sa. const.: livers from hogs of the USA, contamination: natural, conc. range: 0.20–0.44 ppb, country: USA⁵¹⁹

DEOXYNIVALENOL

2000 in the article

incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤10.9 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed **organic diet** (wheat variety: Contur), **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤10.8 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: Contur), **in the year 2001, further data of the years 1999 and

Pig 249

incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤9.0 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed **organic diet** (wheat variety: *Batis*), **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: livers from

incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤15.7 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: *Batis*), **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg.

incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤5.2 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed **organic diet** (wheat variety: *Petrus*), **in the year 2001, further data of the year 2000 in the article incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: 8.3 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: *Petrus*), **in the year 2001,

OCHRATOXIN A

incidence: 73/191, sa. const.: livers from slaughter pigs of Austria, contamination: natural, conc. range: <10 ppb (61 sa), 10–25 ppb (8 sa), ≤97.33 ppb (4 sa), country: Austria³²⁵ incidence: 39/52, sa. const.: livers from pigs of Romania, contamination: natural, conc. range: ≤0.61 ng/g, Ø conc.: 0.16 ng/g, country: Romania/Germany³⁵⁰

further data of the year 2000 in the article

ZEARALENONE

incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤5.6 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed organic diet (wheat variety: Contur), **sum of ZEA, α - and β -ZEAOL, **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤22.0 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: Contur), **sum of ZEA, α - and β -ZEAOL, **in the year 2001, further data for the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤18.5 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed organic diet (wheat variety: Batis), **sum of ZEA, αand β-ZEAOL, **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤5.9 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: *Batis*), **sum of ZEA, α - and β -ZEAOL, **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤7.4 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed organic diet (wheat variety: Petrus), **sum of ZEA, α and β-ZEAOL, **in the year 2001, further data of the year 2000 in the article incidence: 6?/6*, sa. const.: livers from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: 6.0 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: Petrus), **sum of ZEA, α- and

 β -ZEAOL, **in the year 2001, further data of the year 2000 in the article

Pig meat may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 228/300, sa. const.: meat from pigs of Denmark, contamination: natural, conc. range: $0.03-0.06~\mu g/kg~(134~sa)$, $0.06-0.09~\mu g/kg~(27~sa)$, $0.09-0.50~\mu g/kg~(55~sa)$, $0.50-1.00~\mu g/kg~(3~sa)$, $\leq 2.9~\mu g/kg~(9~sa)$, Ø conc.: $0.12~\mu g/kg$, country: Denmark³²⁴

Pig muscle may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤2.1 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed **organic diet** (wheat variety: *Contur*), **in the year 2001, further data of the years 1999 and 2000 in the article

incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤8.0 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: *Contur*), **in the year 2001, further data of the years 1999 and 2000 in the article

incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤1.4 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed **organic diet** (wheat variety: *Batis*), **in the year 1999, further data of the years 2000 and 2001 in the article

incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc.: ±0.4 ng/mg** (mean value), country:

Germany⁴⁷⁵, *fed conventional diet (wheat variety: Batis), **in the year 1999, further data of the years 2000 and 2001 in the article incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤1.6 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed organic diet (wheat variety: Petrus), **in the year 2000, further data of the year 2001 in the article incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: 2.7 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: Petrus), **in the year 2000, further data of the year 2001 in the article

OCHRATOXIN A

incidence: 2/22*, sa. const.: muscles from pigs of Italy, contamination: natural, conc. range: ≤0.06 μg/kg, Ø conc.: 0.05 μg/kg, country: Italy³³⁹, *for ham incidence: 9/52, sa. const.: muscles from pigs of Romania, contamination: natural, conc. range: ≤0.53 ng/g, Ø conc.: 0.15 ng/g, country: Romania/Germany³⁵⁰

ZEARALENONE

incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤6.1 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed organic diet (wheat variety: Contur), **sum of ZEA, α - and β -ZEAOL, **in the year 1999, further data of the years 2000 and 2001 in the article incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc.: ±0.9 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: Contur), **sum of ZEA, α - and β -ZEAOL, **in the year 1999, further data of the years 2000 and 2001 in the article incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg,

contamination: natural (for detailed information please see the article), conc. range: ≤6.2 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed organic diet (wheat variety: Batis),**sum of ZEA, α- and β-ZEAOL, **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤1.2 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed conventional diet (wheat variety: Batis), **sum of ZEA, α- and β-ZEAOL, **in the year 2001, further data of the years 1999 and 2000 in the article incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: ≤16.1 ng/mg** (mean value), country: Germany⁴⁷⁵, *fed organic diet (wheat variety: Petrus), **sum of ZEA, α - and β -ZEAOL, **in the year 2001, further data of the year 2000 in the article incidence: 6?/6*, sa. const.: muscles from Pietrain × DL growing pigs, wt.: ≈22.2 kg, contamination: natural (for detailed information please see the article), conc. range: 14.3 ng/mg** (mean value), country: Germany475, *fed conventional diet (wheat variety: Petrus), **sum of ZEA, α - and β -ZEAOL, **in the year 2001, further data of the year 2000 in the article

Pig plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 3/9, sa. const.: plasma from feeder pigs of the USA, contamination: natural, conc. range: 5.1–36.7 ng/ml, country: USA¹¹³

OCHRATOXIN A

incidence: 191/216, sa. const.: plasma from pigs of Norway, contamination: natural, conc. range: ≥0.1 ng/ml (178 sa), ≥1 ng/ml (11 sa), ≤12.5 ng/ml (2 sa), Ø conc.: 0.5 ng/ml, country: Norway³⁰⁷

Pig serum may contain the following mycotoxins and/or their metabolites:

CITRININ

incidence: 7/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 1.3 μg/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2006

incidence: 8/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 1.6 μg/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2007

DEOXYNIVALENOL

incidence: 1/1, sa. const.: serum from a pig of Germany?, contamination: natural, conc.: 33 ng/ml, country: Germany³⁶⁴ incidence: 1/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 7.6 μg/l*, country: Bulgaria/South Africa⁵⁸¹, *in the year 2006 incidence: 10/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: nd*, country: Bulgaria/South Africa⁵⁸¹, *in the year 2007

OCHRATOXIN A

incidence: 93/191, sa. const.: serum from slaughter pigs of Germany, contamination: natural, conc. range: 0.1-67.3 μg/kg, Ø conc.: 5.8 μg/kg, country: Germany²⁹¹ incidence: 52/200, sa. const.: serum from pigs of Austria, contamination: natural, conc. range: <1 ppb (50 sa), \le 1.24 ppb (2 sa), country: Austria²⁹⁶ incidence: 66/287, sa. const.: serum from pigs of Austria, contamination: natural, conc. range: <1 ppb (59 sa), >1 ppb (5 sa), ≤30.36 ppb (2 sa), country: Austria²⁹⁶ incidence: 3/300, sa. const.: serum from pigs of France, contamination: natural, conc. range: 0.40-1.4 µg/kg, Ø conc.: 0.787 µg/kg, country: France²⁹⁷ incidence: 6/100, sa. const.: serum from pigs of France, contamination: natural,

conc. range: 0.16–0.48 μg/kg, country: France²⁹⁷

incidence: 148/388, sa. const.: serum from pigs of Poland, contamination: natural, conc. range: 1–520 ng/ml, country: Poland³⁰⁵

incidence: 45/85, sa. const.: serum from pigs of Germany, contamination: natural, conc. range: 0.29–17.6 μg/kg (mean values), country: Germany³³³

incidence: 572/1588, sa. const.: serum from pigs of Canada, contamination: natural, conc. range: 0.3–211 ng/ml, Ø conc.: 14.1 ng/ml, country: Canada³³⁸

incidence: 2/4, sa. const.: serum from sows of Belgium, contamination: natural, conc. range: 3.1–3.7 ng/ml, Ø conc.: 3.4 ng/ml, country: Belgium³⁴³ incidence: 4/4, sa. const.: serum from sows of Belgium, contamination: natural, conc. range: 2.3–3.7 ng/ml, Ø conc.: 2.95 ng/ml, country: Belgium³⁴³

incidence: 51/52, sa. const.: serum from pigs of Romania, contamination: natural, conc. range: ≤13.4 ng/ml, Ø conc.: 2.43 ng/ml, country: Romania/ Germany³⁵⁰

incidence: 3/25, sa. const.: serum from slaughter pigs of Germany, contamination: natural, conc. range: 2.8–12.9 μg/kg, Ø conc.: 6.77 μg/kg, country: Germany³⁷⁹

incidence: 3/4, sa. const.: serum from pigs of Belgium, contamination: natural, conc. range: 209.4–363.1 ng/ml, Ø conc.: 285.06 ng/ml, country: Belgium⁴¹⁰ incidence: 8/10, sa. const.: serum from pigs with nephropathy problems of

pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 28.8 μg/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2006 incidence: 9/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 6.3 μg/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2007

Penicillic Acid

incidence: 8/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 23.3 μg/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2006

incidence: 9/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 22.9 µg/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2007

PENITREM A

incidence: 3/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 64.0 μ g/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2006 incidence: 3/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 45.6 μ g/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2007

ZEARALENONE

incidence: 9/52, sa. const.: serum from pigs of romania, contamination: natural, conc. range: ≤0.96 ng/ml, Ø conc.: 0.8 ng/ml, country: Romania/Germany³50 incidence: 5/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 0.24 µg/l* (mean value), country: Bulgaria/South Africa⁵81, *in the year 2006 incidence: 5/10, sa. const.: serum from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 0.33 µg/l* (mean value), country: Bulgaria/South Africa⁵81, *in the year 2007

Pig urine may contain the following mycotoxins and/or their metabolites:

CITRININ

incidence: 10/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.:

1.7 μg/l* (mean value), country: Bulgaria/ South Africa⁵⁸¹, *in the year 2006 incidence: 10/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 1.8 μg/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2007

DEOXYNIVALENOL

incidence: 1/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 5.1 μg/l*, country: Bulgaria/South Africa⁵⁸¹, *in the year 2006

incidence: 10/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: nd*, country: Bulgaria/South Africa⁵⁸¹, *in the year 2007

OCHRATOXIN A

incidence: 10/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 3.5 μg/l* (mean value), country: Bulgaria/ South Africa⁵⁸¹, *in the year 2006 incidence: 10/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 6.2 μg/l* (mean value), country: Bulgaria/ South Africa⁵⁸¹, *in the year 2007

PENICILLIC ACID

incidence: 6/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 1.6 μ g/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2006 incidence: 6/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 1.7 μ g/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2007

PENITREM A

incidence: 10/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: nd*, country: Bulgaria/South Africa⁵⁸¹, *in the year 2006 incidence: 10/10, sa. const.: urine from pigs with nephropathy problems of

Bulgaria, contamination: natural, conc.: nd*, country: Bulgaria/South Africa⁵⁸¹, *in the year 2007

ZEARALENONE

incidence: 10/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 9.4 μ g/l* (mean value), country: Bulgaria/ South Africa⁵⁸¹, *in the year 2006 incidence: 10/10, sa. const.: urine from pigs with nephropathy problems of Bulgaria, contamination: natural, conc.: 13.1 μ g/l* (mean value), country: Bulgaria/South Africa⁵⁸¹, *in the year 2007

Pig Artificial Contamination

Pig Adipose Tissue see Pig fat

Pig adrenals may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰⁷, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., i.v., once), conc. range:
≤242.2 ng/g* (mean value), country:
Canada⁴⁰⁷, *after 0.33 h (also measured
after 1, 3, 8, and 24 h, lowest conc.: nd
after 24 h)

Pig bile may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: 1/1, sa. const.: female Hampshire \times Deutsches Edelschwein piglets, wt.: 15 kg, contamination: artificial (dose: 3.1 μ g AFB $_1$ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 1.3 ppb* **, country: Switzerland 66 , *AFB $_1$ eq., **after 24 h

incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglets, wt.: 15 kg, contamination: artificial (dose: 3.1 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 2.9 ppb* **, country: Switzerland66, *AFB, eq., **after

DEOXYNIVALENOL

incidence: 5/5*, sa. const.: healthy Yorkshire barrows, age: ≈11-15 weeks, wt.: 17-22 kg, contamination: no DON, conc.: nd, country: Canada407, *control incidence: ?/4, sa. const.: healthy Yorkshire barrows, age: ≈11-15 weeks, wt.: 17-22 kg, contamination: artificial (dose: 1.0 mg DON/kg b. wt., i.v., once), conc. range: ≤10,962.5 ng/g* (mean value), country: Canada407, *after 8 h (also measured after 0.33, 1, 3, and 24 h, lowest conc.: 1,283.0 ng/g after 24 h)

incidence: 5?/5, sa. const.: castrated Large White × German Landrace, db Classic crossbred pigs, wt.: ≈24.6 kg, contamination: artificial (dose: 0.05, 0.57, or 1.23 mg DON/kg mash or 0.07, 0.55, or 1.13* mg DON/kg pellets*, o., for 11 weeks; for detailed information please see the article), conc. range: ≤144.0 ng/ml* ** *** (mean value), country: Germany483, **after 78/79 days (thereof 11 weeks of DON-administration), ***values of the other DON-treatments lower

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤223.8 ng/ml* ** (mean value), country: Germany537, *9.57 mg DON and 0.358 mg ZEA/kg diet fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEAadministration)

Deepoxydeoxynivalenol

incidence: 5?/5, sa. const.: castrated Large White × German Landrace, db Classic

crossbred pigs, weight: ≈24.6 kg, contamination: artificial (dose: 0.05, 0.57, or 1.23* mg DON/kg mash* or 0.07, 0.55, or 1.13 mg DON/kg pellets, o., for 11 weeks; for detailed information please see the article), conc. range: ≤44.0 ng/ml* ** *** (mean value), country: Germany⁴⁸³, **after 78/79 days (thereof 11 weeks of DON-administration), ***values of the other DON-treatments lower

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤103.2 ng/ml* ** (mean value), country: Germany⁵³⁷, *9.57 mg DON and 0.358 mg ZEA/kg diet fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEAadministration)

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.:

12-14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany87, *control incidence: 1/10, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc.: 322.8 ng/g*, country: Hungary/Germany87, *after 22 days toxin feeding period

Fumonisin B,

FUMONISIN B,

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany87, *control incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/animal,

o., for 22 days; for detailed information please see the article), conc.: nd*, country: Hungary/Germany⁸⁷, *after 22 days toxin feeding period

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.v., once), conc. range: 2,336–4,698 ng/ml* **, Ø conc.: 3,517 ng/ml* **, country: USA³⁰⁸, *after 4 h, **free and conjugated HT-2 toxin

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.v., once), conc. range: 1,712–2,097 ng/ml* **, Ø conc.: 1,904.5 ng/ml* **, country: USA³⁰⁸, *after 4 h, **free and conjugated 3'-OH HT-2 toxin

Neosolaniol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.v., once), conc. range: 93–232 ng/ml* **, Ø conc.: 162.5 ng/ml* **, country: USA³⁰⁸, *after 4 h, **free and conjugated neosolaniol

4-Deacetylneosolaniol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.v., once), conc. range: 160–324 ng/ml* **, Ø conc.: 242 ng/ml* **, country: USA³⁰⁸, *after 4 h, **free and conjugated 4-deacetylneosolaniol

OCHRATOXIN A

incidence: 4/4*, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany³⁶⁵, *control

incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 17.03 ng/ml* (mean value), country: Germany³⁶⁵, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 5.13 ng/ml* (mean value), country: Germany365, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning total OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 4.78 ng/ml* (mean value), country: Germany³⁶⁵, *after 28 days

incidence: 8?/8*, sa. const.: pigs, contamination: no OTA (for detailed information please see the article), conc.: <0.59 ng/ml (mean value), country: Germany366, *control incidence: 8?/8, sa. const.: pigs, contamination: artificial (dose: 22.11 mg OTA (in total), o., for 90 days; for detailed information please see the article), conc.: no value*, country: Germany366, *after 90 days incidence: 8?/8, sa. const.: pigs, contamination: artificial (dose: 88.44 mg OTA (in total), o., for 90 days; for detailed information please see the article), conc.: 77.6 ng/ml* (mean value), country: Germany³⁶⁶, *after 90 days

T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.v., once), conc. range: 3,634–11,831 ng/ml* **, Ø conc.: 7,732.5 ng/ml*

**, country: USA³⁰⁸, *after 4 h, **free and conjugated T-2 toxin

incidence: 2/2*, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: no T-2 toxin, conc.: nr, country: USA⁴⁰³, *control incidence: 1/4, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: artificial (dose: 1.2 mg T-2 toxin/kg, i.a., once), conc.: <40 ppb*, country: USA⁴⁰³, *after 130 min

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.v., once), conc. range: 432–1,202 ng/ml* **, Ø conc.: 817 ng/ml* **, country: USA³⁰⁸, *after 4 h, **free and conjugated 3'-OH T-2 toxin

T-2 Tetraol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.v., once), conc. range: 322–366 ng/ml* **, Ø conc.: 344 ng/ml* **, country: USA³⁰⁸, *after 4 h, **free and conjugated T-2 tetraol

T-2 Triol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.v., once), conc. range: 801–1,008 ng/ml* **, Ø conc.: 904.5 ng/ml* **, country: USA³⁰⁸, *after 4 h, **free and conjugated T-2 triol

ZEARALENONE

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤268.3 ng/g* ** (mean value), country: Germany⁵³⁷, *9.57 mg DON and 0.358 mg ZEA/kg diet fed (both fed in highest conc.), **after 36

days (thereof 35 days of DON- and ZEA-administration)

α-Zearalenol

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤309.5 ng/g* ** (mean value), country: Germany⁵³⁷, *9.57 mg DON and 0.358 mg ZEA/kg diet fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

B-Zearalenol

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤17.8 ng/g* ** (mean value), country: Germany⁵³⁷, *9.57 mg DON and 0.358 mg ZEA/kg diet fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

Pig blood may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: 4/4*, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: no AFB, conc.: na, country: USA136, *control incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 100 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.03-0.30 μg/kg*, Ø conc.: 0.17 μg/kg*, country: USA136, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 200 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.21-0.47 μg/kg*, Ø conc.: 0.33 μg/kg*, country: USA¹³⁶, *after 4 weeks

incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 400 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.32-3.33 μg/kg*, Ø conc.: 1.15 μg/kg*, country: USA136, *after 4 weeks

AFLATOXIN M, incidence: 4/4*, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: no AFB,, conc.: na, country: USA136, *control incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 100 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.04-0.11 μg/kg*, Ø conc.: 0.06 μg/kg*, country: USA136, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 200 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.07-0.18 μg/kg*, Ø conc.: 0.12 μg/kg*, country: USA136, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 400 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.06-0.23 μg/kg*, Ø conc.: 0.14 μg/kg*, country: USA136, *after 4 weeks

Nivalenol

incidence: 3/3, sa. const.: male castrated Swedish Landrace × Yorkshire pigs, wt.: 37-63 kg, contamination: artificial (dose: 0.05 mg NIV/kg b. wt., o., twice daily for 3 days (trial 1); for detailed information please see the article), conc. range: ≤4.4 ng/ml* ** (mean value), country: Sweden⁵⁰¹, *on 3rd day, **systemic concentration incidence: 3/3, sa. const.: male castrated Swedish Landrace × Yorkshire pigs, wt.: 37-63 kg, contamination: artificial (dose: 0.05 mg NIV/kg b. wt., o., twice daily for 3 days (trial 2 = NIV-administration also 16 h before first blood sa taken); for detailed information please see the

article), conc. range: ≤4.8 ng/ml* (mean value), country: Sweden⁵⁰¹, *on 3rd day

OCHRATOXIN A

incidence: 4?/4*, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article), conc. range: ≤0.32 ng/ml** *** (mean value), country: Germany365, *control, **in full blood, ***after the start of the experiment (also at other day intervals up to 28 days measured, lowest conc.: 0.25 ng/ml after 28 days) incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc. range: ≤50.76 ng/ml* ** *** (mean value), country: Germany³⁶⁵, **in full blood, ***after 22 days of OTA-administration (also at other day intervals up to 28 days measured, lowest conc.: 0.71 ng/ml after the start of the experiment) incidence: 8?/8, sa. const.: male and

females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc. range: ≤14.67 ng/ml* ** *** (mean value), country: Germany³⁶⁵, **in full blood, ***after 22 days of OTA-administration (also at other day intervals up to 28 days measured, lowest conc.: 0.70 ng/ml after the start of the experiment)

incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning total **OTA-ration**, o., for 28 days; for detailed information please see the article), conc. range: ≤17.26 ng/ml* ** *** (mean value), country: Germany365, **in full blood, ***after 22 days of OTA-administration (also at other day intervals up to 28 days

measured, lowest conc.: 0.90 ng/ml after the start of the experiment)

incidence: 8?/8*, sa. const.: pigs, contamination: no OTA (for detailed information please see the article), conc.: 0.85 ng/ml** (mean value), country: Germany366, *control, **after 90 days incidence: 8?/8, sa. const.: pigs, contamination: artificial (dose: 22.11 mg OTA (in total), o., for 90 days; for detailed information please see the article), conc.: 20.0 ng/ml* ** (mean value), country: Germany366, *in full blood, **after 90 days incidence: 8?/8, sa. const.: pigs, contamination: artificial (dose: 88.44 mg OTA (in total), o., for 90 days; for detailed information please see the article), conc.: 77.0 ng/ml* ** (mean value), country: Germany366, *in full blood, **after 90 days

incidence: 9/9*, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: no OTA, conc.: nd, country: Germany409, *control incidence: 2*/9, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: artificial (dose: 0.15 mg natural OTA/kg feed, o., daily for 28 days), conc. range: \leq 12.0 µg/l* **, country: Germany⁴⁰⁹, *at day 14 (also measured after 28 days, lowest conc.: <3 µg/l after 14 and 28 days (several animals)), **in full blood incidence: 8/8*, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: no OTA, conc.: nd**, country: Germany409, *control, **in full blood incidence: 6/6, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination:

artificial (dose: **0.58 mg natural OTA/**kg feed, o., daily for 28 days), conc. range: ≤43.2 μg/l***, country: Germany⁴⁰⁹, *at day 28 (also measured after 14 days, lowest conc.: 18.4 μg/l after 14 days), **in full blood

T-2 Toxin

incidence: 1/1, sa. const.: female weanling crossbred Yorkshire × Duroc × Hampshire swine, wt.: 7.5 kg, contamination: artificial (dose: 0.1 mg T-2 toxin (labeled)/kg b. wt., intubated, once), conc.: 4.0 ppb* ** ***, country: USA³¹⁸, *calculated residue level, **T-2 toxin and/ or metabolites, ***after 18 h

ZEARALENONE

incidence: 8/8*, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120-125 days, wt.: ≈49.2 kg, contamination: no ZEA (for detailed information please see the article), conc.: nd, country: Poland418, *control incidence: 8?/8, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120-125 days, wt.: ≈49.2 kg, contamination: artificial (dose: 200 µg ZEA/kg b. wt., o., for 7 days; for detailed information please see the article), conc. range: ≤8.07 ng/ml* (mean value), country: Poland418, *after 5.5 h on day 1 of ZEA-administration (also measured after 2 and 7.5 h, lowest conc.: 0.93 ng/ml after 7.5 h

incidence: 8?/8, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120–125 days, wt.: ≈49.2 kg, contamination: artificial (dose: 400 µg ZEA/kg b. wt., o., for 7 days; for detailed information please see the article), conc. range: ≤7.22 ng/ml* (mean value), country: Poland⁴¹⁸, *after 5.5 h on day 1 of ZEA-administration (also measured after 2 and 7.5 h, lowest conc.: 2.50 ng/ml after 7.5 h)

incidence: 8/8*, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120–125 days, wt.: ≈49.2 kg, contamination: no ZEA (for detailed

information please see the article), conc.: nd, country: Poland418, *control incidence: 8?/8, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120-125 days, wt.: ≈49.2 kg, contamination: artificial (dose: 200 ug ZEA/kg b. wt., o., for 7 days; for detailed information please see the article), conc. range: ≤9.92 ng/ml* (mean value), country: Poland418, *after 5 days of ZEA-administration (also after other day intervals up to 7 days measured, lowest conc.: 0.10 ng/ml after 4 days) incidence: 8?/8, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120-125 days, wt.: ≈49.2 kg, contamination: artificial (dose: 400 µg ZEA/kg b. wt., o., for 7 days; for detailed information please see the article), conc. range: ≤14.45 ng/ml* (mean value), country: Poland418, *after 7 days of ZEA-administration (also after other day intervals up to 7 days measured, lowest conc.: 2.34 ng/ml after 4 days)

α -Zearalenol

120-125 days, wt.: ≈49.2 kg, contamination: no ZEA (for detailed information please see the article), conc.: nd, country: Poland418, *control incidence: 8?/8, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120-125 days, wt.: ≈49.2 kg, contamination: artificial (dose: 200 µg ZEA/kg b. wt., o., for 7 days; for detailed information please see the article), conc. range: ≤9.43 ng/ml* (mean value), country: Poland418, *after 5.5 h on day 1 of ZEA-administration (also measured after 2 and 7.5 h, lowest conc.: 6.97 ng/ml after 7.5 h) incidence: 8?/8, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120–125 days, wt.: ≈49.2 kg, contamination: artificial (dose: 400 µg ZEA/kg b. wt., o., for 7 days; for detailed information please see the article), conc. range: ≤24.13 ng/ml* (mean value),

incidence: 8/8*, sa. const.: female hybrid

Large Polish × Polish White gilts, age:

country: Poland⁴¹⁸, *after 2 h on day 1 of ZEA-administration (also measured after 5.5 and 7.5 h, lowest conc.: 12.84 ng/ml after 7.5 h)

incidence: 8/8*, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120-125 days, wt.: ≈49.2 kg, contamination: no ZEA (for detailed information please see the article), conc.: nd, country: Poland418, *control incidence: 8?/8, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120-125 days, wt.: ≈49.2 kg, contamination: artificial (dose: 200 µg ZEA/kg b. wt., o., for 7 days; for detailed information please see the article), conc. range: ≤8.11 ng/ml* (mean value), country: Poland418, *after 1 day of ZEA-administration (also at other day intervals up to 7 days measured, lowest conc.: 2.86 ng/ml after 7 days) incidence: 8?/8, sa. const.: female hybrid Large Polish × Polish White gilts, age: 120-125 days, wt: ≈49.2 kg, contamination: artificial (dose: 400 µg ZEA/kg b. wt., o., for 7 days; for detailed information please see the article), conc. range: ≤17.79 ng/ml* (mean value), country: Poland418, *after 1 day of ZEA-administration (also at other day intervals up to 7 days measured, lowest conc.: 4.48 ng/ml after 7 days)

Pig bone marrow may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.16–1.35 ng/g*, Ø conc.: 1.255 ng/g*, country: USA⁴²⁵, *after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.67–2.51 ng/g*, Ø conc.: 2.09 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.38–0.58 ng/g*, Ø conc.: 0.48 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 18–25 ng/g*, Ø conc.: 21.50 ng/g* ***, country: USA⁴²⁵, *after 4 h, **total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.40–1.32 ng/g*, Ø conc.: 0.86 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 Tetraol

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.04 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.66–0.74 ng/g*, Ø conc.: 0.70 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.07–0.15 ng/g*, Ø conc.: 0.11 ng/g*, country: USA⁴²⁵, *after 4 h

Pig brain may contain the following mycotoxins:

AFLATOXIN B,

incidence: 1/1, sa. const.: female Hampshire \times Deutsches Edelschwein piglet, wt.: 15 kg, contamination: artificial (dose: 3.1 μ g AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: <0.2 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after 24 h incidence: 1/1, sa. const.: female Hampshire \times Deutsches Edelschwein piglet, wt.: 15 kg, contamination: artificial (dose: 3.1 μ g AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: <0.2 ppb*, country: Switzerland⁶⁶, *AFB₁ eq., **after 48 h

DEOXYNIVALENOL

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰७, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., i.v., once), conc. range:
≤54.9 ng/g* (mean value), country:
Canada⁴⁰७, *after 0.33 h (also measured
after 1, 3, 8 and 24 h, lowest conc.: nd
after 24 h)

FUMONISIN B,

incidence: $6/6^*$, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: no FB₁ (for detailed information please see the article), conc.: nd, country: Germany/Hungary¹⁰⁹, *control incidence: 8/13, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5-11 days; for detailed information please see the article), conc. range: 1-1,860 µg/kg*, Ø conc.: 240.5 µg/kg*, country: Germany/Hungary¹⁰⁹, *on 6th day of the experiment

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.10–0.13 ng/g*, Ø conc.: 0.115 ng/g*, country: USA⁴²⁵, *after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.07–0.22 ng/g*, Ø conc.: 0.145 ng/g*, country: USA⁴²⁵, *after 4 h

OCHRATOXIN A

incidence: 2/2*, sa. const.: pigs, contamination: no OTA and/or DON (for detailed information please see the article), conc.: nd, country: Germany³⁷⁸, *control

incidence: 5/6, sa. const.: pigs, contamination: artificial (dose: **0.1 ppm crystalline OTA + 1.0 ppm crystalline DON**, o., twice daily for 90 days; for detailed information please see the article), conc. range: 0.14–0.34 ng/g*, Ø conc.: 0.224 ng/g*, country: Germany³⁷⁸, *after 90 days

incidence: 2/3, sa. const.: pigs, contamination: artificial (dose: **0.1 ppm crystalline OTA**, o., twice daily for 90 days; for detailed information please see the article), conc. range: 0.14–0.20 ng/g*, Ø conc.: 0.17 ng/g*, country: Germany³⁷⁸, *after 90 days

incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: **1.0 ppm crystalline DON**, o., twice daily for 90 days; for detailed information please see the article), conc.: nd*, country: Germany³⁷⁸, *after 90 days

T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.02–0.05 ng/g*, Ø conc.: 0.035 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 8–13 ng/g*, Ø conc.: 10.5 ng/g* **, country: USA⁴²⁵, *after 4 h, **total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.07–0.10 ng/g*, Ø conc.: 0.085 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.28–0.32 ng/g*, Ø conc.: 0.30 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.03–0.05 ng/g*, Ø conc.: 0.04 ng/g*, country: USA⁴²⁵, *after 4 h

Pig cecum may contain the following mycotoxins and/or their metabolites:

Deoxynivalenol + Deepoxydeoxynivalenol incidence: ?/11, sa. const.: castrated male pigs, Ø wt.: 88.1 kg, contamination: artificial (dose: 4.2 mg DON/kg, o., for 7 days), conc. range: $\approx \le 660 \mu g/g^*$ (mean value), country: Germany⁴¹³, * ≈ 5 h after final DON-administration (also at other hour intervals up to 24 h measured, lowest conc.: $\approx 65 \mu g/g$ after 24 h)

Pig colon may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 9/9, sa. const.: male and female crossbred piglets, age: 5 weeks, contamination: artificial (dose: 5.8 ppm DON in the diet, for 1–5 weeks; for detailed

information please see the article), conc. range: tr-327 ppb* **, country: Canada/ USA⁷⁰, *in colon contents (pigs fed 0.7 or 3.1 ppm DON = no data), **measured at 1st, 4th, and 5th week (pr. residue values are each lowest and highest value of 1st to 5th week measurement)

Deoxynivalenol + Deepoxydeoxynivalenol incidence: ?/11, sa. const.: castrated male pigs, Ø wt.: 88.1 kg, contamination: artificial (dose: 4.2 mg DON/kg, o., for 7 days), conc. range: ≈≤1,020 μg/g* (mean value), country: Germany⁴¹³, *≈5 h after final DON-administration (also at other hour intervals up to 24 h measured, lowest conc.: ≈150 μg/g after 24 h)

T-2 Toxin

incidence: 2?/2*, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nr**, country: USA⁴⁰³, *control, **in spiral colon contents incidence: 1/?, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: artificial (dose: 2.4 mg T-2 toxin/kg, i.a., once), conc.: 66 ppb* **, country: USA⁴⁰³, *in spiral colon contents,

Pig duodenum may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

**after ≈19.5 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 1.80–2.84 ng/g*, Ø conc.: 2.32 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 1.76–3.75 ng/g* **, Ø conc.: 2.755 ng/g* **, country: USA⁴²⁵, *in duodenum contents, **after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 2.87–5.83 ng/g*, Ø conc.: 4.35 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 4.08–7.76 ng/g* ***, Ø conc.: 5.92 ng/g* ***, country: USA⁴²⁵, *in duodenum contents. **after 4 h

T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., ivs., once), conc. range: 0.30-0.61 ng/g*, Ø conc.: 0.455 ng/g*, country: USA425, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 32-101 ng/g*, Ø conc.: 66.5 ng/g* **, country: USA⁴²⁵, *after 4 h, **total metabolites incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.22-0.68 ng/g* **, Ø conc.: 0.45 ng/g* **, country: USA425, *in duodenum contents, **after 4 h incidence: 2/2, sa. const.: female crossbred

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 55–144 ng/g* **, Ø conc.: 99.5 ng/g* ** ***, country: USA⁴²⁵, *in duodenum contents, **after 4 h, ***total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.51–1.42 ng/g*, Ø conc.: 0.965 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.55–2.10 ng/g* **, Ø conc.: 1.325 ng/g* **, country: USA⁴²⁵, *in duodenum contents. **after 4 h

T-2 TETRAGE

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.19–0.69 ng/g*, Ø conc.: 0.44 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.09–0.13 ng/g* ***, Ø conc.: 0.11 ng/g* ***, country: USA⁴²⁵, *in duodenum contents. **after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.62–1.59 ng/g*, Ø conc.: 1.105 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.95–3.27 ng/g* **, Ø conc.: 2.11 ng/g* **, country: USA⁴²⁵, *in duodenum contents, **after 4 h

T-2 TRIOL

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.40 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg,

contamination: artificial (dose: 0.15 mg T-2

toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.13–0.33 ng/g* **, Ø conc.: 0.23 ng/g* **, country: USA⁴²⁵, *in duodenum contents. **after 4 h

DEEPOXY T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: nd*, country: USA⁴²⁵, *after 4 h incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc.: 0.18 ng/g* **, country: USA⁴²⁵, *in duodenum contents, **after 4 h

Pig eye may contain the following mycotoxins and/or their metabolites:

FUMONISIN B,

incidence: $6/6^*$, sa. const.: castrated pigs of identical genotype, weight: $\approx 12-14$ kg, contamination: no FB₁ (for detailed information please see the article), conc.: nd, country: Germany/Hungary¹⁰⁹, *control incidence: 12/13, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5-11 days; for detailed information please see the article), conc. range: 8-226 µg/kg*, Ø conc.: 57.31 µg/kg*, country: Germany/Hungary¹⁰⁹, *on 6th day of the experiment

Pig fat may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglet, wt.: 15 kg, contamination: artificial (dose: $3.1~\mu g~AFB_1$ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: $0.5~ppb^*$ *, country: Switzerland⁶⁶, *AFB₁ eq., **after **24 h** incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglet, wt.: 15~kg, contamination: artificial

(dose: 3.1 μg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 0.2 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after **48** h

incidence: 20/20*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nd, country: Denmark/ USA¹0¹, *control

incidence: 7/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB₁ + AFB₂ (overall 300 ppb AFs), o., for 120-164 days**; for detailed information please see the article), conc. range: tr** ***, country: Denmark/USA¹o¹, *livers of some of these pigs rejected at meat inspection, **after 120-164 days, ***in adipose tissue

incidence: 10/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB₁ + AFB₂ addition (overall 500 ppb AFs), o., for 135-216 days**; for detailed information please see the article), conc. range: tr** ***, country: Denmark/USA¹0¹ *livers of some of these pigs rejected at meat inspection, **after 135-216 days, ***in adipose tissue

incidence: 5/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g AFB**₁ + **AFB**₂, o., for 35 days; for detailed information please see the article), conc.: 0.030 ng/g* (mean value), country: USA⁵⁹⁷, *after **35 days**

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 35 days; for detailed information please

see the article), conc.: 0.010 ng/g* (mean value), country: USA⁵⁹⁷, *after **35 days** incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB₁ + AFB₂, o., for 15 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g** AFB₁ + AFB₂, o., for 15 days; for detailed information please see the article), conc.: 0.060 ng/g* (mean value), country: USA⁵⁹⁷, *after 15 days

incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: 0.020 ng/g* (mean value), country: USA⁵⁹⁷, *after 15 days

incidence: 5/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: 0.010 ng/g* (mean value), country: USA⁵⁹⁷, *after 29 days (thereof 15 days of AFB₁- and AFB₂-administration)

Aflatoxin B₂

incidence: 20/20*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nd, country: Denmark/USA101, *control incidence: 7/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 300 ppb AFs), o., for 120-231 days**; for detailed information please see the article), conc.: nd** ***, country: Denmark/USA101, *livers of some of these pigs rejected at meat inspection, **after 120-231 days, ***in adipose tissue

incidence: 10/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB₁ + AFB₂ addition (overall **500 ppb** AFs), o., for 120–231 days**; for detailed information please see the article), conc.: nd** ***, country: Denmark/USA¹01 *livers of some of these pigs rejected at meat inspection, **after 120–231 days, ***in adipose tissue

incidence: 5/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control

incidence: 5/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: nd*, country: USA⁵⁹⁷, *after 35 days incidence: 5/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 35 days; for detailed information please see the article), conc.: nd*, country: USA⁵⁹⁷, *after 35 days

incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB₁ + AFB₂, o., for 15 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control incidence: 5/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + AFB₂, o., for 15 days; for detailed information please see the article), conc.: nd*, country: USA⁵⁹⁷, *after **15 days**

incidence: 5/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: nd*, country: USA⁵⁹⁷, *after 15 days

incidence: 5/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂, o., for 15 days followed by 2 weeks control diet; for

detailed information please see the article), conc.: nd*, country: USA⁵⁹⁷, *after **29 days** (thereof 15 days of AFB₁- and AFB₂-administration)

AFLATOXIN M,

incidence: 5/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g AFB**₁ + **AFB**₂, o., for 35 days; for detailed information please see the article), conc.: 0.010 ng/g* (mean value), country: USA⁵⁹⁷, *after **35 days**

incidence: 5/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g** AFB₁ + AFB₂ + HSCAS (0.5%), o., for 35 days; for detailed information please see the article), conc.: nd*, country: USA⁵⁹⁷, *after **35 days**

incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB₁ + AFB₂, o., for 15 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + **AFB**₂, o., for 15 days; for detailed information please see the article), conc.: 0.070 ng/g* (mean value), country: USA⁵⁹⁷, *after 15 days

incidence: 5/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: nd*, country: USA⁵⁹⁷, *after 15 days incidence: 5/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: nd*, country: USA⁵⁹⁷, *after 29 days (thereof 15 days of AFB₁- and

AFB,-administration)

AFLATOXIN M

≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nd, country: Denmark/ USA101, *control incidence: 7/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB₁ + AFB₂ addition (overall **300 ppb AFs**), o., for 120-231 days**; for detailed information please see the article), conc.: nd** ***, country: Denmark/USA101, *livers of some of these pigs rejected at meat inspection, **after 120-231 days, ***in adipose tissue incidence: 10/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 500 ppb AFs), o., for 120-231 days**; for detailed information please see the article), conc.: nd** ***, country: Denmark/USA101 *livers of some of these pigs rejected at meat inspection, **after 120-231 days, ***in adipose tissue

incidence: 20/20*, sa. const.: male and

female Danish Landrace pigs, age:

DEOXYNIVALENOL

incidence: 6/6*, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada406, *control incidence: 50?/50, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: artificial (dose: 6.0 mg natural DON/kg dry weight, o., for 3 weeks (feeding trial 1); for detailed information please see the article), conc. range: ≤51.3 ng/g* **, country: Canada406, *in back fat, **after 3 weeks incidence: 6/6*, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada406, *control

incidence: 6?/6, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: artificial (dose: 6.0 mg crystalline DON/ kg dry weight, o., for 4 weeks (feeding trial 2); for detailed information please see the article), conc. range: ≤22.7 ng/g* **, country: Canada406, *in back fat, **after 4 weeks incidence: 6/6*, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada406, *control incidence: 6?/6, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: artificial (dose: 7.6 mg natural DON/kg dry weight, o., for 7 weeks (feeding trial 3); for detailed information please see the article), conc. range: ≤19.5 ng/g* **, country:

Canada406, *in back fat, **after 7 weeks

incidence: 5/5*, sa. const.: healthy Yorkshire barrows, age: ≈11-15 weeks, wt.: 17-22 kg, contamination: no DON, conc.: nd, country: Canada407, *control incidence: ?/4, sa. const.: healthy Yorkshire barrows, age: ≈11-15 weeks, wt.: 17-22 kg, contamination: artificial (dose: 1.0 mg DON/kg b. wt., i.v., once), conc. range: ≤491.6 ng/g* ** (mean value), country: Canada⁴⁰⁷, *after 1 h (also measured after 0.33, 3, 8 and 24 h, lowest conc.: 3.4 ng/g after 24 h), **in abdominal fat incidence: ?/25, sa. const.: healthy Yorkshire barrows, age: ≈11–15 weeks, wt.: 17-22 kg, contamination: artificial (dose: 1.0 mg DON/kg b. wt., i.v., once), conc. range: ≤294.7 ng/g* ** (mean value), country: Canada407, *after 1 h (also measured after 0.33, 3, 8 and 24 h, lowest conc.: 12.4 ng/g after 24 h), **in back fat

Fumonisin B₁

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd**, country: Hungary/Germany⁸⁷, *control, **neither in abdominal nor in subcutaneous fat

incidence: 9/10, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB, 20 mg FB, + 5 mg FB,/animal, o., for 22 days; for detailed information please see the article), conc. range: 0.8-111.2 ng/g* **, Ø conc.: 16.27 ng/g* **, country: Hungary/Germany87, *in abdominal fat, **after 22 days toxin feeding period incidence: 8/10, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB,, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc. range: 0.8-8.8 ng/g* **, Ø conc.: 3.4 ng/g* **, country: Hungary/ Germany⁸⁷, *in subcutaneous fat, **after 22 days toxin feeding period

incidence: $6/6^*$, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: no FB₁ (for detailed information please see the article), conc.: nd, country: Germany/Hungary¹⁰⁹, *control

incidence: 6/13, sa. const.: castrated pigs of identical genotype, wt.: ≈12–14 kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5–11 days; for detailed information please see the article), conc. range: 1–11 µg/kg*, Ø conc.: 4.83 µg/kg*, country: Germany/Hungary¹09, *on 6th day of the experiment

Fumonisin B₂ incidence: 5/

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd**, country: Hungary/Germany⁸⁷, *control, **neither in abdominal nor in subcutaneous fat incidence: 5/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc. range: 1.6–16 ng/g* **, Ø conc.: 5.28 ng/g* **, country: Hungary/Germany⁸⁷, *in

abdominal fat, **after 22 days toxin feeding period incidence: 7/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc. range: 0.8–3.2 ng/g* **, Ø

article), conc. range: 0.8–3.2 ng/g* **, Ø conc.: 1.71 ng/g* **, country: Hungary/ Germany⁸⁷, *in **subcutaneous fat**, **after 22 days toxin feeding period

OCHRATOXIN A

incidence: 5/5*, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Denmark/ USA¹⁰², *control

incidence: ?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals; for detailed information please see the article), conc.: 5.95 µg/kg* (mean value), country: Denmark/USA¹º², *1 day after termination of OTA-exposure incidence: ?/5 sa. const.: female pigs of

incidence: ?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals; for detailed information please see the article), conc.: 2.54 µg/kg* (mean value), country: Denmark/USA¹⁰², *8 days after termination of OTA-exposure

incidence: 5/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals; for detailed information please see the article), conc.: nd* (mean value), country: Denmark/ USA¹⁰², *15 days after termination of OTA-exposure

incidence: 5/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals; for detailed information please see the article), conc.: nd* (mean value), country: Denmark/ USA¹0², *29 days after termination of OTA-exposure

incidence: ?/?, sa. const.: weaners (specific pathogen free), wt.: 14–18 kg, contamination: artificial (dose: ? µg OTA addition; for detailed information please see the article), conc. range: ≤17 µg/kg*, country: Denmark²⁰⁴, *calculated value based on the amount of OTA in blood after 24 h on toxin-free diet

incidence: 13/13*, sa. const.: castrated pigs, weight: 20 kg, contamination: no OTA and/or CIT (for detailed information please see the article), conc.: nd, country: Denmark/USA330, *control incidence: 1/1?, sa. const.: castrated pigs, weight: 20 kg, contamination: artificial (dose: 1,400 µg crystalline OTA/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 4 µg/kg* ** (mean value), country: Denmark/USA330, *in leaf fat, **after 6 weeks incidence: 1/1?, sa. const.: castrated pigs, weight: 20 kg, contamination: artificial (dose: 650 µg crystalline CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: nd* **, country: Denmark/USA330, *in leaf fat, **after 6 weeks incidence: 1/1?, sa. const.: castrated pigs, weight: 20 kg, contamination: artificial (dose: 1,400 µg crystalline OTA + 650 µg crystalline CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 3 µg/kg* **, (mean value), country: Denmark/USA330, *in leaf fat, **after 6 weeks incidence: 1/1?, sa. const.: castrated pigs, weight: 20 kg, contamination: artificial (dose: 1,400 μg natural OTA + 650 μg

natural CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 8 μg/kg* ** (mean value), country: Denmark/USA³³⁰, *in leaf fat, **after 6 weeks

incidence: 4/4*, sa. const.: male and

females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany³⁶⁵, *control incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 6.56 ng/g* ** (mean value), country: Germany³⁶⁵, *in leaf fat, **after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning and evening half of OTAration, o., for 28 days; for detailed information please see the article), conc.: 1.81 ng/g* ** (mean value), country: Germany365, *in leaf fat, **after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/ kg diet/day, in the morning total OTAration, o., for 28 days; for detailed information please see the article), conc.: 2.49 ng/g* ** (mean value), country: Germany³⁶⁵, *in leaf fat, **after 28 days incidence: 4/4*, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany365, *control incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 5.58 ng/g* ** (mean value), country: Germany365, *in neck fat, **after 28 days

incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 1.54 ng/g* ** (mean value), country: Germany365, *in neck fat, **after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/ kg diet/day, in the morning total OTAration, o., for 28 days; for detailed information please see the article), conc.: 1.86 ng/g* ** (mean value), country: Germany³⁶⁵, *in neck fat, **after 28 days

contamination: no OTA and/or DON (for detailed information please see the article), conc.: nd, country: Germany³⁷⁸, *control incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm crystalline OTA + 1.0 ppm crystalline DON, o., twice daily for 90 days; for detailed information please see the article), conc. range: 0.31–1.11 ng/g*, Ø conc.: 0.828 ng/g*, country: Germany³⁷⁸, *after 90 days incidence: 3/3, sa. const.: pigs,

incidence: 2/2*, sa. const.: pigs,

contamination: artificial (dose: **0.1 ppm** crystalline OTA, o., twice daily for 90 days; for detailed information please see the article), conc. range: 0.56–0.82 ng/g*, Ø conc.: 0.696 ng/g*, country: Germany³⁷⁸, *after 90 days

incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 1.0 ppm crystalline DON, o., twice daily for 90 days; for detailed information please see the article), conc. range: nd*, country: Germany³⁷⁸, *after 90 days

incidence: 2?/2*, sa. const.: pigs, contamination: no OTA and/or ZEA (for detailed information please see the article), conc.: nr, country: Germany³⁸⁰, *control

incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm OTA + 0.25 ppm ZEA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤2.31 ng/g*, country: Germany³⁸⁰, *after 91 days (thereof 90 days of OTA- and ZEA-administration)

incidence: 2/3, sa. const.: pigs, contamination: artificial (dose: **0.1 ppm OTA**, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤1.41 ng/g*, country: Germany³⁸⁰, *after 91 days (thereof 90 days of OTA-administration)

incidence: 3/3*, sa. const.: female pigs of Danish Landrace, age: 8–10 weeks, wt.: ≈20 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Denmark/ USA/Sweden³⁸³, *control incidence: 4?/4, sa. const.: female pigs of Danish Landrace, age: 8–10 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 mg crystalline OTA/kg feed, o., for 3 months; for detailed information please see the article), conc.: ≈2.5 μg/kg (mean value), country: Denmark/USA/Sweden³⁸³, *after ≈3 months

T-2 Toxin

incidence: 1/1, sa. const.: female weanling crossbred Yorkshire × Duroc × Hampshire swine, wt.: 7.5 kg, contamination: artificial (dose: 0.1 mg T-2 toxin (labeled)/kg b. wt., intubated, once), conc.: 4.9 ppb* ** ***, country: USA³¹⁸, *calculated residue level, **T-2 toxin and/or metabolites, ***after 18 h

α -Zearalenol

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days, conc.: 10 µg/kg* **, country: Hungary⁶³², *after 14 days, **in adipose tissues

β-ZEARALENOL

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days, conc.: pr* **, country: Hungary⁶³², *after 14 days, **in adipose tissues

Pig Fat Around Kidney see Pig kidney

Pig feces may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 5?/5, sa. const.: castrated male Swedish Landrace pigs, wt.: ≈20 kg, contamination: artificial (dose: 2.5 mg 3-aDON/kg feed, o., 5 times in 2.5 days), conc.: pr, country: Sweden⁴¹⁶

incidence: 16/16*, sa. const.: barrows, wt.: 28 kg, contamination: artificial (dose: 0.09 mg DON/kg wheat (but DON not intended; wheat roportion in the diet 0%); for detailed information please see the article), conc.: nd, country: Germany⁴⁸⁴, *control

incidence: ?/16, sa. const.: barrows, wt.: 28 kg, contamination: artificial (dose: 2.64 mg natural DON/kg wheat (wheat proportion in the diet 17.5%), o., for 70 days?; for detailed information please see the article), conc.: 0.009 mg/kg* (mean value), country: Germany⁴⁸⁴, *after 13 weeks

incidence: ?/16, sa. const.: barrows, wt.: 28 kg, contamination: artificial (dose: 4.41 mg natural DON/kg wheat (wheat proportion in the diet 35%), o., for 70 days?; for detailed information please see the article), conc.: 0.020 mg/kg* (mean value), country: Germany⁴⁸⁴, *after 13 weeks

incidence: 5/5*, sa. const.: male castrated and female fattening pigs (Deutsches Bundeshybridzuchtprogramm), wt.: 34.1–

103.7 kg, contamination: artificial (dose: 0.15 mg DON/kg wheat, contaminated (proportion in the diet 0%), o., for 7 days?; for detailed information please see the article), conc.: nd, country: Austria/ Germany530, *control incidence: ?/5, sa. const.: male castrated and female fattening pigs (Deutsches Bundeshybridzuchtprogramm), wt.: 34.1-103.7 kg, contamination: artificial (dose: 3.86 mg DON/kg wheat, contaminated (proportion in the diet 40%), o., for 7 days?; for detailed information please see the article), conc. range: ≤0.018 mg/kg* **(mean value), country: Austria/ Germany⁵³⁰, *in freeze dried feces, **at the end of the collection period

incidence: 7?/7, sa. const.: Yorkshire barrows, wt.: ≈35 kg, contamination: artificial (dose: **0.19 mg DON**/kg diet dry matter, o., for 2 weeks (diet C); for detailed information please see the article), conc.: 0.05 mg* (mean value), country: Canada⁶⁰⁶, *in a 5-days collection period

incidence: 7?/7, sa. const.: Yorkshire barrows, wt.: ≈35 kg, contamination: artificial (dose: 4.66 mg DON/kg diet dry matter, o., for 1 week (diet C in the first week); for detailed information please see the article), conc.: 0.25 mg* (mean value), country: Canada⁶⁰⁶, *in a 5-days collection period

DEEPOXYDEOXYNIVALENOL

incidence: 5?/5, sa. const.: castrated male Swedish Landrace pigs, wt.: ≈20 kg, contamination: artificial (dose: 2.5 mg 3-aDON/kg feed, o., 5 times in 2.5 days), conc.: pr, country: Sweden⁴¹⁶

incidence: 5?/5*, sa. const.: male castrated and female fattening pigs (Deutsches Bundeshybridzuchtprogramm), wt.: 34.1–103.7 kg, contamination: artificial (dose: 0.15 mg DON/kg wheat, contaminated (proportion in the diet 0%), o., for 7 days?; for detailed information please see the article), conc. range: ≤0.020 mg/kg**
*** (mean value), country: Austria/ Germany⁵³⁰, *control, **in freeze dried

feces, ***at the end of the collection period

incidence: 5?/5, sa. const.: male castrated and female fattening pigs (Deutsches Bundeshybridzuchtprogramm), wt.: 34.1–103.7 kg, contamination: artificial (dose: 3.86 mg DON/kg wheat, contaminated (proportion in the diet 40%), o., for 7 days?; for detailed information please see the article), conc. range: ≤0.459 mg/kg* *** (mean value), country: Austria/Germany⁵³⁰, *in freeze dried feces, **at the end of the collection period

incidence: 7?/7, sa. const.: Yorkshire barrows, wt.: ≈35 kg, contamination: artificial (dose: 0.19 mg DON/kg diet dry matter, o., for 2 weeks (diet C); for detailed information please see the article), conc.: nd*, country: Canada⁶⁰⁶, *daily incidence: 7?/7, sa. const.: Yorkshire barrows, wt.: ≈35 kg, contamination: artificial (dose: 4.66 mg DON/kg diet dry matter, o., for 1 week (diet C in the first week); for detailed information please see the article), conc.: 0.068 mg* (mean value), country: Canada⁶⁰⁶, *daily

FUMONISIN B,

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc. range: 0.3–76.1 mg*, Ø conc.: 28.21 mg*, country: Hungary/Germany⁸⁷, *excretion between days 13 and 17

Fumonisin B_2 incidence: 5/5*, sa. const.: we aned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB_1 , $FB_2 + FB_3$ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc. range: 0.4–3.5 mg*, Ø conc.: 2.02 mg*, country: Hungary/Germany⁸⁷, *excretion between days 13 and 17

Nivalenol

incidence: 3/3, sa. const.: male castrated Swedish Landrace × Yorkshire pigs, wt.: 37–63 kg, contamination: artificial (dose: 0.05 mg NIV/kg b. wt., o., twice daily for 3 days (NIV-administration also 16 h before first blood sa. taken); for detailed information please see the article), conc. range: ≤3,034 ng/g* (mean value), country: Sweden⁵⁰¹, *on 3rd day

OCHRATOXIN A

incidence: 1/1*, sa. const.: pregnant gilt, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control incidence: 2/2, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg OTA + 0.13 mg OTB/**kg b. wt., o., for 8 days during early pregnancy), conc. range: 1.3–8.1 μg/g* ** dry matter, Ø conc.: 4.7 μg/g* ** dry matter, country: UK²⁶⁶, *very approximately, **measured during dosing

OCHRATOXIN (A

incidence: 1/1*, sa. const.: pregnant gilt, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control incidence: 2/2, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg OTA + 0.13 mg OTB**/kg b. wt., o., for 8 days during early pregnancy), conc. range: 100.4–143.2 μg/g* dry matter, Ø conc.: 121.8 μg/g* dry matter, country: UK²⁶⁶, *measured during dosing

OCHRATOXIN B

incidence: 1/1*, sa. const.: pregnant gilt, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control

incidence: 2/2, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg OTA + 0.13 mg OTB**/kg b. wt., o., for 8 days during early pregnancy), conc. range: 200.2–201.5 μ g/g* dry matter, Ø conc.: 200.85 μ g/g* dry matter, country: UK²⁶⁶, *measured during dosing

ZEARALENONE

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days, conc.: 3,710 µg/kg*, country: Hungary⁶³², *after 13/14 days)

α-Zearalenol

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days, conc.: 15,750 µg/kg*, country: Hungary⁶³², *after 13/14 days)

β-ZEARALENOL

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days, conc.: 4,140 µg/kg*, country: Hungary⁶³², *after 13/14 days)

Pig gallbladder may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 2?/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AF), o., daily for 33 days; for detailed information please see the article), conc.: 0.04 ppb* **, country: France⁸⁸, *value expressed for total bile contents, **after 33 days

AFLATOXIN B,

incidence: 2?/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AF), o., daily for 33 days; for detailed information please see the article), conc.: 0.02 ppb* **, country: France⁸⁸, *value expressed for total bile contents, **after 33 days

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB.) for 19 days; for detailed information please see the article), conc.: 0.143 µg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB.) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

Aflatoxin M_1

incidence: 2?/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AF), o., daily for 33 days; for detailed information please see the article), conc.: 0.02 ppb* **, country: France⁸⁸, *value

expressed for total bile contents, *after 33 days

AFLATOXIN M incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 0.176 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

Pig heart may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglet, wt.: 15 kg, contamination: artificial (dose: 3.1 µg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 0.5 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after 24 h

incidence: 1/1, sa. const.: female Hampshire \times Deutsches Edelschwein piglets, wt.: 15 kg, contamination: artificial (dose: 3.1 μ g AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 0.5 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after 48 h

incidence: 1/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AF), o., daily for 33 days; for detailed information please see the article), conc.: 0.92 ppb*, country: France⁸⁸, *after 33 days

incidence: 20/20*, sa. const.: male and

female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nd, country: Denmark/ USA101, *control incidence: 1/16*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 300 ppb AFs), o., for 141 days**; for detailed information please see the article), conc.: tr**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, **after 141 days incidence: 4/17*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB₁ + AFB₂ addition (overall **500 ppb** AFs), o., for 141-216 days**; for detailed information please see the article), conc. range: tr**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, after 141-216 days**

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial

(dose: $662 \mu g AFB_1/kg diet$, $273 \mu g AFB_2/kg diet$, $300 \mu g AFG_1/kg diet$ and $285 \mu g AFG_2/kg diet$, o., for 21 days), conc. range: $0.05-1.41 \mu g/kg^*$, country: USA¹³⁸, *after \approx 22 days (thereof 21 days of AFs-administration)

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB.) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 1.17 µg/kg*, country: France314, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

AFLATOXIN B₂ incidence: 1/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AF), o., daily for 33 days; for detailed information please see the article), conc.: 0.34 ppb*, country: France⁸⁸, *after 33 days

incidence: 20/20*, sa. const.: male and female Danish Landrace pigs,

age: \approx 8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nd, country: Denmark/ USA¹⁰¹, *control

incidence: 16/16*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 300 ppb AFs), o., for 120-231 days**; for detailed information please see the article), conc.: nd**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, **after 120-231 days incidence: 2/17*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB₁ + AFB₂ addition (overall **500 ppb** AFs), o., for 150 or 186 days**; for detailed information please see the article), conc. range: tr**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, **after 150 or 186 days

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μ g AFB₁/kg diet, 273 μ g AFB₂/kg diet, 300 μ g AFG₁/kg diet and 285 μ g AFG₂/kg diet, o., for 21 days), conc. range: tr–0.14 μ g/kg*, country: USA¹³⁸, *after ≈22 days (thereof 21 days of AF-administration)

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France³¹⁴, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,)

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for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 1.17 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

AFLATOXIN B_{2a} incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, weight: 24.5–26.3 kg, contamination: no AFs fed, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (662 μ g AFB₁/kg diet, 273 μ g AFB₂/kg diet, 300 μ g AFG₁/kg diet and 285 μ g AFG₂/kg diet, o., for 21 days), conc. range: appreciable amounts*, country: USA¹³⁸, *after ≈22 days (thereof 21 days of AF-administration)

AFLATOXIN M₁ incidence: 1/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AF), o., daily for 33 days; for detailed information please see the article), conc.: 0.18 ppb*, country: France⁸⁸, *after 33 days

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control

incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: $662 \mu g AFB_1/kg diet$, 273 $\mu g AFB_2/kg diet$, 300 $\mu g AFG_1/kg diet$ and 285 $\mu g AFG_2/kg diet$, o., for 21 days), conc. range: 0.05–0.54 $\mu g/kg^*$, country: USA¹³⁸, *after \approx 22 days (thereof 21 days of AF-administration)

AFLATOXIN M

incidence: 20/20*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nd, country: Denmark/ USA101, *control incidence: 16/16*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall **300 ppb** AFs), o., for 120-231 days**; for detailed information please see the article), conc.: nd**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, **after 120-231 days incidence: 1/17*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall **500 ppb** AFs), o., for 150 days**; for detailed information please see the article), conc.: tr**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, **after 150 days

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France³¹⁴, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB₁) for 26 days; for detailed information

please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 0.15 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

DEOXYNIVALENOL

incidence: 4/4*, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: USA⁶⁴, *control

incidence: ?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: artificial (dose: **0.9 ppm DON** (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 18 ppb* (mean value), country: USA⁶⁴, *after 3 weeks post-treatment incidence: ?/4 sa. const.: barrows and

incidence: ?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: artificial (dose: 2.0 ppm DON (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 9 ppb* (mean value), country: USA⁶⁴, *after 3 weeks post-treatment

incidence: ?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: artificial (dose: 2.8 ppm DON (analyzed value) in the diet, o., for 3 weeks; for detailed

information please see the article), conc.: 10 ppb* (mean value), country: USA⁶⁴, *after 3 weeks post-treatment

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰⁷, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg DON/
kg b. wt., i.v., once), conc. range: ≤48.0 ng/g*
(mean value), country: Canada⁴⁰⁷, *after 1 h
(also measured after 0.33, 3, 8, and 24 h,
lowest conc.: nd after 24 h)

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.48–0.68 ng/g*, Ø conc.: 0.58 ng/g*, country: USA⁴²⁵, *after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.80-1.23 ng/g*, \emptyset conc.: 1.015 ng/g*, country: USA⁴²⁵, *after 4 h

OCHRATOXIN A

incidence: 4/4*, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany365, *control incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 19.29 ng/g* (mean value), country: Germany³⁶⁵, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning and

evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 5.05 ng/g* (mean value), country: Germany³⁶⁵, *after 28 days

incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning total OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 6.28 ng/g* (mean value), country: Germany³⁶⁵, *after 28 days

incidence: 8?/8*, sa. const.: pigs, contamination: no OTA (for detailed information please see the article), conc.: <0.39 µg/kg (mean value), country: Germany366, *control incidence: ?/8, sa. const.: pigs, contamination: artificial (dose: 22.11 mg OTA (in total), o., for 90 days; for detailed information please see the article), conc.: 12.9 µg/kg (mean value), country: Germany366, *after 90 days incidence: ?/8, sa. const.: pigs, contamination: artificial (dose: 88.44 mg OTA (in total), o., for 90 days; for detailed information please see the article), conc.: 50.1 μg/kg (mean value), country: Germany366, *after 90 days

T-2 Toxin

incidence: 1/1, sa. const.: female weanling crossbred Yorkshire × Duroc × Hampshire swine, wt.: 7.5 kg, contamination: artificial (dose: 0.1 mg T-2 toxin (labeled)/kg b. wt., intubated, once), conc.: 3.9 ppb* ** ****, country: USA³¹⁸, *calculated residue level, **T-2 toxin and/or metabolites, ***after 18 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.06–0.32 ng/g*, Ø conc.: 0.19 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 23–26 ng/g*, Ø conc.: 24.5 ng/g* **, country: USA⁴²⁵, *after 4 h, **total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.19–0.58 ng/g*, Ø conc.: 0.385 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 Tetraol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.04 ng/g*, Ø conc.: 0.04 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.88–1.38 ng/g*, Ø conc.: 1.13 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.04–0.14 ng/g*, Ø conc.: 0.09 ng/g*, country: USA⁴²⁵, *after 4 h

$\alpha\text{-}Z\text{earalenol}$

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country Hungary 632 , *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days, conc.: <10 μ g/kg*, country: Hungary 632 , *after 14 days)

Pig ileum may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 7.09–9.75 ng/g*, Ø conc.: 8.42 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 6.77–17.69 ng/g* **, Ø conc.: 12.23 ng/g* **, country: USA⁴²⁵, *in ileum contents, **after 4 h

DEEPOXY HT-2 TOXIN

incidence: 1/2, sa. const.: female crossbred Yorkshire \times Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 1.72 ng/g*, country: USA 425 , *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 2.06–3.12 ng/g* **, Ø conc.: 2.59 ng/g* **, country: USA⁴²⁵, *in ileum contents, **after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 24.83–29.27 ng/g*, Ø conc.: 27.05 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 66.70–67.56 ng/g* **, Ø conc.: 67.13 ng/g* **, country: USA⁴²⁵, *in ileum contents, **after 4 h

T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 5.02–7.32 ng/g*, Ø conc.: 6.17 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 498–554 ng/g*, Ø conc.: 526 ng/g**, country: USA⁴²⁵, *after 4 h, **total metabolites

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 10.64–12.61 ng/g* **, Ø conc.: 11.625 ng/g* **, country: USA⁴²⁵, *in ileum contents, **after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1,406–1,644 ng/g* **, Ø conc.: 1,525 ng/g* ** ***, country: USA⁴²⁵, *in ileum contents, **after 4 h, ***total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.41–3.02 ng/g*, Ø conc.: 2.22 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/ kg b. wt., i.vs., once), conc. range: 5.43–6.64 ng/g* **, Ø conc.: 6.035 ng/g* **, country: USA⁴²⁵, *in ileum contents, **after 4 h

T-2 Tetraol

Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/ kg b. wt., i.vs., once), conc. range: 4.29–13.36 ng/g*, Ø conc.: 8.825 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 13.66–41.75 ng/g* **, Ø conc.: 27.705 ng/g* **, country: USA⁴²⁵, *in ileum contents, **after 4 h

incidence: 2/2, sa. const.: female crossbred

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.76–5.98 ng/g*, Ø conc.: 3.87 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 13.57–14.99 ng/g* **, Ø conc.: 14.28 ng/g* **, country: USA⁴²⁵, *in ileum contents, **after 4 h

T-2 Triol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.67–0.86 ng/g*, Ø conc.: 0.765 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 3.63–6.24 ng/g* **, Ø conc.: 4.935 ng/g* **, country: USA⁴²⁵, *in ileum contents, **after 4 h

DEEPOXY T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.55–0.75 ng/g*, Ø conc.: 0.65 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 1.97 ng/g* **, country: USA⁴²⁵, *in ileum contents, **after 4 h

Pig intestine may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰⁷, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial
(dose: 1.0 mg DON/kg b. wt., i.v., once),
conc. range: ≤20.4 ng/g* (mean value),
country: Canada⁴⁰⁷, *after 0.33 h
(also measured after 1, 3, 8, and 24 h,
lowest conc.: nd after 24 h)

incidence: ?/11, sa. const.: castrated male pigs, Ø wt.: 88.1 kg, contamination: artificial (dose: 4.2 mg DON/kg, o., for 7 days), conc. range: ≈≤1,300 ng/g* ** (mean value), country: Germany⁴¹³, *in small intestine, **4 h after final DON-administration (also at other hour intervals up to 24 h measured, lowest conc.: ≈20 ng/g after 24 h)

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and

unlabeled)/kg b. wt., i.vs., once), conc. range: 1.50–7.20 ng/g* **, Ø conc.: 4.35 ng/g* **, country: USA⁴²⁵, *in large intestine, **after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.32–8.91 ng/g* **, Ø conc.: 5.115 ng/g* **, country: USA⁴²⁵, *in large intestine contents, **after 4 h

DEEPOXY HT-2 TOXIN

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.17 ng/g* **, country: USA⁴²⁵, *in large intestine, **after 4 h incidence: 12, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.31 ng/g* **, country: USA⁴²⁵, *in large intestine contents, **after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 3.56–13.99 ng/g* **, Ø conc.: 8.775 ng/g* **, country: USA⁴²⁵, *in large intestine, **after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 7.02–13.49 ng/g* ***, Ø conc.: 10.255 ng/g* ***, country: USA⁴²⁵, *in large intestine contents, **after 4 h

OCHRATOXIN A

incidence: 4/4*, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article),

conc.: nd, country: Germany365, incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 15.68 ng/g* (mean value), country: Germany365, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 4.37 ng/g* (mean value), country: Germany365, *after 28 incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning total OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 5.21 ng/g* (mean value), country: Germany365, *after 28 days

T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.42-5.82 ng/g* **, Ø conc.: 3.12 ng/g* **, country: USA⁴²⁵, *in large intestine, **after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 48-142 ng/g* **, Ø conc.: 95 ng/g* ** ***, country: USA425, *in large intestine, **after 4 h, ***total metabolites incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg,

contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.31–9.87 ng/g* **, Ø conc.: 5.09 ng/g* **, country: USA⁴²⁵, *in large intestine contents, **after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 68–181 ng/g* **, Ø conc.: 124.5 ng/g* ** ***, country: USA⁴²⁵, *in large intestine contents, **after 4 h, ***total metabolites

3'-Hydroxy T-2 Toxin incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.45-3.65 ng/g* **, Ø conc.: 2.55 ng/g* **, country: USA425, *in large intestine, **after 4 h incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 4.71 ng/g* **, country: USA⁴²⁵, *in large intestine contents, **after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.02-3.06 ng/g* **, Ø conc.: 2.04 ng/g* **, country: USA⁴²⁵, *in large intestine, **after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.10-2.60 ng/g* **, Ø conc.: 1.85 ng/g* **, country: USA425, *in large intestine contents, **after 4 h

T-2 Triol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.33-1.38 ng/g* **, Ø conc.: 0.855 ng/g* **, country: USA⁴²⁵, *in large intestine, **after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.55-2.17 ng/g* **, Ø conc.: 1.36 ng/g* **, country: USA425, *in large intestine contents, **after 4 h

DEEPOXY T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: nd* **, country: USA⁴²⁵, *in large intestine, **after 4 h incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.76 ng/g* **, country: USA⁴²⁵, *in large intestine contents, **after 4 h

Pig jejunum may contain the following mycotoxins and/or their metabolites:

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 3.54–3.58 ng/g*, Ø conc.: 3.56 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 4.22–4.25 ng/g* **,

Ø conc.: 4.235 ng/g* **, country: USA⁴²⁵, *in jejunum contents, **after 4 h

DEEPOXY HT-2 TOXIN

incidence: 1/2, sa. const.: female crossbred Yorkshire \times Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.40 ng/g*, country: USA 425 , *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: nd* **, country: USA⁴²⁵, *in jejunum contents, **after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 7.36–7.38 ng/g*, Ø conc.: 7.37 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 12.23–15.85 ng/g* **, Ø conc.: 14.04 ng/g* **, country: USA⁴²⁵, *in jejunum contents, **after 4 h

T-2 Toxin

incidence: 2?/2*, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nr, country: USA⁴⁰³, *control incidence: 1/?, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: artificial (dose: 2.4 mg T-2 toxin/kg, i.a., once), conc.: 374 ppb*
**, country: USA⁴⁰³, *in jejunum contents, **after ≈ 9.5. h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt.,

Ø conc.: 1.18 ng/g*, country: USA425, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 149-180 ng/g*, Ø conc.: 164.5 ng/g* **, country: USA425, *after 4 h, **total metabolites incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.17-1.40 ng/g* **, Ø conc.: 1.285 ng/g* **, country: USA425, *in

i.vs., once), conc. range: 1.04-1.32 ng/g*,

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 303–316 ng/g* ***, Ø conc.: 309.5 ng/g* ** ****, country: USA⁴²⁵, *in jejunum contents, **after 4 h, ***total metabolites

ieiunum contents, **after 4 h

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.99–1.71 ng/g*, Ø conc.: 1.35 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.64–2.42 ng/g* **, Ø conc.: 1.53 ng/g* **, country: USA⁴²⁵, *in jejunum contents, **after 4 h

T-2 Tetraol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 2.67–3.78 ng/g*,

Ø conc.: 3.225 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 3.37–7.52 ng/g* **, Ø conc.: 5.445 ng/g* **, country: USA⁴²⁵, *in jejunum contents, **after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.70–1.82 ng/g*, Ø conc.: 1.76 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 3.40–4.57 ng/g* **, Ø conc.: 3.985 ng/g* **, country: USA⁴²⁵, *in jejunum contents, **after 4 h

T-2 Triol.

incidence: 2/2, sa. const.: female crossbred Yorkshire \times Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.36–0.39 ng/g*, \emptyset conc.: 0.375 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.40–0.54 ng/g* **, Ø conc.: 0.47 ng/g* **, country: USA⁴²⁵, *in jejunum contents, **after 4 h

DEEPOXY T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: nd*, country: USA⁴²⁵, *after 4 h

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc.: 0.44 ng/g* **, country: USA⁴²⁵, *in jejunum contents, **after 4 h

Pig kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 3/3, sa. const.: castrated male pigs of mixed breed, wt.: 9–11 kg, contamination: artificial (acute study, dose: 1 mg AFB₁/kg b. wt., o., once), conc. range: ≤4.47 ng/g*, country: USA³62, *in pig that died after 22 h (2 other pigs sacrificed 24 and 72 h after treatment showed lower mycotoxin values)

AFLATOXIN B,

incidence: 2/2*, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 41 ng AFB,/g diet, o., for 3 weeks (control); for detailed information please see the article), conc.: nd**, country: USA60, *control, **sacrificed on withdrawal day 0 (animals sacrificed later showed no AFB, contamination) incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 341 ng AFB,/g diet, o., for 3 weeks; for detailed information please see the article), conc.: nd*, country: USA60, *sacrificed on withdrawal day 0 (animals sacrificed later showed no AFB, contamination) incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 866 ng AFB,/g diet, o., for 3 weeks; for detailed information please see the article), conc.: nd*, country: USA60, *sacrificed on withdrawal day 0 (animals sacrificed later showed no AFB, contamination) incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs,

age: 3-4 weeks, contamination: artificial

(dose: 1,253 ng AFB₁/g diet, o., for 3 weeks; for detailed information please see the article), conc. range: 0.10–0.22 ng/g tissue*, Ø conc.: 0.16 ng/g tissue*, country: USA⁶⁰, *sacrificed on withdrawal day 0 (animals sacrificed later showed no AFB₁ contamination)

incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglet, wt.: 15 kg, contamination: artificial (dose: 3.1 µg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 2.4 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after 24 h

incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglet, wt.: 15 kg, contamination: artificial (dose: 3.1 µg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 1.3 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after 48 h

incidence: 2/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc. range: 0.08–2.47 ppb*, Ø conc.: 1.28 ppb*, country: France⁸⁸, *after 33 days

incidence: 20/20*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nd, country: Denmark/ USA101, *control incidence: 11/16*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall **300 ppb** AFs), o., for 150** or 186*** days; for detailed information please see the article), conc. range: tr**-10*** ppb, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, after 150** or 186*** days

incidence: 11/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB₁ + AFB₂ addition (overall 500 ppb AFs), o., for 135** or 159*** days; for detailed information please see the article), conc. range: tr***−50** ppb, country: Denmark/USA¹0¹, *livers of some of these pigs were rejected at meat inspection, after 135** or 159*** days

incidence: 3/4*, sa. const.: male and

female feeder pigs, wt.: 54.2-71.6 kg, contamination: no AFB,, conc.: <0.12 µg/kg, country: USA136, *control incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 100 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.10-0.37 μg/kg*, Ø conc.: 0.23 μg/kg*, country: USA136, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 200 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.23-1.50 μg/kg*, Ø conc.: 0.70 μg/kg*, country: USA136, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 400 µg

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μg AFB₁/kg diet, 273 μg AFB₂/kg diet, 300 μg AFG₁/kg diet and 285 μg AFG₂/kg diet, o., for 21 days), conc. range: 0.05–0.75 μg/kg*, country: USA¹³⁸, *after ≈22 days (thereof 21 days of AF-administration)

AFB,/kg diet, o., for 4 weeks), conc. range:

0.63-10.0 μg/kg, Ø conc.: 4.44 μg/kg,

country: USA136, *after 4 weeks

incidence: 10/10*, sa. const.: mixed breed feeder pigs, contamination: chronic study, no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁸², *control

incidence: 10?/10, sa. const.: mixed breed

(chronic study, dose: 400 ng natural AFs/g

feeder pigs, contamination: artificial

diet, for 10 weeks; for detailed information please see the article), conc.: 0.20 ng/g* (wet matter basis) (mean value), country: USA182, *after 10 weeks incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: 800 ng natural AFs/g diet, for 10 weeks; for detailed information please see the article), conc.: 0.25 ng/g* (wet matter basis) (mean value), country: USA182, *after 10 weeks incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: acute study, no AFs, conc.: nd, country: USA182, *control incidence: 1/1(8)*, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: 1.2 mg total AFs $(AFB_1 + AFB_2 + AFG_1 + AFG_2)/kg$ b. wt., o., once), conc. range: ≤3.80 ng/g** (wet matter basis), country: USA182, *for overall information please see the article, **12 h post-dosage (also measured 24, 48 and 72 h post-dosage, lowest conc.:

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 2/2, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose:

nd after 72 h)

natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19* or 26** days; for detailed information please see the article), conc. range: 0.26*-0.244** μg/kg, country: France³¹⁴, final wt. of the animals 97* and 105** kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: 0.73 μg/kg*, country: France³¹⁴, *final wt. of the animal 104 kg

incidence: 3/3, sa. const.: castrated male pigs of mixed breed, wt.: 9-11 kg, contamination: artificial (acute study, dose: 1 mg AFB,/kg b.w., o., once), conc. range: ≤23.6 ng/g*, country: USA³⁶², *in pig that died after 22 h (2 other pigs sacrificed 24 and 72 h after treatment showed lower mycotoxin values) incidence: 2/5, sa. const.: market-weight pigs, wt.: ≈92 kg, contamination: artificial (subacute study, dose: ≈15 μg AFB, as well as AFB,, AFG, + AFG, (all natural)/kg b. wt., o., for 14 days; for detailed information please see the article), conc. range: 0.13-0.6 ng/g*, Ø conc.: 0.365 ng/g*, country: USA362, *after 14 days

incidence: 5?/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 0.027 ng/g** (mean value), country: USA⁵⁹⁷, *control, **after 35 days incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 0.681 ng/g* (mean value), country: USA⁵⁹⁷, *after 35 days incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g AFB₁ + AFB₂ + 0.5% HSCAS, o.,

for 35 days; for detailed information please see the article), conc.: 0.410 ng/g* (mean value), country: USA⁵⁹⁷, *after 35 days

incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB, + AFB, o., for 15 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + **AFB**₂, o., for 15 days; for detailed information please see the article), conc.: 0.410 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: 0.250 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + AFB₂, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: nd*, country: USA597, *after 29 days (thereof 15 days of AFB, - and AFB,-administration)

AFLATOXIN B₂ incidence: 2/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc. range: tr–1.01 ppb*, country: France⁸⁸, *after 33 days

incidence: 20/20*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nd, country: Denmark/ USA¹⁰¹, *control incidence: 6/16*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at

90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 300 ppb AFs), o., for 164** or 180*** days; for detailed information please see the article), conc. range: tr**-10*** ppb, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, after 164** or 180*** days incidence: 7/17*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB₁ + AFB₂ addition (overall 500 ppb AFs), o., for 141** or 216*** days; for detailed information please see the article), conc. range: tr***-10 ppb**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, after 141** or 216*** days

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μg AFB₁/kg diet, 273 μg AFB₂/kg diet, 300 μg AFG₁/kg diet and 285 μg AFG₂/kg diet, o., for 21 days), conc. range: tr–0.55 μg/kg*, country: USA¹³⁸, *after ≈22 days (thereof 21 days of AF-administration)

incidence: 10/10*, sa. const.: mixed breed feeder pigs, contamination: chronic study, no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁸², *control

incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: **400 ng natural AFs**/g diet, for 10 weeks; for detailed information please see the article), conc.: 0.02 ng/g* (wet matter basis) (mean value), country: USA¹⁸², *after 10 weeks incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: **800 ng natural AFs**/g diet, for 10 weeks; for detailed

information please see the article), conc.: 0.05 ng/g* (wet matter basis) (mean value), country: USA¹⁸², *after 10 weeks

incidence: $8/8^*$, sa. const.: mixed breed feeder pigs, contamination: acute study, no AFs, conc.: nd, country: USA¹⁸², *control incidence: $1/1(8)^*$, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: **1.2 mg total AFs** (AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range: ≤ 1.52 ng/g** (wet matter basis), country: USA¹⁸², *for overall information please see the article, **24 h post-dosage (also measured 12, 48 and 72 h post-dosage, lowest conc.: nd after 72 h)

incidence: ?/?*, sa. const.: Large White

growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB.) for 26 days; for detailed information please see the article), conc.: nd*, country: France314, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 0.109 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: 1.60 μg/kg*, country: France³¹⁴, *final wt. of the animal 104 kg

incidence: 5/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB, + AFB, o., for 35 days; for detailed information please see the article), conc.: nd, country: USA597, *control incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 0.138 ng/g* (mean value), country: USA⁵⁹⁷, *after 35 days incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g $AFB_{1} + AFB_{2} + HSCAS (0.5\%)$, o., for 35 days; for detailed information please see the article), conc.: 0.002 ng/g* (mean value), country: USA597, *after 35 days incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB, + AFB, o., for 15 days; for detailed information please see the article), conc.: nd, country: USA597, *control incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: $590 \text{ ng/g AFB}_1 + \text{AFB}_2$, o., for 15 days; for detailed information please see the article), conc.: 0.080 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB, + AFB, + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: 0.050 ng/g* (mean value), country: USA⁵⁹⁷, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: $590 \text{ ng/g AFB}_1 + \text{AFB}_2$, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: nd*, country: USA⁵⁹⁷, *after 29 days (thereof 15 days of AFB, - and AFB₃-administration)

AFLATOXIN B_{2a} incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control

incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: $662 \mu g$ AFB₁/kg diet, 273 μg AFB₂/kg diet, 300 μg AFG₁/kg diet and 285 μg AFG₂/kg diet, o., for 21 days), conc. range: appreciable amounts*, country: USA¹³⁸, *after \approx 22 days (thereof 21 days of AF-administration)

AFLATOXIN G,

incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: acute study, no AFs, conc.: nd, country: USA¹⁸², *control

incidence: 1/1(8)*, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: 1.2 mg total AFs (AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range: ≤0.60 ng/g** (wet matter basis), country: USA¹⁸², *for overall information please see the article, **12 h post-dosage (also measured 24, 48 and 72 h post-dosage, lowest conc.: nd after 24, 48 and 72 h (several animals))

AFLATOXIN G,

incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: acute study, no AFs, conc.: nd, country: USA¹⁸², *control incidence: 1/1(8)*, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: **1.2 mg total AFs** (AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range: ≤ 0.07 ng/g** (wet matter basis), country: USA¹⁸², *for overall information please see the article, **12 h post-dosage (also measured 24, 48 and 72 h post-dosage, lowest conc.: nd after 24, 48 and 72 h (several animals))

AFLATOXIN M,

incidence: 1/2*, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3–4 weeks, contamination: artificial (dose: 41 ng AFB₁/g diet, o., for 3 weeks (control); for detailed information please see the article), conc.: tr**, country: USA⁶⁰, *control, **sacrificed on withdrawal day 0 (animals sacrificed later showed no AFM₁-contamination)

incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3–4 weeks, contamination: artificial (dose: 341 ng AFB₁/g diet, o., for 3 weeks; for detailed information please see the article), conc. range: 0.18–0.34 ng/g tissue*, Ø conc.: 0.26 ng/g tissue*, country: USA⁶⁰, *sacrificed on withdrawal day 0 (animals sacrificed later showed no AFM₁-contamination) incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross

incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 866 ng AFB₁/g diet, o., for 3 weeks; for detailed information please see the article), conc. range: 0.67-1.02 ng/g tissue*, Ø conc.: 0.845 ng/g tissue*, country: USA⁶⁰, *sacrificed on withdrawal day 0 (animals sacrificed later showed lower or no residue values)

incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3–4 weeks, contamination: artificial (dose: 1,253 ng AFB₁/g diet, o., for 3 weeks; for detailed information please see the article), conc. range: 0.093–1.30 ng/g tissue*, Ø conc.: 0.604 ng/g tissue*, country: USA⁶⁰, *sacrificed on withdrawal day 0 (animals sacrificed later showed lower or no residue values)

incidence: 2/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc. range: 2.03–10.00 ppb*, Ø conc.: 6.02 ppb*, country: France⁸⁸, *after 33 days

incidence: $3/4^*$, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: no AFB₁, conc.: <0.07 µg/kg, country: USA¹³⁶, *control incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 100 µg AFB₁/kg diet, o., for 4 weeks), conc. range: 0.09-0.23 µg/kg*, \emptyset conc.: 0.18 µg/kg*, country: USA¹³⁶, *after 4 weeks

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incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2–71.6 kg, contamination: artificial (dose: 200 μ g AFB₁/kg diet, o., for 4 weeks), conc. range: 0.29–1.29 μ g/kg*, \emptyset conc.: 0.75 μ g/kg*, country: USA¹³⁶, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2–71.6 kg, contamination: artificial (dose: 400 μ g AFB₁/kg diet, o., for 4 weeks), conc. range: 0.18–0.68 μ g/kg*, \emptyset conc.: 0.38 μ g/kg*, country: USA¹³⁶, *after 4 weeks

incidence: $4/4^*$, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5-26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5-26.3 kg, contamination: artificial (dose: $662 \mu g$ AFB₁/kg diet, 273 μg AFB₂/kg diet, 300 μg AFG₁/kg diet and 285 μg AFG₂/kg diet, o., for 21 days), conc. range: probably tr*, country: USA¹³⁸, *after \approx 22 days (thereof 21 days of AF-administration)

incidence: 10/10*, sa. const.: mixed breed feeder pigs, contamination: chronic study, no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁸², *control

incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: 400 ng natural AFs/g diet, for 10 weeks; for detailed information please see the article), conc.: 0.61 ng/g* (wet matter basis) (mean value), country: USA182, *after 10 weeks incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: 800 ng natural AFs/g diet, for 10 weeks; for detailed information please see the article), conc.: 0.91 ng/g* (wet matter basis) (mean value), country: USA182, *after 10 weeks incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: acute study, no AFs, conc.: nd, country: USA182, *control

incidence: $1/1(8)^*$, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: 1.2 mg total AFs (AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range: \le 4.10 ng/g** (wet matter basis), country: USA¹⁸², *for overall information please see the article, **24 h post-dosage (also measured 12, 48 and 72 h post-dosage, lowest conc.: nd after 72 h)

incidence: 3/3, sa. const.: castrated male pigs of mixed breed, weight: 9-11 kg, contamination: artificial (acute study, dose: 1 mg AFB,/kg b. wt., o., once), conc. range: ≤11.2 ng/g*, country: USA³⁶², *in pig that died after 22 h (2 other pigs sacrificed 24 and 72 h after treatment showed lower mycotoxin values) incidence: 5/5, sa. const.: market-weight pigs, weight: ≈92 kg, contamination: artificial (subacute study, dose: ≈15 µg AFB, as well as AFB, AFG, + AFG, (all natural)/kg b. wt., o., for 14 days; for detailed information please see the article), conc. range: 1.10-2.63 ng/g*, Ø conc.: 1.46 ng/g*, country: USA362, *after 14 days

incidence: 5?/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 0.166 ng/g** (mean value), country: USA⁵⁹⁷, *control, **after **35 days** incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g AFB**₁ + **AFB**₂, o., for 35 days; for detailed information please see the article), conc.: 3.132 ng/g* (mean value), country: USA⁵⁹⁷, *after **35 days**

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g** AFB₁ + AFB₂ + HSCAS (0.5%), o., for 35 days; for detailed information please see the article), conc.: 0.804 ng/g* (mean value), country: USA⁵⁹⁷, *after **35 days**

incidence: 5?/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB₁ + AFB₂, o., for 15 days; for detailed

information please see the article), conc.: 0.030 ng/g** (mean value), country: USA597, *control, **after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + **AFB**₂, o., for 15 days; for detailed information please see the article), conc.: 5.980 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: 1.690 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: $590 \text{ ng/g AFB}_1 + \text{AFB}_2$, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: 0.050 ng/g* (mean value), country: USA⁵⁹⁷, *after 29 days (thereof 15 days of AFB, - and AFB, administration)

AFLATOXIN M

female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nd, country: Denmark/ USA101, *control incidence: 2/16*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 300 ppb AFs), o., for 120** or 164*** days; for detailed information please see the article), conc. range: tr***-3** ppb, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, after 120** or 164*** days incidence: 4/17*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose:

incidence: 20/20*, sa. const.: male and

AFB₁ + AFB₂ addition (overall **500 ppb** AFs), o., for **135** or 186*** days**; for detailed information please see the article), conc. range: tr***-3** ppb, country: Denmark/USA¹⁰¹, *livers of some of these pigs were rejected at meat inspection, after 135** or 186*** days

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 1.32 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: 2.50 μg/kg*, country: France³¹⁴, *final wt. of the animal 104 kg

CITRININ

incidence: 13/13*, sa. const.: castrated pigs, wt.: 20 kg, contamination: no OTA and/or CIT (for detailed information please see the article), conc.: nd?, country: Denmark/USA³³⁰, *control

incidence: 13/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 µg crystalline OTA/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: nd*, country: Denmark/USA330, *after 6 weeks incidence: 13?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 650 µg crystalline CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: pr*, country: Denmark/USA330, *after 6 weeks incidence: 13?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 µg crystalline OTA + 650 µg crystalline CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: pr*, country: Denmark/ USA330, *after 6 weeks incidence: 13?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: $1,400 \mu g$ natural OTA + 650 μg natural CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: pr*, country: Denmark/ USA330, *after 6 weeks

DEOXYNIVALENOL

DON (for detailed information please see the article), conc.: nd, country: USA64, *control incidence: 4?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: artificial (dose: 0.9 ppm DON (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 19 ppb*, country: USA64, *after 3 weeks post-treatment incidence: 4?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: artificial (dose: 2.0 ppm DON (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 19 ppb* (mean value), country: USA64, *after 3 weeks post-treatment incidence: 4?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination:

incidence: 4/4*, sa. const.: barrows and

gilts, Ø wt.: 7.7 kg, contamination: no

artificial (dose: **2.8 ppm DON** (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 23 ppb* (mean value), country: USA⁶⁴, *after 3 weeks post-treatment

incidence: 6/6*, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada406, *control incidence: 50?/50, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: artificial (dose: 6.0 mg natural DON/kg dry weight, o., for 3 weeks; for detailed information please see the article), conc. range: ≤52.5 ng/g*, country: Canada⁴⁰⁶, *after 3 weeks incidence: 6/6*, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada406, *control incidence: 6?/6, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: artificial (dose: 6.0 mg crystalline DON/kg dry weight, o., for 4 weeks; for detailed information please see the article), conc. range: ≤15.7 ng/g*, country: Canada406, *after 4 weeks incidence: 6/6*, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada406, *control incidence: 6?/6, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: artificial (dose: 7.6 mg natural DON/kg dry weight, o., for 7 weeks; for detailed information please see the article), conc. range: ≤6.5 ng/g*, country: Canada⁴⁰⁶, *after 7 weeks

incidence: 5/5*, sa. const.: healthy Yorkshire barrows, age: ≈11–15 weeks, wt.: 17–22 kg, contamination: no DON, conc.: nd, country: Canada⁴⁰⁷, *control incidence: ?/4, sa. const.: healthy Yorkshire barrows, age: ≈11–15 weeks, wt.: 17–22 kg, contamination: artificial (dose: 1.0 mg DON/kg b. wt., i.v., once), conc. range: ≤1,985.3 ng/g* (mean value), country: Canada⁴⁰⁷, *after 1 h (also measured after 0.33, 3, 8 and 24 h, lowest conc.: 10.0 ng/g after 24 h)

incidence: 5?/5, sa. const.: castrated Large White × German Landrace, db Classic crossbred pigs, wt.: ≈24.6 kg, contamination: artificial (dose: 0.05, 0.57 or 1.23* mg DON/kg mash* or 0.07, 0.55 or 1.13 mg DON/kg pellets, o., for 11 weeks; for detailed information please see the article), conc. range: ≤19.3 ng/g* ** **** (mean value), country: Germany⁴⁸³, **after 78/79 days (thereof 11 weeks of DON-administration), ***values of the other DON-treatments lower

Deepoxydeoxynivalenol

incidence: 5?/5, sa. const.: castrated Large White × German Landrace, db Classic crossbred pigs, wt.: ≈24.6 kg, contamination: artificial (dose: 0.05, 0.57 or 1.23 mg DON/kg mash or 0.07, 0.55 or 1.13* mg DON/kg pellets*, o., for 11 weeks; for detailed information please see the article), conc. range: ≤2.4 ng/g* ** *** (mean value), country: Germany⁴⁸³, **after 78/79 days (thereof 11 weeks of DON-administration), ***values of the other DON-treatments lower

FUMONISIN B, incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany87, *control incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB_1 , 20 mg FB_2 + 5 mg FB_3 /animal, o., for 22 days; for detailed information please see the article), conc. range: 22.4-47.2 ng/g*, Ø conc.: 30.56 ng/g*, country: Hungary/Germany87, *after 22 days toxin feeding period

incidence: 6?/6*, sa. const.: Yorkshire barrows, age: 6-8 weeks, wt.: 9-13 kg, contamination: no FB, (for detailed information please see the article), conc.: nr**, country: Canada108, *control incidence: ?/2, sa. const.: Yorkshire barrows, age: 6-8 weeks, wt.: 9-13 kg, contamination: artificial (dose: 3.0 mg FB, (labeled)/kg feed, o., for 12 days and 2.0 mg FB, (labeled)/kg feed, o., for another 12 days; for detailed information please see the article), conc.: ≈65 ng/g tissue* ** (mean value), country: Canada¹⁰⁸, *after 24 days (also at other day intervals up to 33 days measured), **FB, and/or metabolites

incidence: $6/6^*$, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: no FB₁ (for detailed information please see the article), conc.: nd, country: Germany/Hungary¹⁰⁹, *control incidence: 13/13, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5-11 days; for detailed information please see the article), conc. range: 82-4,760 µg/kg*, Ø conc.: 772.43 µg/kg*, country: Germany/Hungary¹⁰⁹, *on 6th day of the experiment

FUMONISIN B,

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc.: nd*, country: Hungary/Germany⁸⁷, *after 22 days toxin feeding period

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.08–1.45 ng/g*, Ø conc.: 1.265 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY HT-2 TOXIN

Pig

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.08 ng/g*, country: USA⁴²⁵, *after 4 h

3'-HYDROXY HT-2 TOXIN incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 4.96–5.41 ng/g*, Ø conc.: 5.185 ng/g*, country: USA⁴²⁵, *after 4 h

OCHRATOXIN A

incidence: 5/5*, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Denmark/USA102, *control incidence: 5?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed; for detailed information please see the article), conc.: 25.70 μg/kg* (mean value), country: Denmark/USA102, *1 day after termination of OTA-exposure incidence: 5?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed; for detailed information please see the article), conc.: 7.66 µg/kg* (mean value), country: Denmark/USA¹⁰², *8 days after termination of OTA-exposure

incidence: 5?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed; for detailed information please see the article), conc.: 3.02 µg/kg* (mean value), country: Denmark/USA¹⁰², *15 days after termination of OTA-exposure incidence: 5?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervalls fed; for detailed information please see the article), conc.: 0.54 μg/kg* (mean value), country: Denmark/USA102, *29 days after termination of OTA-exposure

incidence: ?/?, sa. const.: weaners (specific pathogen free), wt.: 14–18 kg, contamination: artificial (dose: ? µg OTA addition; for detailed information please see the article), conc. range: ≤61 µg/kg*, country: Denmark²⁰⁴, *calculated value based on the amount of OTA in blood after 24 h on toxin free diet

incidence: $1/1^*$, sa. const.: pregnant gilt, contamination: neither OTA nor OTB, conc.: nd, country: UK^{266} , *control incidence: 2/2, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg OTA + 0.13 mg OTB**/kg b. wt., o., for 8 days during early pregnancy), conc. range: $0.43-0.70 \mu g/g^*$, \emptyset conc.: $0.565 \mu g/g^*$, country: UK^{266} , *measured on day 30 of pregnancy

incidence: 13/13*, sa. const.: castrated pigs, wt.: 20 kg, contamination: no OTA and/or CIT (for detailed information please see the article), conc.: nd, country: Denmark/USA³³⁰, *control incidence: 13?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 µg crystalline OTA/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 17 µg/kg*

(mean value), country: Denmark/USA330, *after 6 weeks incidence: 13?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 650 µg crystalline CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: nd*, country: Denmark/USA330, *after 6 weeks incidence: 13?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 μg crystalline OTA + 650 μg crystalline CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 17 µg/kg* (mean value), country: Denmark/USA330, *after 6 weeks incidence: 13?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 μg natural OTA + 650 μg natural CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 67 µg/kg* (mean value), country: Denmark/USA330, *after 6 weeks

incidence: 8?/8*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 18.6 µg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 1); for detailed information please see the article), conc.: 16 μg/kg* (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old) incidence: 6?/6*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 8.0 µg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 2); for detailed information please see the article), conc.: 16 μg/kg* (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old) incidence: 8?/8*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 19.7 µg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 3); for detailed information please see the article), conc.: 23 μg/kg* (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old)

incidence: 4/4*, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany365, *control incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 20.73 ng/g* (mean value), country: Germany³⁶⁵, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 8.69 ng/g* (mean value), country: Germany365, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning total OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 10.54 ng/g* (mean value), country: Germany365, *after 28 days

incidence: 8?/8*, sa. const.: pigs, contamination: no OTA (for detailed information please see the article), conc.: <0.95 µg/kg (mean value), country: Germany366, *control incidence: 8?/8, sa. const.: pigs, contamination: artificial (dose: 22.11 mg OTA (in total) fed for 90 days; for detailed information please see the article), conc.: 16.2 μg/kg (mean value), country: Germany366, *after 90 days incidence: 8?/8, sa. const.: pigs, contamination: artificial (dose: 88.44 mg OTA (in total) fed for 90 days; for detailed information please see the article), conc.: 43.6 μg/kg (mean value), country: Germany366, *after 90 days

incidence: 2/2*, sa. const.: pigs, contamination: no OTA and/or DON (for detailed information please see the

article), conc. range: 0.16-0.35 ng/g, Ø conc.: 0.255 ng/g, country: Germany378, *control incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm crystalline OTA + 1.0 ppm crystalline DON, o., twice daily for 90 days; for detailed information please see the article), conc. range: 3.35-8.25 ng/g*, Ø conc.: 6.05 ng/g*, country: Germany³⁷⁸, *after 90 days incidence: 3/3, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm crystalline OTA, o., twice daily for 90 days; for detailed information please see the article), conc. range: 3.80-4.58 ng/g*, Ø conc.: 4.09 ng/g*, country: Germany378, *after 90 days incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 1.0 ppm crystalline DON!, o., twice daily for 90 days; for detailed information please see the article), conc. range: 0.42-0.81 ng/g*, Ø conc.: 0.61 ng/g*, country: Germany³⁷⁸, *after 90 days

incidence: 2/2*, sa. const.: pigs, contamination: no OTA and/or ZEA (for detailed information please see the article), conc.: nr, country: Germany³⁸⁰, *control

incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: **0.1** ppm OTA + **0.25** ppm ZEA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤9.64 ng/g*, country: Germany³80, *after 91 days (thereof 90 days of OTA- and ZEA-administration) incidence: 3/3, sa. const.: pigs, contamination: artificial (dose: **0.1** ppm OTA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤4.63 ng/g*, country: Germany³80, *after 91 days (thereof 90 days of OTA-administration)

incidence: 3/3*, sa. const.: female pigs of Danish Landrace, age: 8–10 weeks, wt.: ≈20 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Denmark/ USA/Sweden³⁸³, *control incidence: 4?/4, sa. const.: female pigs of Danish Landrace, age: 8–10 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 mg crystalline OTA/kg feed, o., for 3 months; for detailed information please see the article), conc.: ≈26.5 µg/kg* (mean value), country: Denmark/USA/ Sweden³⁸³, *after ≈3 months

incidence: 9/9*, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: no OTA, conc.: nd, country: Germany409, incidence: 2/9, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: artificial (dose: 0.15 mg natural OTA/kg feed, o., daily for 28 days), conc. range: ≤4.0 µg/kg*, country: Germany⁴⁰⁹, *after 28 days incidence: 8/8*, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: no OTA, conc.: nd, country: Germany409, *control incidence: 6/6, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: artificial (dose: 0.58 mg natural OTA/kg feed, o., daily for 28 days), conc. range: ≤3.6 µg/kg*, country: Germany⁴⁰⁹, *after 28 days

T-2 Toxin

incidence: 1/1, sa. const.: female weanling crossbred Yorkshire × Duroc × Hampshire swines, wt.: 7.5 kg, contamination: artificial (dose: **0.1 mg T-2 toxin** (labeled)/kg b. wt., intubated, once), conc.: 15.9 ppb* ** ***, country: USA³¹⁸, *calculated residue level, **T-2 toxin and/or metabolites, ***after 18 h incidence: 1/1, sa. const.: female weanling crossbred Yorkshire × Duroc × Hampshire

swine, wt.: 9.5 kg, contamination: artificial (dose: **0.4 mg T-2 toxin** (labeled)/kg b. wt., intubated, once), conc.: 61.4 ppb* ** ***, country: USA³¹⁸, *calculated residue level, **T-2 toxin and/or metabolites, ***after 18 h

incidence: $2/2^*$, sa. const.: female swines of mixed breeding, wt.: 26-66 kg, contamination: no T-2 toxin, conc.: nr, country: USA⁴⁰³, *control incidence: 2/4, sa. const.: female swines of mixed breeding, wt.: 26-66 kg, contamination: artificial (dose: 1.2 mg T-2 toxin/kg, i.a., once), conc. range: $\approx \le 30$ ppb*, country: USA⁴⁰³, *after ≈ 2.1 h (also measured after ≈ 1 and 3 h, lowest value conc.: under limit of reliable quantitation after 3 h)

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.05–0.08 ng/g*, Ø conc.: 0.065 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 68–74 ng/g* ***, Ø conc.: 71 ng/g* ***, country: USA⁴²⁵, *after 4 h, **total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.47–0.81 ng/g*, Ø conc.: 0.64 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: tr-0.26 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 4.03–4.30 ng/g*, Ø conc.: 4.165 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 Triol.

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.14–0.16 ng/g*, Ø conc.: 0.15 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TRIOL

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.06 ng/g*, country: USA⁴²⁵, *after 4 h

ZEARALENONE

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ², contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days, conc.: 30 μg/ kg*, country: Hungary⁶³², *after 14 days) incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ², contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days, conc.: <10 μg/kg* **, country: Hungary⁶³², *after 14 days, **in fat around kidney)

α -Zearalenol

incidence: 2?/2*, sa. const.: pigs, contamination: no OTA and/or ZEA (for detailed information please see the article), conc.: nr, country: Germany³⁸⁰, *control

incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm

OTA + 0.25 ppm ZEA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤4.30 ng/g*, country: Germany³⁸⁰, *after 91 days (thereof 90 days of OTA- and ZEA-administration)

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary632, *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days, conc.: 220 μg/kg*, country: Hungary⁶³², *after 14 days) incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary632, *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days, conc.: 15 μg/kg* **, country: Hungary⁶³², *after 14 days, **in fat around kidney)

β-ZEARALENOL

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ², contamination: no ZEA, conc.: nd, country: Hungaryy⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days, conc.: 85 µg/kg*, country: Hungary⁶³², *after 14 days) incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ², contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days, conc.: <10 µg/kg* **, country: Hungary⁶³², *after 14 days, **in fat around kidney)

Pig Leaf Fat see Pig fat

Pig Lean see Pig muscle

Pig liver may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 3/3, sa. const.: castrated male pigs of mixed breed, wt.t: 9-11 kg,

contamination: artificial (acute study, dose: 1 mg AFB₁/kg b. wt., o., once), conc. range: \leq 1.68 ng/g*, country: USA³⁶², *in pig that died after 22 h (2 other pigs sacrificed 24 and 72 h after treatment showed lower mycotoxin values) incidence: 4/5, sa. const.: market-weight pigs, weight: \approx 92 kg, contamination: artificial (subacute study, dose: \approx 15 µg AFB₁ as well as AFB₂, AFG₁ + AFG₂ (all natural)/kg b. wt., o., for 14 days; for detailed information please see the article), conc. range: 0.01–0.02 ng/g*, \emptyset conc.: 0.015 ng/g*, country: USA³⁶², *after 14 days

AFLATOXIN B,

incidence: 2/2*, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 41 ng AFB,/g diet, o., for 3 weeks (control); for detailed information please see the article), conc.: nd**, country: USA60, *control, **sacrificed on withdrawal day 0 (animals sacrificed later showed no AFB,-contamination) incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 341 ng AFB₁/g diet, o., for 3 weeks; for detailed information please see the article), conc.: nd*, country: USA60, *sacrificed on withdrawal day 0 (animals sacrificed later showed no AFB,-contamination) incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: **866 ng AFB**₁/g diet, o., for 3 weeks; for detailed information please see the article), conc. range: 0.17-0.18 ng/g tissue*, Ø conc.: 0.175 ng/g tissue*, country: USA60, *sacrificed on withdrawal day 0 (animals sacrificed later showed no AFB,-contamination) incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 1,253 ng AFB,/g diet, o., for 3 weeks; for detailed information please

see the article), conc. range: 0.36–0.43 ng/g tissue*, Ø conc.: 0.395 ng/g tissue*, country: USA⁶⁰, *sacrificed on withdrawal day 0 (animals sacrificed later showed no AFB₁-contamination)

incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglets, wt.: 15 kg, contamination: artificial (dose: 3.1 µg AFB, (labeled)/kg b.w., o., once; for detailed information please see the article), conc.: 17.3 ppb* ** ***, country: Switzerland66, *AFB, eq., **total activity, ***after 24 h incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglets, wt.: 15 kg, contamination: artificial (dose: 3.1 µg AFB, (labeled)/kg b.w., o., once; for detailed information please see the article), conc.: 17.3 ppb* ** ***, country: Switzerland66, *AFB, eq., **total activity, ***after 48 h

incidence: 1/1, sa. const.: pig, contamination: artificial (dose: 1,200 ng AFB₁/g feed, o., for 3 weeks), conc.: 0.27 ng/g*, country: USA⁷⁵, *after 3 weeks?

incidence: 2/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc. range: 0.08–2.50 ppb*, Ø conc.: 1.29 ppb*, country: France⁸⁸, *after 33 days

incidence: 20/20*, sa. const.: male and female Danish Landrace pigs, age:
≈8 weeks, wt.: 20 kg up to slaughter at
90 kg, contamination: no AFB₁ + AFB₂
(for detailed information please see the article), conc.: nd, country:
Denmark/USA¹⁰¹, *control
incidence: 14/18*, sa. const.: male and female Danish Landrace pigs, age:
≈8 weeks, wt.: 20 kg up to slaughter at
90 kg, contamination: artificial
(dose: AFB₁ + AFB₂ addition (overall
300 ppb AFs), o., for 141** or 150*** days; for detailed information please see the article), conc. range: tr***-92** ppb,

country: Denmark/USA¹⁰¹, *included are liver sa. rejected at meat inspection, after 141** or 150*** days incidence: 14/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB₁ + AFB₂ addition (overall 500 ppb AFs), o., for 157** or 231*** days; for detailed information please see the article), conc. range: tr***−51 ppb**, country: Denmark/USA¹⁰¹, *included are liver sa. rejected at meat inspection, after 157** or 231*** days

incidence: 2/4*, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: no AFB, conc.: <0.12 µg/kg, country: USA136, *control incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 100 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.18-0.25 μg/kg*, Ø conc.: 0.23 μg/kg*, country: USA136, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 200 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.18-0.75 μg/kg*, Ø conc.: 0.48 μg/kg*, country: USA136, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt. 54.2-71.6 kg, contamination: artificial (dose: 400 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.70-2.66 μg/kg*, Ø conc.: 1.51 μg/kg*, country: USA136, *after 4 weeks

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μg AFB₁/kg diet, 273 μg AFB₂/kg diet, 300 μg AFG₁/kg diet and 285 μg AFG₂/kg diet, o., for 21 days), conc. range: 0.05–0.10 μg/kg*, country: USA¹³⁸, *after ≈22 days (thereof 21 days of AFs-administration)

incidence: 10/10*, sa. const.: mixed breed feeder pigs, contamination: chronic study, no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁸², *control

incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: 400 ng natural AFs/g diet, o., for 10 weeks; for detailed information please see the article), conc.: 0.51 ng/g* (wet matter basis) (mean value), country: USA182, *after 10 weeks incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: 800 ng natural AFs/g diet, o., for 10 weeks; for detailed information please see the article), conc.: 1.57 ng/g* (wet matter basis) (mean value), country: USA182, *after 10 weeks incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: acute study, no AFs, conc.: nd, country: USA182, *control incidence: 1/1(8)*, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: 1.2 mg total AFs $(AFB_1 + AFB_2 + AFG_1 + AFG_2)/kg$ b. wt., o., once, conc. range: ≤9.00 ng/g** (wet matter basis), country: USA182, *for overall information please see the article, **12 h post-dosage (also measured 24, 48 and 72 h post-dosage, lowest conc.: nd after 72 h)

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 2/2, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2:

separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 26* or 19** days; for detailed information please see the article), conc. range: $0.45*-6.10** \mu g/$ kg, country: France³¹⁴, final wt. of the animal 105* and 97** kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: 0.403 μg/kg*, country: France³¹⁴, *final wt. of the animal 104 kg

incidence: 3/3, sa. const.: castrated male pigs of mixed breed, wt.: 9-11 kg, contamination: artificial (acute study, dose: 1 mg AFB,/kg b. wt., o., once), conc. range: ≤36.5 ng/g*, country: USA³⁶², *in 1 pig that died after 22 h (2 other pigs sacrificed 24 and 72 h after treatment showed lower mycotoxin values) incidence: 5/5, sa. const.: market-weight pigs, wt.: ≈92 kg, contamination: artificial (subacute study, dose: ≈15 µg AFB, as well as AFB, AFG, and AFG, (all natural)/kg b. wt., o., for 14 days; for detailed information please see the article), conc. range: 0.15-0.68 ng/g*, Ø conc.: 0.344 ng/g*, country: USA362, *after 14 days

incidence: 5?/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 0.002 ng/g** (mean value), country: USA⁵⁹⁷, *control, **after 35 days incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g AFB**₁ + **AFB**₂, o., for 35 days; for detailed information please see the article), conc.: 0.484 ng/g* (mean value), country: USA⁵⁹⁷, *after 35 days incidence: 5?/5, sa. const.: cross-bred pigs, incidence: 5?/5, sa. const.: cross-bred pigs,

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g

 $AFB_1 + AFB_2 + HSCAS$ (0.5%), o., for 35 days; for detailed information please see the article), conc.: 0.500 ng/g* (mean value), country: USA597, *after 35 days incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB, + AFB, o., for 15 days; for detailed information please see the article), conc.: nd, country: USA597, *control incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + **AFB**₂, o., for 15 days; for detailed information please see the article), conc.: 0.310 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB, + AFB, + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: 0.240 ng/g* (mean value), country: USA597, *after 15 days incidence: 5/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + AFB₂, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: nd*, country: USA597, *after 29 days (thereof 15 days of AFB, - and AFB,-administration)

AFLATOXIN B₂ incidence: 2/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc. range: 0.05–0.90 ppb*, Ø conc.: 0.48 ppb*, country: France⁸⁸, *after 33 days

incidence: 20/20*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nd, country: Denmark/ USA¹o¹, *control incidence: 7/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.:

20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, -addition (overall 300 ppb AFs), o., for 141** or 150*** days; for detailed information please see the article), conc. range: tr***-45** ppb, country: Denmark/ USA101, *included are liver sa. rejected at meat inspection, after 141** or 150*** days incidence: 10/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, -addition (overall 500 ppb AFs), o., for 141** or 231*** days; for detailed information please see the article), conc. range: tr***-15** ppb, country: Denmark/USA101, *included are liver sa. rejected at meat inspection, after 141** or 231*** days

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, weight: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μg AFB₁/kg diet, 273 μg AFB₂/kg diet, 300 μg AFG₁/kg diet and 285 μg AFG₂/kg diet, o., for 21 days), conc. range: tr–0.06 μg/kg*, country: USA¹³⁸, *after ≈22 days (thereof 21 days of AF-administration)

incidence: 10/10*, sa. const.: mixed breed feeder pigs, contamination: no AFs, chronic study, (for detailed information please see the article), conc.: nd, country: USA182, *control incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: 400 ng natural AFs/g diet, o., for 10 weeks; for detailed information please see the article), conc.: 0.03 ng/g* (wet matter basis) (mean value), country: USA182, *after 10 weeks incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: 800 ng natural AFs/g diet, o., for 10 weeks; for detailed

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0.17 ng/g* (wet matter basis) (mean value), country: USA¹⁸², *after 10 weeks incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: acute study, no AFs, conc.: nd, country: USA¹⁸², *control incidence: 1/1(8)*, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: **1.2 mg total AFs** (AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range: \le 0.75 ng/g** (wet matter basis), country: USA¹⁸², *for overall

information please see the article, **48 h

post-dosage, lowest conc.: nd after 72 h)

post-dosage (also measured 12, 24 and 72 h

information please see the article), conc.:

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,), for 26 days; for detailed information please see the article), conc.: nd*, country: France314, *final wt. of the animal 109 kg incidence: 2/2, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB₁), for 26* or 19** days; for detailed information please see the article), conc. range: 0.45*-1.05** μg/kg, country: France³¹⁴, final wt. of the animal 105* and 97** kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 μg AFB₁), for 26 days; for detailed

information please see the article), conc.: 0.403 μg/kg*, country: France³¹⁴, *final wt. of the animal 104 kg

incidence: 5/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g AFB**₁ + **AFB**₂, o., for 35 days; for detailed information please see the article), conc.: 0.053 ng/g* (mean value), country: USA⁵⁹⁷, *after **35 days**

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 35 days; for detailed information please see the article), conc.: 0.015 ng/g* (mean value), country: USA⁵⁹⁷, *after 35 days

incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB₁ + AFB₂, o., for 15 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + **AFB**₂, o., for 15 days; for detailed information please see the article), conc.: 0.010 ng/g* (mean value), country: USA⁵⁹⁷, *after **15 days**

incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: 0.020 ng/g* (mean value), country: USA⁵⁹⁷, *after 15 days

incidence: 5/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: nd*, country: USA⁵⁹⁷, *after 29 days (thereof 15 days of AFB₁- and AFB₂-administration)

AFLATOXIN B_{2a} incidence: $4/4^*$, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: $662 \mu g AFB_1/kg diet$, $273 \mu g AFB_2/kg diet$, $300 \mu g AFG_1/kg diet$ and $285 \mu g AFG_2/kg diet$, o., for 21 days), conc. range: appreciable amounts*, country: USA¹³⁸, *after \approx 22 days (thereof 21 days of AF-administration)

AFLATOXIN B

incidence: 5?/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 6.893 pmol/mg DNA** *** (mean value), country: USA⁵⁹⁷, *control, **AFB *N*⁷ formamido-pyrimidine DNA adducts, ***after 35 days

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g AFB**₁ + **AFB**₂, o., for 35 days; for detailed information please see the article), conc.: 32.473 pmol/mg DNA* ** (mean value), country: USA⁵⁹⁷, *after **35 days**, ** AFB *N*⁷ formamido-pyrimidine DNA adducts

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 35 days; for detailed information please see the article), conc.: 10.197 pmol/mg DNA* ** (mean value), country: USA⁵⁹⁷, *after 35 days, ** AFB N^T formamido-pyrimidine DNA adducts

incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB₁ + AFB₂, o., for 15 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂, o., for 15 days; for

detailed information please see the article), conc.: 7.400 pmol/mg DNA* ** (mean value), country: USA⁵⁹⁷, *AFB N⁷ formamido-pyrimidine DNA adducts, **after **15 days**

incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + **AFB**₂ + **HSCAS** (0.5%), o., for 15 days; for detailed information please see the article), conc.: 4.670 pmol/mg DNA* ** (mean value), country: USA⁵⁹⁷, *AFB N⁷ formamido-pyrimidine DNA adducts, **after **15 days**

incidence: 5/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: 7.750 pmol/mg DNA* ** (mean value), country: USA⁵⁹⁷, *AFB N⁷ formamido-pyrimidine DNA adducts, **after 29 days (thereof 15 days of AFB₁- and AFB₂-administration)

Aflatoxin $G_{_{1}}$

incidence: 1/1, sa. const.: pig, contamination: artificial (dose: 1,200 ng AFB₁/g feed, o., for 3 weeks), conc.: 0.1 ng/g*, country: USA⁷⁵, *after 3 weeks?

incidence: 10/10*, sa. const.: mixed breed feeder pigs, contamination: no AFs, chronic study, (for detailed information please see the article), conc.: nd, country: USA¹⁸², *control

incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: **400 ng natural AFs/g** diet, o., for 10 weeks; for detailed information please see the article), conc.: 0.31 ng/g* (wet matter basis) (mean value), country: USA¹⁸², *after 10 weeks incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: **800 ng natural AFs/g** diet, o., for 10 weeks; for detailed information please see the article), conc.: nd*, country: USA¹⁸², *after 10 weeks

incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: no AFs, acute study, conc.: nd, country: USA¹⁸², *control incidence: 1/1(8)*, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: **1.2 mg total AFs** (AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range: ≤0.53 ng/g** (wet matter basis), country: USA¹⁸², *for overall information please see the article, **24 h post-dosage (also measured 12, 48 and 72 h post-dosage, lowest conc.: nd after 72 h)

AFLATOXIN G,

incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: no AFs, acute study, conc.: nd, country: USA¹⁸², *control incidence: 1/1(8)*, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: **1.2 mg total AFs** (AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range: ≤0.08 ng/g** (wet matter basis), country: USA¹⁸², *for overall information please see the article, **12 h post-dosage (also measured 24, 48 and 72 h post-dosage, lowest conc.: nd after 48 and 72 h)

AFLATOXIN M,

incidence: 2/2*, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 41 ng AFB,/g diet, o., for 3 weeks; for detailed information please see the article), conc.: nd**, country: USA60, *control, **sacrificed on withdrawal day 0 (animals sacrificed later showed no AFM,-contamination) incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 341 ng AFB₁/g diet, o., for 3 weeks; for detailed information please see the article), conc. range: 0.32-0.39 ng/g tissue*, Ø conc.: 0.355 ng/g tissue*, country: USA60, *sacrificed on withdrawal day 0 (animals sacrificed later showed no AFM,-contamination)

incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 866 ng AFB,/g diet, o., for 3 weeks; for detailed information please see the article), conc. range: 0.28-0.30 ng/g tissue*, Ø conc.: 0.29 ng/g tissue*, country: USA60, *sacrificed on withdrawal day 0 (animals sacrificed later showed lower or no residue values) incidence: 2/2, sa. const.: castrated male Yorkshire-Hampshire-Duroc tricross pigs, age: 3-4 weeks, contamination: artificial (dose: 1,253 ng AFB,/g diet, o., for 3 weeks; for detailed information please see the article), conc. range: 0.59-0.77 ng/g tissue*, Ø conc.: 0.68 ng/g tissue*, country: USA60, *sacrificed on withdrawal day 0 (animals sacrificed later showed lower or no residue values)

incidence: ?/?, sa. const.: pigs, contamination: artificial (dose: 1,200 ng AFB₁/g feed, o., for 3 weeks), conc.: 0.76 ng/g*, country: USA⁷⁵, *after 3 weeks

incidence: 1/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc.: tr*, country: France⁸⁸, *after 33 days

incidence: 2/4*, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: no AFB, conc.: <0.03 µg/kg**, country: USA¹³⁶, *control, **after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 100 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.05-0.23 μg/kg*, Ø conc.: 0.14 μg/kg*, country: USA136, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 200 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.11-1.50 μg/kg*, Ø conc.: 0.58 μg/kg*, country: USA136, *after 4 weeks

Piq

incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2–71.6 kg, contamination: artificial (dose: 400 μg AFB₁/kg diet, o., for 4 weeks), conc. range: 1.02–2.00 $\mu g/kg^*$, \emptyset conc.: 1.43 $\mu g/kg^*$, country: USA¹³⁶, *after 4 weeks

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μg AFB₁/kg diet, 273 μg AFB₂/kg diet, 300 μg AFG₁/kg diet and 285 μg AFG₂/kg diet, o., for 21 days), conc. range: tr–0.20 μg/kg*, country: USA¹³⁸, *after ≈22 days (thereof 21 days of AF-administration)

incidence: 10/10*, sa. const.: mixed breed

feeder pigs, contamination: no AFs, chronic study (for detailed information please see the article), conc.: nd, country: USA182, *control incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: 400 ng natural AFs/g diet, o., for 10 weeks; for detailed information please see the article), conc.: 0.58 ng/g* (wet matter basis) (mean value), country: USA182, *after 10 weeks incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: 800 ng natural AFs/g diet, o., for 10 weeks; for detailed information please see the article), conc.: 1.07 ng/g* (wet matter basis) (mean value), country: USA182, *after 10 weeks

incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: no AFs, acute study (for detailed information please see the article), conc.: nd, country: USA¹⁸², *control incidence: 1/1(8)*, sa. const.: mixed breed feeder pigs, contamination: artificial

(acute study, dose: 1.2 mg total AFs

(AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range: ≤16.80 ng/g** (wet matter basis), country: USA¹⁸², *for overall information please see the article, **24 h post-dosage (also measured 12, 48 and 72 h post-dosage, lowest conc.: nd after 72 h)

incidence: 3/3, sa. const.: castrated male pigs of mixed breed, wt.: 9–11 kg, contamination: artificial (acute study, dose: 1 mg AFB₁/kg b. wt., o., once), conc. range: ≤6.0 ng/g*, country: USA³6², *in pig that died after 22 h (2 other pigs sacrificed 24 and 72 h after treatment showed lower mycotoxin values)

incidence: 5/5, sa. const.: market-weight pigs, wt.: \approx 92 kg, contamination: artificial (subacute study, dose: \approx 15 µg AFB₁ as well as AFB₂, AFG₁ and AFG₂ (all natural)/kg b. wt., o., for 14 days; for detailed information please see the article), conc. range: 0.51–1.70 ng/g*, \emptyset conc.: 0.886 ng/g*, country: USA³⁶², *after 14 days

incidence: 5?/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 0.071 ng/g** (mean value), country: USA⁵⁹⁷, *control, **after 35 days incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g AFB**₁ + **AFB**₂, o., for 35 days; for detailed information please see the article), conc.: 1.479 ng/g* (mean value), country: USA⁵⁹⁷, *after **35 days**

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g AFB**₁ + **AFB**₂ + **HSCAS** (0.5%), o., for 35 days; for detailed information please see the article), conc.: 0.547 ng/g* (mean value), country: USA⁵⁹⁷, *after **35 days**

incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB₁ + AFB₂, o., for 15 days; for detailed

information please see the article), conc.: nd, country: USA597, *control incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB, + AFB, o., for 15 days; for detailed information please see the article), conc.: 2.850 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: 0.780 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + AFB₂, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: 0.050 ng/g* (mean value), country: USA597, *after 29 days (thereof 15 days of AFB, - and AFB,-administration)

AFLATOXIN M

incidence: 1/20*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: pr**, country: Denmark/ USA101, *control, **estimated incidence: 3/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 300 ppb AFs), o., for 120** or 141*** days; for detailed information please see the article), conc. range: tr***-3** ppb*, country: Denmark/USA101, *included are liver sa. rejected at meat inspection, after 120** or 141*** days incidence: 3/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 500 ppb

AFs), o., for 135** or 186*** days; for detailed information please see the article), conc. range: tr***-3** ppb, country: Denmark/USA¹⁰¹, *included are liver sa. rejected at meat inspection, after 135** or 186*** days

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 2.82 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: 0.250 μg/kg*, country: France³¹⁴, *final wt. of the animal 104 kg

DEOXYNIVALENOL

incidence: $4/4^*$, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: USA⁶⁴, *control

incidence: ?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination:

artificial (dose: 0.9 ppm DON (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 5 ppb*, country: USA64, *after 3 weeks post-treatment incidence: ?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: artificial (dose: 2.0 ppm DON (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 10 ppb* (mean value), country: USA64, *after 3 weeks post-treatment incidence: ?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: artificial (dose: 2.8 ppm DON (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 12 ppb* (mean value), country: USA64, *after 3 weeks post-treatment

incidence: 6/6*, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada406, *control incidence: 50?/50, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: artificial (dose: 6.0 mg natural DON/kg dry weight, o., for 3 weeks (feeding trial 1); for detailed information please see the article), conc. range: $\leq 14.6 \text{ ng/g}^*$, country: Canada406, *after 3 weeks incidence: 6/6*, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada406, *control incidence: 6?/6, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: artificial (dose: 6.0 mg crystalline DON/kg dry weight, o., for 4 weeks (feeding trial 2); for detailed information please see the article), conc. range: ≤8.7 ng/g*, country: Canada406, *after 4 weeks incidence: 6/6*, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada406, *control

incidence: 6?/6, sa. const.: barrows (Yorkshire), wt.: ≈25 kg, contamination: artificial (dose: 7.6 mg natural DON/kg dry weight, o., for 7 weeks (feeding trial 3); for detailed information please see the article), conc. range: ≤7.8 ng/g*, country: Canada⁴⁰⁶, *after 7 weeks

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴o⊓, *control
incidence: ₹/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., i.v., once), conc. range:
≤1,114.3 ng/g* (mean value), country:
Canada⁴o⊓, *after 0.33 h (also measured
after 1, 3, 8 and 24 h, lowest conc.:
8.2 ng/g after 24 h)

incidence: 5?/5, sa. const.: castrated Large White × German Landrace, db Classic crossbred pigs, wt.: ≈24.6 kg, contamination: artificial (dose: 0.05, 0.57, or 1.23 mg DON/kg mash or 0.07, 0.55 or 1.13* mg DON/kg pellets*, o., for 11 weeks; for detailed information please see the article), conc. range: ≤4.8 ng/g* ** *** (mean value), country: Germany⁴⁸³, **after 78/79 days (thereof 11 weeks of DON-administration), ***values of the other DON-treatments were lower

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: 103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤8.2 ng/g* ** (mean value), country: Germany⁵³⁷, *9.57 mg DON and 0.358 mg ZEA/kg diet fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

DEEPOXYDEOXYNIVALENOL

incidence: 5/5, sa. const.: castrated Large White × German Landrace, db Classic crossbred pigs, wt.: ≈24.6 kg, contamination: artificial (dose: 0.05, 0.57, or 1.23 mg DON/ kg mash* or 0.07, 0.55 or 1.13 mg DON/kg pellets*, o., for 11 weeks; for detailed information please see the article), conc.: nd*, country: Germany⁴⁸³, *after 78/79 days (thereof 11 weeks of DON-administration)

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, weight: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤4.8 ng/g* ** (mean value), country: Germany⁵³⁷, *6.1 mg DON and 0.235 mg ZEA/kg diet fed (both fed in second highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

Fumonisin B, incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: no FB, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany87, *control incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc. range: 38.4-158.4 ng/g*, Ø conc.: 99.36 ng/g*, country: Hungary/Germany87, *after 22 days toxin feeding period

incidence: 6/6*, sa. const.: Yorkshire barrows, age: 6-8 weeks, wt.: 9-13 kg, contamination: no FB, (for detailed information please see the article), conc.: nr, country: Canada108, *control incidence: ?/2, sa. const.: Yorkshire barrows, age: 6-8 weeks, wt.: 9-13 kg, contamination: artificial (dose: 3.0 mg FB, (labeled)/kg feed, o., for 12 days and 2.0 mg FB, (labeled)/kg feed, o., for another 12 days; for detailed information please see the article), conc.: ≈160 ng/g tissue* ** (mean value), country: Canada¹⁰⁸, *after 24 days (also at other day intervals up to 33 days measured), **FB₁ and/or metabolites

incidence: 6/6*, sa. const.: castrated pigs of identical genotype, wt.: ≈12–14 kg, contamination: no FB₁ (for detailed information please see the article), conc.: nd, country: Germany/Hungary¹09, *control

incidence: 13/13, sa. const.: castrated pigs of identical genotype, wt.: \approx 12–14 kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5–11 days; for detailed information please see the article), conc. range: 74–710 µg/kg*, Ø conc.: 214.57 µg/kg*, country: Germany/Hungary¹⁰⁹, *on 6th day of the experiment

FUMONISIN B,

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control incidence: 5/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc. range: 0.8–7.2 ng/g*, Ø conc.: 2.88 ng/g*, country: Hungary/Germany⁸⁷, *after 22 days toxin feeding period

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.47–2.66 ng/g*, Ø conc.: 2.065 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY HT-2 TOXIN

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.t: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin/kg b. wt., i.vs., once), conc. range: 0.14–0.26 ng/g*, Ø conc.: 0.20 ng/g*, country: USA⁴²⁵, *after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 2.42–4.63 ng/g*, Ø conc.: 3.525 ng/g*, country: USA⁴²⁵, *after 4 h

OCHRATOXIN A incidence: 5/5*, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Denmark/USA102, *control incidence: ?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed; for detailed information please see the article), conc.: 17.80 μg/kg* (mean value), country: Denmark/USA102, *1 day after termination of OTA-exposure incidence: ?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed; for detailed information please see the article), conc.: 5.14 µg/kg* (mean value), country: Denmark/USA102, *8 days after termination of OTA-exposure incidence: ?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed; for detailed information please see the article), conc.: 0.58 µg/kg* (mean value), country: Denmark/USA¹⁰², *15 days after termination of OTA-exposure incidence: ?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed; for detailed information

please see the article), conc.: nd* (mean

value), country: Denmark/USA 102 , *29 days after termination of OTA-exposure incidence: ?/?, sa. const.: weaners (specific pathogen free), wt.: 14-18 kg, contamination: artificial (dose: ? μ g OTA addition; for detailed information please see the article), conc. range: \leq 25 μ g/kg*, country: Denmark 204 , *calculated value based on the amount of OTA in blood after 24 h on toxin free diet

incidence: $1/1^*$, sa. const.: pregnant gilts, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control incidence: 2/2, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg OTA + 0.13 mg OTB/kg** b. wt., o., for 8 days during early pregnancy), conc. range: $0.30-0.34 \mu g/g^*$, \emptyset conc.: $0.32 \mu g/g^*$, country: UK²⁶⁶, *measured on day 30 of pregnancy

incidence: 13/13*, sa. const.: castrated

pigs, wt.: 20 kg, contamination: no OTA and/or CIT (for detailed information please see the article), conc.: nd, country: Denmark/USA330, *control incidence: ?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 µg crystalline OTA/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 6 µg/kg* (mean value), country: Denmark/USA330, *after 6 weeks incidence: ?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 650 µg crystalline CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: nd*, country: Denmark/USA330, *after 6 weeks incidence: ?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 μg crystalline OTA + 650 μg crystalline CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 7 µg/kg* (mean value), country: Denmark/USA330, *after 6 weeks incidence: ?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 μg natural OTA + 650 μg natural CIT/kg feed, o., for 6 weeks; for detailed

information please see the article), conc.: 30 μg/kg* (mean value), country: Denmark/USA³³⁰, *after 6 weeks

incidence: 8?/8*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 18.6 µg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 1); for detailed information please see the article), conc.: 11 μg/kg* (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old) incidence: 6?/6*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 8.0 µg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 2); for detailed information please see the article), conc.: 5 μg/kg* (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old) incidence: 8?/8*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 19.7 µg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 3); for detailed information please see the article), conc.: 9 μg/kg* (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old)

incidence: 4/4*, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany365, *control incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 12.35 ng/g* (mean value), country: Germany365, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the

article), conc.: 2.21 ng/g* (mean value), country: Germany³65, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning total OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 3.19 ng/g* (mean value), country: Germany³65, *after 28 days

incidence: 8?/8*, sa. const.: pigs, contamination: no OTA (for detailed information please see the article), conc.: <0.66 µg/kg (mean value), country: Germany366, *control incidence: 8?/8, sa. const.: pigs, contamination: artificial (dose: 22.11 mg OTA (in total), o., for 90 days; for detailed information please see the article), conc.: 7.9 µg/kg (mean value), country: Germany366, *after 90 days incidence: 8?/8, sa. const.: pigs, contamination: artificial (dose: 88.44 mg OTA (in total), o., for 90 days; for detailed information please see the article), conc.: 36.7 μg/kg* (mean value), country: Germany366, *after 90 days

incidence: 2/2*, sa. const.: pigs, contamination: no OTA and/or DON (for detailed information please see the article), conc.: nd, country: Germany³⁷⁸, *control incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm crystalline OTA + 1.0 ppm crystalline DON, o., twice daily for 90 days; for detailed information please see the article), conc. range: 0.98-1.74 ng/g*, Ø conc.: 1.33 ng/g*, country: Germany³⁷⁸, *after 90 days incidence: 3/3, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm **crystalline OTA**, o., twice daily for 90 days; for detailed information please see the article), conc. range: 0.88-1.67 ng/g*, Ø conc.: 1.26 ng/g*, country: Germany378, *after 90 days incidence: 3/3, sa. const.: pigs, contamination: artificial (dose: 1.0 ppm

crystalline DON, o., twice daily for 90 days; for detailed information please see the article), conc.: nd*, country: Germany³⁷⁸, *after 90 days

incidence: 2?/2*, sa. const.: pigs,

contamination: no OTA and/or ZEA (for detailed information please see the article), conc.: nr, country: Germany380, *control incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm OTA + 0.25 ppm ZEA, o., twice daily for 90 days; for detailed information please see the article), conc. range: $\leq 4.18 \text{ ng/g}^*$, country: Germany380, *after 91 days (thereof 90 days of OTA- and ZEA-administration) incidence: 3/3, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm OTA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤4.21 ng/g*, country: Germany380, *after 91 days (thereof 90 days of OTA-administration)

incidence: 3/3*, sa. const.: female pigs of Danish Landrace, age: 8–10 weeks, wt.: ≈20 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Denmark/ USA/Sweden³83, *control incidence: 4?/4, sa. const.: female pigs of Danish Landrace, age: 8–10 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 mg crystalline OTA/kg feed, o., for 3 months; for detailed information please see the article), conc.: ≈11.5 μg/kg (mean value), country: Denmark/USA/ Sweden³83, *after ≈3 months

incidence: 9/9*, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: no OTA, conc.: nd, country: Germany⁴⁰⁹, *control incidence: 9/9, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: artificial (dose: **0.15 mg natural OTA/**kg feed, o., daily for 28 days), conc.: nd*, country: Germany⁴⁰⁹, *after 28 days

incidence: 8/8*, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: no OTA, conc.: nd, country: Germany⁴⁰⁹, *control incidence: 6/6, sa. const.: Deutsches Landschwein, Deutsches Edelschwein × Piétrain, Belgische Landrasse, wt.: 25 kg, contamination: artificial (dose: **0.58 mg natural OTA/kg** feed, o., daily for 28 days), conc. range: ≤6.4 µg/kg*, country:

T-2 Toxin

Germany⁴⁰⁹, *after 28 days

incidence: 1/1, sa. const.: female weanling crossbred Yorkshire × Duroc × Hampshire swine, wt.: 7.5 kg, contamination: artificial (dose: **0.1 mg T-2 toxin** (labeled)/kg b. wt., intubated, once), conc.: 13.8 ppb* ** ****, country: USA³¹⁸, *calculated residue level, **T-2 toxin and/or metabolites, ***after 18 h

incidence: 1/1, sa. const.: female weanling crossbred Yorkshire × Duroc × Hampshire swine, wt.: 9.5 kg, contamination: artificial (dose: **0.4 mg T-2 toxin** (labeled)/kg b. wt., intubated, once), conc.: 37.7 ppb* ** ***, country: USA³¹⁸, *calculated residue level, **T-2 toxin and/or metabolites, ***after 18 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.27–0.71 ng/g*, Ø conc.: 0.49 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and

unlabeled)/kg b. wt., i.vs., once), conc. range: 39–107 ng/g* **, Ø conc.: 73 ng/g* **, country: USA⁴²⁵, *after 4 h, **total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.67–0.78 ng/g*, Ø conc.: 0.725 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 TETRAGE

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.71–1.73 ng/g*, Ø conc.: 1.22 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.66–1.72 ng/g*, Ø conc.: 1.69 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.16–0.35 ng/g*, Ø conc.: 0.255 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.07–0.23 ng/g*, Ø conc.: 0.15 ng/g*, country: USA⁴²⁵, *after 4 h

ZEARALENONE

incidence: 3?/3, sa. const.: Yorkshire gilts, wt.: 8-11 kg, contamination: artificial (dose: 40 µg ZEA/g feed additionally to 0% alfalfa in the diet, for 4 weeks; for detailed information please see the article), conc.: 0.64 µg/5 g liver* (mean value), country: Canada84, *after 28 days incidence: 3?/3, sa. const.: Yorkshire gilts, wt.: 8-11 kg, contamination: artificial (dose: 40 µg ZEA/g feed additionally to 15% alfalfa in the diet, for 4 weeks; for detailed information please see the article), conc.: 0.39 µg/5 g liver* (mean value), country: Canada84, *after 28 days incidence: 3?/3, sa. const.: Yorkshire gilts, wt.: 8-11 kg, contamination: artificial (dose: 40 µg ZEA/g feed additionally to 25% alfalfa in the diet, for 4 weeks; for detailed information please see the article), conc.: 0.39 μg/5 g liver* (mean value), country: Canada⁸⁴, *after 28 days

incidence: 7/7*, sa. const.: hybrids of *Deutsches Edelschwein* and *Pietrain* (female pigs), age: 3 months, Ø wt.: 58.6 kg, contamination: (dose: 60 μg ZEA/ animal besides other *Fusarium* mycotoxins, o., daily for 18 days; for detailed information please see the article), conc.: nr, country: Austria⁶⁰⁰, *control

incidence: 7/7, sa. const.: hybrids of *Deutsches Edelschwein* and *Pietrain* (female pigs), age: 3 months, Ø wt.: 58.6 kg, contamination: artificial (dose: **1.1 mg ZEA**/animal besides other *Fusarium* mycotoxins, o., daily for 18 days; for detailed information please see the article), conc. range: tr–3.1 μg/kg*, country: Austria⁶⁰⁰, *after 18 days

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days, conc.:

70 μg/kg*, country: Hungary⁶³², *after 14 days)

α-Zearalenol

incidence: 3?/3, sa. const.: Yorkshire gilts, wt.: 8–11 kg, contamination: artificial (dose: 40 μg ZEA/g feed additionally to 0% of alfalfa in the diet, for 4 weeks; for detailed information please see the article), conc.: 0.47 μg/5 g liver* (mean value), country: Canada⁸⁴, *after 28 days incidence: 3?/3, sa. const.: Yorkshire gilts, wt.: 8–11 kg, contamination: artificial (dose: 40 μg ZEA/g feed additionally to 15% of alfalfa in the diet, for 4 weeks; for detailed information please see the article), conc.: 0.72 μg/5 g liver* (mean value), country: Canada⁸⁴, *after 28 days

incidence: 3?/3, sa. const.: Yorkshire gilts, wt.: 8–11 kg, contamination: artificial (dose: 40 μ g ZEA/g feed additionally to 25% of alfalfa in the diet, for 4 weeks; for detailed information please see the article), conc.: 1.55 μ g/5 g liver* (mean value), country: Canada⁸⁴, *after 28 days

incidence: 2?/2*, sa. const.: pigs, contamination: no OTA and/or ZEA (for detailed information please see the article), conc.: nr, country: Germany³⁸⁰, *control

incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm OTA + 0.25 ppm ZEA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤4.91 ng/g*, country: Germany³80, *after 91 days (thereof 90 days of OTA- and ZEA-administration)

incidence: 7?/7*, sa. const.: hybrids of *Deutsches Edelschwein* and *Pietrain* (female pigs), age: 3 months, Ø wt.: 58.6 kg, contamination: (dose: 60 µg ZEA/ animal besides other *Fusarium* mycotoxins, o., daily for 18 days; for detailed information please see the article), conc.: nr, country: Austria⁶⁰⁰, *control

incidence: 7/7, sa. const.: hybrids of *Deutsches Edelschwein* and *Pietrain* (female pigs), age: 3 months, Ø wt.: 58.6 kg, contamination: artificial (dose: 1.1 mg ZEA/animal besides other *Fusarium* mycotoxins, o., daily for 18 days; for detailed information please see the article), conc. range: 3.6–12.0 μg/kg*, country: Austria⁶⁰⁰, *after 18 days

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days, conc.: 160 µg/kg*, country: Hungary⁶³², *after 14 days)

B-ZEARALENOL

incidence: 7?/7*, sa. const.: hybrids of *Deutsches Edelschwein* and *Pietrain* (female pigs), age: 3 months, Ø wt.: 58.6 kg, contamination: (dose: 60 µg ZEA/animal besides other *Fusarium* mycotoxins, o., daily for 18 days; for detailed information please see the article), conc.: nr, country: Austria⁶⁰⁰, *control incidence: 7/7, sa. const.: hybrids of

Deutsches Edelschwein and Pietrain (female pigs), age: 3 months, Ø wt.: 58.6 kg, contamination: artificial (dose: 1.1 mg ZEA/animal besides other Fusarium mycotoxins, o., daily for 18 days; for detailed information please see the article), conc. range: 1.9–4.8 μg/kg*, country: Austria⁶⁰⁰, *after 18 days

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days, conc.: 28 µg/kg*, country: Hungary⁶³², *after 14 days)

Pig lung may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglet, wt.: 15 kg, contamination: artificial (dose: 3.1 µg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 1 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after **24 h** incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglets, wt.: 15 kg, contamination: artificial (dose: 3.1 µg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 0.7 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after **48 h**

DEOXYNIVALENOL

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰7, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., i.v., once), conc. range:
≤265.9 ng/g* (mean value), country:
Canada⁴⁰7, *after 0.33 h (also measured
after 1, 3, 8 and 24 h, lowest conc.:
1.0 ng/g after 24 h)

FUMONISIN B,

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/ animal, o., for 22 days; for detailed information please see the article), conc. range: 1.6–5.6 ng/g*, Ø conc.: 2.72 ng/g*, country: Hungary/Germany⁸⁷, *after 22 days toxin feeding period

incidence: 6/6*, sa. const.: castrated pigs of identical genotype, wt.: ≈12–14 kg, contamination: no FB, (for detailed

information please see the article), conc.: nd, country: Germany/Hungary¹⁰⁹, *control

incidence: 13/13, sa. const.: castrated pigs of identical genotype, wt.: ≈12-14 kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5-11 days; for detailed information please see the article), conc. range: 6-1,150 µg/kg*, Ø conc.: 158.14 µg/kg*, country: Germany/ Hungary¹09, *on 6th day of the experiment

FUMONISIN B,

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control incidence: 4/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/ animal, o., for 22 days; for detailed information please see the article), conc. range: 0.8–2.4 ng/g*, Ø conc.: 1.6 ng/g*, country: Hungary/Germany⁸⁷, *after 22 days toxin feeding period

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.85–1.69 ng/g*, Ø conc.: 1.27 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY HT-2 TOXIN

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.13 ng/g*, country: USA⁴²⁵, *after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.24–2.15 ng/g*, Ø conc.: 1.695 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.13–0.85 ng/g*, Ø conc.: 0.49 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 21–24 ng/g* **, Ø conc.: 22.5 ng/g* **, country: USA⁴²⁵, *after 4 h, **total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.27–0.87 ng/g*, Ø conc.: 0.57 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 Tetraol

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.06 ng/*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.03–1.28 ng/g*, Ø conc.: 1.155 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.11–0.17 ng/g*, Ø conc.: 0.14 ng/g*, country: USA⁴²⁵, *after 4 h

Pig Lymphatic Gland see Pig lymph

Pig lymph may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰⁷, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., i.v., once), conc. range:
≤292.3 ng/g* (mean value), country:
Canada⁴⁰⁷, *after 1 h (also measured after
0.33, 3, 8 and 24 h, lowest conc.: 0.8 ng/g
after 24 h)

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 3.76–5.21 ng/g* **, Ø conc.: 4.485 ng/g* **, country: USA 425, *in mesenteric lymph nodes, **after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 3.03–4.02 ng/g* **, Ø conc.: 3.525 ng/g* **, country: USA⁴²⁵, *in mesenteric lymph nodes, **after 4 h

T-2 Toxin

incidence: 2/2*, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: no T-2 toxin, conc.: nr, country: USA⁴⁰³, *control incidence: 1/1, sa. const.: female swine of mixed breeding, wt.: 26–66 kg, contamination: artificial (dose: **1.2 mg**

T-2 toxin, i.a., once), conc.: ≈116 ppb**, country: USA⁴⁰³, *after 3 h, **in mesenteric lymph nodes

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.37-1.81 ng/g* **, Ø conc.: 1.59 ng/g* **, country: USA425, *in mesenteric lymph nodes, **after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 33-46 ng/g* ** ***, Ø conc.: 39.5 ng/g* ** ***, country: USA425, *in mesenteric lymph nodes, **after 4 h, ***total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.63–1.69 ng/g***, Ø conc.: 1.16 ng/g* **, country: USA⁴²⁵, *in mesenteric lymph nodes, **after 4 h

T-2 TETRAGE

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.09 ng/g* **, country: USA 425, *in mesenteric lymph nodes, **after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.05–1.51 ng/g***, Ø conc.: 1.28 ng/g* **, country: USA⁴²⁵, *in mesenteric lymph nodes, **after 4 h

T-2 Triol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.22–0.27 ng/g* **, Ø conc.: 0.245 ng/g* **, country: USA 425, *in mesenteric lymph nodes, **after 4 h

α-Zearalenol

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days, conc.: 10 μg/kg*, country: Hungary⁶³², *after 14 days

Pig Mesenteric Lymph Nodes see Pig lymph

Pig muscle may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 2/2, sa. const.: castrated male pigs of mixed breed, wt.: 9–11 kg, contamination: artificial (acute study, dose: 1 mg AFB₁/kg b. wt., o., once), conc. range: ≤0.06 ng/g*, country: USA³6², *sacrificed after 24 h (1 other pig sacrificed 72 h after treatment showed a lower mycotoxin value)

AFLATOXIN B,

incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglets, wt.: 15 kg, contamination: artificial (dose: 3.1 μg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: <0.2 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after 24 h incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglets, wt.: 15 kg, contamination: artificial (dose: 3.1 μg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: <0.2 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after 48 h

incidence: 1/2, sa. const.: adult swines, contamination: artificial (dose:

1.08–1.09 mg AFB₁ (besides other AF), o., daily for 33 days; for detailed information please see the article), conc.: 0.85 ppb*, country: France⁸⁸, *after 33 days

incidence: 20/20*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB, + AFB, (for detailed information please see the article), conc.: nd, country: Denmark/ USA101, *control incidence: 2/17*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 300 ppb AFs), o., for 120 or 180 days**; for detailed information please see the article), conc. range: tr**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, **after 120 or 180 days incidence: 10/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 500 ppb AFs), o., for 135-231 days**; for detailed information please see the article), conc. range: tr**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, **after 135-231 days

incidence: 4/4*, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: no AFB, conc.: na, country: USA136, *control incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 100 µg AFB₁/kg diet, o., for 4 weeks), conc. range: 0.13-0.23 μg/kg*, Ø conc.: 0.19 μg/kg*, country: USA136, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 200 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.19-0.69 μg/kg*, Ø conc.: 0.46 μg/kg*, country: USA136, *after 4 weeks

incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2–71.6 kg, contamination: artificial (dose: 400 μg AFB₁/kg diet, o., for 4 weeks), conc. range: 0.36–2.22 μg/kg*, Ø conc.: 1.04 μg/kg*, country: USA¹³⁶, *after 4 weeks incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control

incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: $662 \mu g AFB_1/kg diet, 273 \mu g AFB_2/kg diet, 300 \mu g AFG_1/kg diet and 285 \mu g AFG_2/kg diet, o., for 21 days), conc. range: tr–0.10 <math>\mu g/kg^*$, country: USA¹³⁸, *after \approx 22 days (thereof 21 days of AF-administration)

incidence: 10/10*, sa. const.: mixed breed feeder pigs, contamination: chronic study, no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁸², *control incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial

feeder pigs, contamination: artificial (chronic study, dose: **400 ng natural AFs/g** diet, o., for 10 weeks; for detailed information please see the article), conc.: nd*, country: USA¹⁸², *after 10 weeks incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: **800 ng natural AFs/g** diet, o., for 10 weeks; for detailed information please see the article), conc.: 0.19 ng/g* (wet matter basis) (mean value), country: USA¹⁸², *after 10 weeks incidence: 8/8*, sa. const.: mixed breed

incidence: $8/8^*$, sa. const.: mixed breed feeder pigs, contamination: acute study, no AFs, conc.: nd, country: USA¹⁸², *control incidence: $1/1(8)^*$, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: 1.2 mg total AFs (AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range: ≤ 1.57 ng/g** (wet matter basis), country: USA¹⁸², *for overall information please see the article, **48 h post-dosage (also measured

12, 24 and 72 h post-dosage, lowest conc.: nd after 12 and 72 h)

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 0.1 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pig, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

incidence: 2/2, sa. const.: castrated male pigs of mixed breed, wt.: 9–11 kg, contamination: artificial (acute study, dose: 1 mg AFB₁/kg b. wt., o., once), conc. range: \leq 2.9 ng/g*, country: USA³⁶², *sacrificed after 24 h (1 other pig sacrificed 72 h after treatment showed a lower mycotoxin value) incidence: 2/5, sa. const.: market-weight pigs, wt.: \approx 92 kg, contamination: artificial (subacute study, dose: \approx 15 µg AFB₁ as well as AFB₂, AFG₁ and AFG₂ (all natural)/kg b. wt., o., for 14 days; for

detailed information please see the article), conc. range: 0.04 ng/g* **, Ø conc.: 0.04 ng/g* **, country: USA³⁶², *in loin muscle, **after 14 days

incidence: 5?/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 0.010 ng/g** (mean value), country: USA⁵⁹⁷, *control, **after 35 days incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g AFB**₁ + **AFB**₂, o., for 35 days; for detailed information please see the article), conc.: 0.210 ng/g* (mean value), country: USA⁵⁹⁷, *after **35 days** incidence: 5?/5, sa. const.: cross-bred pigs, incidence: 5?/5, sa. const.: cross-bred pigs,

contamination: artificial (dose: 524 ng/g

 $AFB_1 + AFB_2 + HSCAS$ (0.5%), o., for

35 days; for detailed information please see the article), conc.: 0.008 ng/g* (mean value), country: USA597, *after 35 days incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB₁ + AFB₂, o., for 15 days; for detailed information please see the article), conc.: nd, country: USA597, *control incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + **AFB**₂, o., for 15 days; for detailed information please see the article), conc.: 0.130 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: 0.070 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + AFB₂, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: 0.010 ng/g* (mean value), country: USA⁵⁹⁷, *after **29 days** (thereof 15 days of AFB,- and AFB,administration)

AFLATOXIN B₂ incidence: 1/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc.: 0.46 ppb*, country: France⁸⁸, *after 33 days

incidence: 20/20*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: no AFB₁ + AFB₂ (for detailed information please see the article), conc.: nd, country: Denmark/ USA¹¹¹, *control

incidence: 18/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 300 ppb AFs), o., for 120-231 days**; for detailed information please see the article), conc.: nd**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, **after 120-231 days incidence: 2/18*, sa. const.: male and female Danish Landrace pigs, age: ≈8 weeks, wt.: 20 kg up to slaughter at 90 kg, contamination: artificial (dose: AFB, + AFB, addition (overall 500 ppb AFs), o., for 150 or 159 days**; for detailed information please see the article), conc. range: tr**, country: Denmark/USA101, *livers of some of these pigs were rejected at meat inspection, **after 150 or 159 days

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³8, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μ g AFB₁/kg diet, 273 μ g AFB₂/kg diet, 300 μ g AFG₁/kg diet and 285 μ g AFG₂/kg diet, o., for 21 days), conc. range: tr–0.05 μ g/kg*, country: USA¹³8, *after ≈22 days (thereof 21 days of AF-administration)

incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: acute study, no AFs, conc.: nd, country: USA¹⁸², *control

incincidence: $1/1(8)^*$, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: **1.2 mg total** AFs (AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range: ≤ 0.45 ng/g** (wet matter basis), country: USA¹⁸², *for overall information please see the article, **48 h post-dosage (also measured 12, 24 and 72 h post-dosage, lowest conc.: nd after 12 and 72 h)

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 0.05 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

incidence: 5?/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 0.001 ng/g** (mean value), country: USA⁵⁹⁷, *control, **after 35 days incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 0.027 ng/g* (mean value), country: USA⁵⁹⁷, *after 35 days

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: 524 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 35 days; for detailed information please see the article), conc.: 0.003 ng/g* (mean value), country: USA⁵⁹⁷, *after 35 days

incidence: 5/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB, + AFB, o., for 15 days; for detailed information please see the article), conc.: nd, country: USA597, *control incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + **AFB**₂, o., for 15 days; for detailed information please see the article), conc.: 0.010 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: 590 ng/g AFB₁ + AFB₂ + HSCAS (0.5%), o., for 15 days; for detailed information please see the article), conc.: 0.010 ng/g* (mean value), country: USA597, *after 15 days incidence: 5/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + AFB₂, o., for 15 days followed by 2 weeks control diet; for detailed information please see the article), conc.: nd*, country: USA597, *after 29 days (thereof 15 days of AFB, - and AFB₂-administration)

Aflatoxin B_{2a} incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows,

wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μ g AFB₁/kg diet, 273 μ g AFB₂/kg diet, 300 μ g AFG₁/kg diet and 285 μ g AFG₂/kg diet, o., for 21 days), conc. range: appreciable amounts*, country: USA¹³⁸, *after \approx 22 days (thereof 21 days of AF-administration)

AFLATOXIN M₁

incidence: 1/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc.: 0.09 ppb*, country: France⁸⁸, *after 33 days

incidence: 4/4*, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: no AFB, conc.: na, country: USA136, *control incidence: 3/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 100 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.03-0.04 µg/kg*, Ø conc.: 0.036 µg/kg*, country: USA136, *after 4 weeks incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg, contamination: artificial (dose: 200 µg AFB,/kg diet, o., for 4 weeks), conc. range: 0.04-0.09 μg/kg*, Ø conc.: 0.07 μg/kg*, country: USA¹³⁶, *after 4 weeks incidence: 3/4, sa. const.: male and female feeder pigs, wt.: 54.2-71.6 kg,

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control

contamination: artificial (dose: 400 µg

0.17-0.35 μg/kg*, Ø conc.: 0.28 μg/kg*,

country: USA136, *after 4 weeks

AFB,/kg diet, o., for 4 weeks), conc. range:

incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: $662 \mu g AFB_1/kg diet$, $273 \mu g AFB_2/kg diet$, $300 \mu g AFG_1/kg diet$ and $285 \mu g AFG_2/kg diet$, o., for 21 days), conc. range: tr–0.24 $\mu g/kg^*$, country: USA¹³⁸, *after \approx 22 days (thereof 21 days of AF-administration)

incidence: 10/10*, sa. const.: mixed breed feeder pigs, contamination: chronic study, no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁸², *control

incidence: 10/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: **400 ng natural** AFs/g diet, o., for 10 weeks; for detailed information please see the article), conc.: nd*, country: USA¹⁸², *after 10 weeks incidence: 10?/10, sa. const.: mixed breed feeder pigs, contamination: artificial (chronic study, dose: **800 ng natural** AFs/g diet, o., for 10 weeks; for detailed information please see the article), conc.: 0.45 ng/g* (wet matter basis) (mean value), country: USA¹⁸², *after 10 weeks

incidence: 8/8*, sa. const.: mixed breed feeder pigs, contamination: acute study, no AFs, conc.: nd, country: USA¹⁸², *control

incidence: 1/1(8)*, sa. const.: mixed breed feeder pigs, contamination: artificial (acute study, dose: **1.2 mg total AFs** (AFB₁+AFB₂+AFG₁+AFG₂)/kg b. wt., o., once, conc. range:

≤2.18 ng/g** (wet matter basis), country: USA¹⁸², *for overall information please see the article, **24 h post-dosage (also measured 12, 48 and 72 h post-dosage, lowest conc.: nd after 12 and 72 h)

incidence: 2/2, sa. const.: castrated male pigs of mixed breed, wt.: 9–11 kg, contamination: artificial (acute study, dose: 1 mg AFB₁/kg b. wt., o., once), conc. range: ≤ 1.3 ng/g*, country: USA³⁶², *sacrificed after 24 h (1 other pig

sacrificed 72 h after treatment showed a lower mycotoxin value)

incidence: 5/5*, sa. const.: cross-bred pigs, contamination: (dose: 9 ng/g AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: nd, country: USA⁵⁹⁷, *control incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g** AFB₁ + AFB₂, o., for 35 days; for detailed information please see the article), conc.: 0.206 ng/g* (mean value), country: USA⁵⁹⁷, *after **35 days**

incidence: 5?/5, sa. const.: cross-bred pigs, contamination: artificial (dose: **524 ng/g AFB**₁ + **AFB**₂ + **HSCAS** (0.5%), o., for 35 days; for detailed information please see the article), conc.: 0.075 ng/g* (mean value), country: USA⁵⁹⁷, *after 35 days

incidence: 5?/5*, sa. const.: male miniature pigs, contamination: (dose: 1 ng/g AFB₁ + AFB₂, o., for 15 days; for detailed information please see the article), conc.: 0.010 ng/g** (mean value), country: USA597, *control, **after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + AFB₂, o., for 15 days; for detailed information please see the article), conc.: 0.380 ng/g* (mean value), country: USA597, *after 15 days incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: $590 \text{ ng/g AFB}_{1} + \text{AFB}_{2} + \text{HSCAS } (0.5\%),$ o., for 15 days; for detailed information please see the article), conc.: 0.110 ng/g* (mean value), country: USA597, *after 15 days

incidence: 5?/5, sa. const.: male miniature pigs, contamination: artificial (dose: **590 ng/g AFB**₁ + **AFB**₂, o., for 15 days followed by **2 weeks control diet**; for detailed information please see the article), conc.: 0.010 ng/g* (mean value), country: USA⁵⁹⁷, *after **29 days** (thereof 15 days of AFB₁- and AFB₂- administration)

AFLATOXIN M

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 0.05 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB₁) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

CYCLOPIAZONIC ACID

incidence: 3?/3, sa. const.: Piétran crossbred pigs, wt.: ≈97 kg, contamination: artificial (dose: 10 mg CPA/kg diet, o., for 6 days; for detailed information please see the article), conc.: 393 ng/g* **(mean value), country: USA⁵⁷², *in skeletal muscle (*longissimus*), **at day 6 (also measured at day 3, 4 and 5 but conc.: nd) incidence: 3?/3, sa. const.: Piétran crossbred pigs, wt.: ≈97 kg, contamination: artificial (dose: 10 mg CPA/kg diet, o., for 6 days; for detailed information please see the article), conc.:

545 ng/g* ** (mean value), country: USA⁵⁷², *in skeletal muscle (*semitendinosus*), **at day 6 (also measured at day 3, 4 and 5 but conc.: nd)

DEOXYNIVALENOL

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰⁷, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., i.v., once), conc. range:
≤33.1 ng/g* (mean value), country:
Canada⁴⁰⁷, *after 1 h (also measured after
0.33, 3, 8, and 24 h, lowest conc.:
nd after 24 h)

incidence: 5?/5, sa. const.: castrated Large White × German Landrace, db Classic crossbred pigs, wt.: ≈24.6 kg, contamination: artificial (dose: 0.05, 0.57, or 1.23* mg DON/kg mash* or 0.07, 0.55, or 1.13 mg DON/kg pellets, o., for 11 weeks; for detailed information please see the article), conc. range: ≤5.2 ng/g* *** *** (mean value), country: Germany⁴⁸³, **after 78/79 days (thereof 11 weeks of DON-administration), ***values of the other DON-treatments were lower

Deepoxydeoxynivalenol

incidence: 5/5, sa. const.: castrated Large White × German Landrace, db Classic crossbred pigs, wt.: ≈24.6 kg, contamination: artificial (dose: 0.05, 0.57, or 1.23 mg DON/kg mash* or 0.07, 0.55, or 1.13 mg DON/kg pellets*, o., for 11 weeks; for detailed information please see the article), conc.: nd*, country: Germany¹⁴³³, *after 78/79 days (thereof 11 weeks of DON-administration)

FUMONISIN B,

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control

incidence: 3/10, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc. range: 0.8-6 ng/g* **, Ø conc.: 2.67 ng/g* **, country: Hungary/ Germany⁸⁷, *in muscle *psoas major*, **after 22 days toxin feeding period incidence: 3/10, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB, 20 mg FB, + 5 mg FB, /animal, o., for 22 days; for detailed information please see the article), conc. range: 1.2-1.6 ng/g* **, Ø conc.: 1.47 ng/g* **, country: Hungary/Germany87, *in muscle longissimus dorsi, **after 22 days toxin feeding period

incidence: $6/6^*$, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: no FB₁ (for detailed information please see the article), conc.: nd, country: Germany/Hungary¹⁰⁹, *control

incidence: 13/13, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5–11 days; for detailed information please see the article), conc. range: 3–50 µg/kg* **, Ø conc.: 20.14 µg/kg* **, country: Germany/Hungary¹⁰⁹, *in muscle *biceps femoris*, **on 6th day of the experiment

incidence: 13/13, sa. const.: castrated pigs of identical genotype, wt.: \approx 12-14 kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5-11 days; for detailed information please see the article), conc. range: 3-68 µg/kg* **, Ø conc.: 15.57 µg/kg* **, country: Germany/Hungary¹⁰⁹, *in muscle *longissimus dorsi*, **on 6th day of the experiment

incidence: 12/13, sa. const.: castrated pigs of identical genotype, wt.: ≈12–14 kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5–11 days; for detailed information please see the article), conc. range: 2–256 µg/kg* **, Ø conc.: 37.46 µg/

kg* **, country: Germany/Hungary¹⁰⁹, *in muscle *psoas major*, **on 6th day of the experiment

FUMONISIN B, incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: no FB, FB, and FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/ Germany87, *control incidence: 1/10, sa. const. weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB, 20 mg FB, + 5 mg FB₃/animaly, o., for 22 days; for detailed information please see the article), conc.: 1.6 ng/g* **, country: Hungary/Germany⁸⁷, *in muscle psoas major, **after 22 days toxin feeding incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB, 20 mg FB $_3$ + 5 mg FB $_3$ /animal, o., for

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.69–2.06 ng/g*, Ø conc.: 1.875 ng/g*, country: USA⁴²⁵, *after 4 h

22 days; for detailed information please see

Hungary/Germany⁸⁷, *in muscle longissimus

dorsi, **after 22 days toxin feeding period

the article), conc.: nd* **, country:

3'-HYDROXY HT-2 TOXIN incidence: 2/2, sa. const.:

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.10–1.90 ng/g*, Ø conc.: 1.50 ng/g*, country: USA⁴²⁵, *after 4 h

OCHRATOXIN A

incidence: 5/5*, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: no OTA

(for detailed information please see the article), conc.: nd, country: Denmark/ USA¹⁰², *control

incidence: ?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed; for detailed information please see the article), conc.: 11.54 μg/kg* (mean value), country: Denmark/USA102, *1 day after termination of OTA-exposure incidence: ?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed: for detailed information please see the article), conc.: 2.22 µg/kg* (mean value), country: Denmark/USA¹⁰², *8 days after termination of OTA-exposure incidence: ?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed; for detailed information please see the article), conc.: nd*, country: Denmark/USA102, *15 days after termination of OTAexposure

incidence: ?/5, sa. const.: female pigs of Danish Landrace, age: ≈8 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 ppm crystalline OTA, o., once daily for 1 month, afterwards toxin-free diets for various intervals fed; for detailed information please see the article), conc.: nd*, country: Denmark/USA¹⁰², *29 days after termination of OTA-exposure

incidence: ?/?, sa. const.: weaners (specific pathogen free), wt.: 14–18 kg, contamination: artificial (dose: ? μ g OTA addition; for detailed information please see the article), conc. range: \leq 32 μ g/kg* **, country: Denmark²⁰⁴, *calculated value based on the amount of OTA in blood

after 24 h on toxin-free diet, **in muscle psoas major

incidence: $1/1^*$, sa. const.: pregnant gilts, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control incidence: 2/2, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg OTA + 0.13 mg OTB/**kg b. wt., o., for 8 days during early pregnancy), conc. range: $0.13-0.15 \, \mu g/g^*$, \emptyset conc.: $0.14 \, \mu g/g^*$, country: UK²⁶⁶, *measured on day 30 of pregnancy

incidence: 13/13*, sa. const.: castrated pigs, wt.: 20 kg, contamination: no OTA and/or CIT (for detailed information please see the article), conc.: nd, country: Denmark/USA³³⁰, *control incidence: ?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 µg crystalline OTA/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 8 µg/kg*
** (mean value), country: Denmark/
USA³³⁰, *in muscle *psoas major*, **after 6 weeks

incidence: ?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 650 µg crystalline CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: nd* **, country: Denmark/USA³³⁰, *in muscle *psoas major*, **after 6 weeks

incidence: ?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 μg crystalline

OTA + 650 µg crystalline CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 8 µg/kg* ** (mean value), country: Denmark/ USA³³⁰, *in muscle *psoas major*, **after 6 weeks

incidence: ?/13, sa. const.: castrated pigs, wt.: 20 kg, contamination: artificial (dose: 1,400 μg natural OTA + 650 μg natural CIT/kg feed, o., for 6 weeks; for detailed information please see the article), conc.: 37 μg/kg* ** (mean value), country: Denmark/USA³³⁰, *in muscle *psoas major*, **after 6 weeks

incidence: 8?/8*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 18.6 μg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 1); for detailed information please see the article), conc.: 13 μg/kg* ** (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old), **in muscle *psoas major*

incidence: 6?/6*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 8.0 μg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 2); for detailed information please see the article), conc.: nr* **, country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old), **in muscle psoas major

incidence: 8?/8*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 19.7 µg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 3); for detailed information please see the article), conc.: 18 µg/kg* ** (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old), **in muscle *psoas major*

incidence: 4/4*, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany365, *control incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 4.23 ng/g* (mean value), country: Germany365, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/ kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 1.44 ng/g* (mean value), country: Germany365, *after 28 days

incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning total OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 1.57 ng/g* (mean value), country: Germany³65, *after 28 days

incidence: 8?/8*, sa. const.: pigs, contamination: no OTA (for detailed information please see the article), conc.: <0.39 µg/kg (mean value), country: Germany366, *control incidence: 8?/8, sa. const.: pigs, contamination: artificial (dose: 22.11 mg OTA (in total), o., for 90 days; for detailed information please see the article), conc.: 2.7 μg/kg* (mean value), country: Germany366, *after 90 days incidence: 8?/8, sa. const.: pigs, contamination: artificial (dose: 88.44 mg OTA (in total), o., for 90 days; for detailed information please see the article), conc.: 10.3 μg/kg* (mean value), country: Germany366, *after 90 days

incidence: 2/2*, sa. const.: pigs, contamination: no OTA and/or DON (for detailed information please see the article), conc.: nd, country: Germany378, *control incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm crystalline OTA + 1.0 ppm crystalline DON, o., twice daily for 90 days; for detailed information please see the article), conc. range: 0.42-0.89 ng/g*, Ø conc.: 0.63 ng/g*, country: Germany³⁷⁸, *after 90 days incidence: 3/3, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm crystalline OTA, o., twice daily for 90 days; for detailed information please see the article), conc. range: 0.27-0.56 ng/g*, Ø conc.: 0.383 ng/g*, country: Germany³⁷⁸, *after 90 days incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 1.0 ppm crystalline DON, o., twice daily for 90 days; for detailed information please

see the article), conc.: nd*, country: Germany³⁷⁸, *after 90 days

incidence: 2?/2*, sa. const.: pigs, contamination: no OTA and/or ZEA (for detailed information please see the article), conc.: nr, country: Germany380, *control incidence: 6/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm OTA + 0.25 ppm ZEA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤2.44 ng/g*, country: Germany380, *after 91 days (thereof 90 days of OTA- and ZEA-administration) incidence: 3/3, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm OTA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤2.13 ng/g*, country: Germany³⁸⁰, *after 91 days (thereof 90 days of OTA-administration)

incidence: 3/3*, sa. const.: female pigs of Danish Landrace, age: 8–10 weeks, wt.: ≈20 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Denmark/ USA/Sweden³8³, *control incidence: 4?/4, sa. const.: female pigs of Danish Landrace, age: 8–10 weeks, wt.: ≈20 kg, contamination: artificial (dose: 1 mg crystalline OTA/kg feed, o., for 3 months; for detailed information please see the article), conc.: ≈9.5 µg/kg* (mean value), country: Denmark/USA/ Sweden³8³, *after ≈3 months

T-2 Toxin

incidence: 1/1, sa. const.: female weanling crossbred Yorkshire × Duroc × Hampshire swine, wt.: 7.5 kg, contamination: artificial (dose: **0.1 mg T-2 toxin** (labeled)/kg b. wt., intubated, once), conc.: 3.1 ppb* ** ***, country: USA³¹⁸, *calculated residue level, **T-2 toxin and/or metabolites, ***after 18 h incidence: 1/1, sa. const.: female weanling crossbred Yorkshire × Duroc × Hampshire swine, wt.: 9.5 kg, contamination: artificial

(dose: **0.4 mg T-2 toxin** (labeled)/kg b. wt., intubated, once), conc.: 11.5 ppb* ** ***, country: USA³¹⁸, *calculated residue level, **T-2 toxin and/or metabolites, ***after 18 h

incidence: 2/2*, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: no T-2 toxin, conc.: nr, country: USA⁴⁰³, *control incidence: 4/4, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: artificial (dose: 1.2 mg T-2 toxin, i.a., once), conc. range: ≈≤57 ppb*, country: USA⁴⁰³, *after ≈1 h (also measured after ≈2.1, 3 and 4 h, lowest value conc.: under limit of reliable quantitation after 4 h)

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.64–0.85 ng/g*, Ø conc.: 0.745 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 18–19 ng/g* **, Ø conc.: 18.5 ng/g* **, country: USA⁴²⁵, *after 4 h, **total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.48–1.07 ng/g*, Ø conc.: 0.775 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire \times Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.98–1.13 ng/g*, \emptyset conc.: 1.055 ng/g*, country: USA 425 , *after 4 h

T-2 Triol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.14–0.18 ng/g*, Ø conc.: 0.16 ng/g*, country: USA⁴²⁵, *after 4 h

ZEARALENONE

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days), conc.: nd* **, country: Hungary⁶³², *after 14 days, **in femoral muscle incidence: 2/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days), conc.: nd* **, country: Hungary⁶³², *after 14 days, **in shoulder blade muscle

α-Zearalenol

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days), conc.: <10 µg/kg* **, country: Hungary⁶³², *after 14 days, **in **femoral muscle** incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days), conc.: <10 µg/kg* **, country: Hungary⁶³², *after 14 days, **in **shoulder blade muscle**

B-ZEARALENOL

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days), conc.: pr* **, country: Hungary⁶³², *after 14 days, **in femoral muscle incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial

(dose: 15 ppm ZEA, o., for 14 days), conc.: pr* **, country: Hungary⁶³², *after 14 days, **in shoulder blade muscle

Pig myocardium may contain the following mycotoxins and/or their metabolites:

FUMONISIN B. incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: no FB, FB, + FB, (for detailed information please see the article), conc.: nd, country: Hungary/Germany87, *control incidence: 7/10, sa. const.: weaned barrows of the same genotype, wt.: 12-14 kg, contamination: artificial (dose: 50 mg FB, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc. range: 7.2-35.2 ng/g*, Ø conc.: 13.26 ng/g*, country: Hungary/ Germany⁸⁷, *after 22 days toxin feeding period

incidence: $6/6^*$, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: no FB_1 (for detailed information please see the article), conc.: nd, country: Germany/Hungary¹⁰⁹, *control incidence: 13/13, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: artificial (dose: 100 mg FB_1 daily, o., for 5–11 days; for detailed information please see the article), conc. range: 3–838 μ g/kg*, \emptyset conc.: 77.43 μ g/kg*, country: Germany/Hungary¹⁰⁹, *on 6th day of the experiment

Fumonisin B_2 incidence: 5/5*, sa. const.: we aned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control incidence: 10/10, sa. const.: we aned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/ animal, o., for 22 days; for detailed information please see the article), conc.: nd*, country: Hungary/Germany⁸⁷, *after 22 days toxin feeding period

Pig pancreas may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰⁷, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., iv., once), conc. range:
≤18.7 ng/g* (mean value), country:
Canada⁴⁰⁷, *after 1 h (also measured after
0.33, 3, 8 and 24 h, lowest conc.: nd
after 8 and 24 h)

FUMONISIN B,

incidence: 6/6*, sa. const.: castrated pigs of identical genotype, wt.: ≈12–14 kg, contamination: no FB₁ (for detailed information please see the article), conc.: nd, country: Germany/Hungary¹⁰⁹, *control

incidence: 12/12, sa. const.: castrated pigs of identical genotype, wt.: ≈12-14 kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5-11 days; for detailed information please see the article), conc. range: 24-464 µg/kg*, Ø conc.: 126.85 µg/kg*, country: Germany/ Hungary¹09, *on 6th day of the experiment

HT-2 TOXIN

incidence: 1/1, sa. const.: female crossbred Yorkshire × Hampshire swine, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 11.86 ng/g*, country: USA⁴²⁵, *after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 1/1, sa. const.: female crossbred Yorkshire × Hampshire swine, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc.: 17.79 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 Toxin

incidence: 1/1, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.52 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 1/1, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 159 ng/g* **, country: USA⁴²⁵, *after 4 h, **total metabolites

3'-Hydroxy T-2 Toxin

incidence: 1/1, sa. const.: female crossbred Yorkshire × Hampshire swine, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 3.13 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 Tetraol

incidence: 1/1, sa. const.: female crossbred Yorkshire × Hampshire swine, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.82 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TETRAOL

incidence: 1/1, sa. const.: female crossbred Yorkshire × Hampshire swine, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 3.07 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 TRIOL

incidence: 1/1, sa. const.: female crossbred Yorkshire × Hampshire swine, wt.: 20 kg,

contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.65 ng/g*, country: USA⁴²⁵, *after 4 h

α-Zearalenol

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days, conc.: 10 µg/kg*, country: Hungary⁶³², *after 14 days)

Pig placenta may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: $1/1^*$, sa. const.: pregnant gilts, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control incidence: 2/2, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg OTA + 0.13 mg OTB**/kg b. wt., o., for 8 days during early pregnancy), conc. range: $0.04-0.06 \ \mu g/g^*$, \emptyset conc.: $0.05 \ \mu g/g^*$, country: UK²⁶⁶, *measured on day 30 of pregnancy

Pig plasma may contain the following mycotoxins and/or their metabolites:

CYCLOPIAZONIC ACID

incidence: 3?/3, sa. const.: Piétran crossbred pigs, wt.: ≈97 kg, contamination: artificial (dose: 10 mg CPA/kg diet, o., for 6 days; for detailed information please see the article), conc. range: ≤464 ng/ml* (mean value), country: USA⁵⁷², *at day 6 (also measured at day 3, 4 and 5, lowest conc.: 370 ng/ml at day 3)

DEOXYNIVALENOL

incidence: 1/10, sa. const.: male and female crossbred piglets, age: 5 weeks, contamination: artificial (dose: **0.7 ppm DON** in the diet, for 1–5 weeks; for detailed information please see the

article), conc.: 53 ppb*, country: Canada/ USA70, *at 4 weeks (also measured at 1st and 5th week but conc · nd) incidence: 4/8, sa. const.: male and female crossbred piglets, age: 5 weeks, contamination: artificial (dose: 3.1 ppm DON in the diet, for 1-5 weeks; for detailed information please see the article), conc. range: 79-100 ppb*, country: Canada/USA70, *measured at 1st, 4th, and 5th week (pr. residue values are each lowest and highest value of 1st to 5th week measurement) incidence: 2/10, sa. const.: male and female crossbred piglets, age: 5 weeks, contamination: artificial (dose: 5.8 ppm DON in the diet, for 1-5 weeks; for detailed information please see the article), conc. range: 32-64 ppb*, country: Canada/USA70, *measured at 1st, 4th, and 5th week (pr. residue values are each lowest and highest value of 4th to 5th week measurement, 1st week conc.: nd)

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰७, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., i.v., once), conc. range:
≤1,337.3 ng/g* (mean value), country:
Canada⁴⁰७, *after 0.33 h (also measured
after 1, 3, 8 and 24 h, lowest conc.:
17.8 ng/g after 24 h)

incidence: 5?/5, sa. const.: castrated male Swedish Landrace pigs, wt.: ≈20 kg, contamination: artificial (dose: 2.5 mg 3-aDON/kg feed, o., 5 times in 2.5 days), conc. range: ≤64.4 ng/ml*, country: Sweden⁴¹⁶, *after 1 day (also measured after 3 days) incidence: 5?/5, sa. const.: castrated male Swedish Landrace pigs, wt.: ≈20 kg, contamination: artificial (dose: 2.5 mg 3-aDON/kg feed, o., 5 times in 2.5 days),

conc. range: ≤62.0 ng/ml*, country:

Sweden⁴¹⁶, *after 3 days (also measured after 1 day)

OCHRATOXIN A

incidence: ?/4, sa. const.: Large White castrated pigs, wt.: ≈ 35 kg, contamination: artificial (dose: 0.5 mg OTA/kg, $\mathbf{o.}$, once; for detailed information please see the article), conc. range: ≤ 1.74 µg/ml* (mean value), country: France¹⁷², *after 10 h (also at other hour intervals up to 72 h measured, lowest conc.: ≈ 1 µg/ml after 72 h)

incidence: ?/4, sa. const.: large White castrated pigs, wt.: \approx 35 kg, contamination: artificial (dose: 0.5 mg OTA/kg, **i.v.**, once; for detailed information please see the article), conc. range: \approx 510 µg/ml* (mean value), country: France¹⁷², *after 1 h? (also at other hour up to 72 h measured, lowest conc.: \approx 2 µg/ml after 72 h)

incidence: 4/4*, sa. const.: sexually matured boars Hungarian Large White and Dutch Landrace), wt.: 250 kg, contamination: no OTA (for detailed information please see the article), conc.: nr**, country: Hungary³⁹⁵, *control (low- and high-dosed boars), **in seminal plasma

incidence: 1/1*, sa. const.: sexually matured boar Hungarian Large White and Dutch Landrace), wt.: 250 kg, contamination: artificial (dose: 20 µg OTA, o., daily for 5 weeks; for detailed information please see the article), conc. range: ≤0.501 ng/ml** ***, country: Hungary³95, *low-dosed boar, after 63** days (thereof 5 weeks of OTA-administration) (also at other day intervals up to 77 days measured, except for the start values lowest conc.: ≈0.2 ng/ml after 77 days), ***in seminal plasma

incidence: 1/1*, sa. const.: sexually matured boar Hungarian Large White and Dutch Landrace), wt.: 250 kg, contamination: artificial (dose: 20 µg OTA, o., daily for 5 weeks; for detailed information please see the article), conc. range: ≤0.579 ng/ml** ***, country: Hungary³⁹⁵, *low-dosed boar, after 84** days (thereof 5 weeks of OTA-administration) (also at other day intervals up to 91 days measured, except for the start values lowest conc.: ≈0.1 ng/ml after 14 and 70 days), ***in seminal plasma incidence: 1/1*, sa. const.: sexually matured boar (Hungarian Large White and Dutch Landrace), wt.: 250 kg, contamination: artificial (dose: 40 µg OTA, o., daily for 5 weeks; for detailed information please see the article), conc. range: ≤0.709 ng/ml** ***, country: Hungary³⁹⁵, *high-dosed boar, **after 28 days (within 5 weeks of OTAadministration) (also at other day intervals up to 77 days measured, except for the start values lowest conc.: ≈0.25 ng/ ml after 49 days), ***in seminal plasma incidence: 1/1*, sa. const.: sexually matured boar (Hungarian Large White and Dutch Landrace), wt.: 250 kg, contamination: artificial (dose: 40 µg OTA, o., daily for 5 weeks; for detailed information please see the article), conc. range: ≤0.673 ng/ml** ***, country: Hungary³⁹⁵, *high-dosed boar, **after 28 days (within 5 weeks of OTA-administration) (also at other day intervals up to 91 days measured, except for the start values lowest conc.: ≈0.1 ng/ml after 91 days), ***in seminal plasma

SCIRPENTRIOL

incidence: 4/4*, sa. const.: male and female crossbred feeder pigs, wt.: 22.2–49.2 kg, contamination: no DAS (for detailed information please see the article), conc.: nd, country: USA⁵¹², *control

incidence: 3/4, sa. const.: male and female crossbred feeder pigs, wt.: 22.2–49.2 kg, contamination: artificial (dose: **0.5 or** 1 mg DAS/kg b. wt., injection, once; for

detailed information please see the article), conc. range: ≤240 µg/ml*, country: USA⁵¹², *collected after 8 h

T-2 Toxin

incidence: 2/2*, sa. const.: female swine of mixed breeding, wt.: 26-66 kg, contamination: no T-2 toxin, conc.: nd?, country: USA403, *control incidence: 2?/2, sa. const.: female swines of mixed breeding, wt.: 26-66 kg, contamination: artificial (dose: 0.3 mg T-2 toxin/kg, i.a., once), conc. range: ≈≤550 ppb* (mean value), country: USA403, *after 0 min (also at other min intervals up to 20 min measured, lowest value conc.: ≈55 ppb after 15 min) incidence: 2?/2, sa. const.: female swines of mixed breeding, wt.: 26-66 kg, contamination: artificial (dose: 0.6 mg T-2 toxin/kg, i.a., once), conc. range: \approx ≤2,700 ppb* (mean value), country: USA403, *after 0 min (also at other min intervals up to 20 min measured, lowest value conc.: ≈63 ppb after 20 min) incidence: 6?/6, sa. const.: female swines of mixed breeding, wt.: 26-66 kg, contamination: artificial (dose: 1.2 mg T-2 toxin/kg, i.a., once), conc. range: $\approx \le 3,650 \text{ ppb*}$ (mean value), country: USA403, *after 0 min (also at other min intervals up to 30 min measured, lowest value conc.: ≈125 ppb after 30 min)

ZEARALENONE

incidence: ?/?, sa. const.: female Yorkshire pigs, age: 10–14 weeks, wt.: 15–25 kg, contamination: artificial (dose: 5 mg ZEA (labeled)/kg b. wt., i.g., once; for detailed information please see the article), conc. range: ≤2.30 nmol/ml* **, country: Canada¹²²², *[³H]ZEA-eq., **after 2–3 h (also at other minute, hour and day intervals up to 4 days measured)

incidence: 1/1, sa. const.: prepubertal gilt of Swedish Landrace × Yorkshire breed, age: 5 months, wt.: 60 kg, contamination: artificial (dose: 192 µg ZEA/kg b. wt./day, o., for 4 days), conc.: ≈2.4 ng/ml*, country:

Sweden³⁰⁹, *after ≈1.4 days of ZEA-administration (also at other day intervals up to 10 days measured, lowest conc.: nd after 10 days)

incidence: 3/3*, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: no ZEA (for detailed information please see the article), conc.: nd, country: Canada422, *control incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: artificial (dose: 5 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 216 ng/ml* (avg. maximum conc.), country: Canada422, *sa. period over 7 h incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: artificial (dose: 10 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 327 ng/ml* (avg. maximum conc.), country: Canada422, *sa. period over 7 h incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: artificial (dose: 15 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 298 ng/ml* (avg. maximum conc.), country: Canada422, *sa. period over 7 h incidence: 3/3*, sa. const.: female weanling Yorkshire pigs, wt.: 7.6-20.0 kg, contamination: no ZEA (for detailed information please see the article), conc.: nd, country: Canada422, *control incidence: 3?/3, sa. const.: female weanling Yorkshire pigs, wt.: 7.6-20.0 kg, contamination: artificial (dose: 5 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 317 ng/ml* (avg. maximum conc.), country: Canada⁴²², *sa. period over 7 h incidence: 3?/3, sa. const.: female weanling Yorkshire pigs, wt.: 7.6-20.0 kg, contamination: artificial (dose: 10 mg

crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 290 ng/ml* (avg. maximum conc.), country: Canada⁴²², *sa. period over 7 h incidence: 3?/3, sa. const.: **female** weanling Yorkshire pigs, wt.: 7.6–20.0 kg, contamination: artificial (dose: **15 mg** crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 139 ng/ml* (avg. maximum conc.), country: Canada⁴²², *sa. period over 7 h

α-Zearalenol

incidence: 1/1, sa. const.: prepubertal gilt of Swedish Landrace × Yorkshire breed, age: 5 months, wt.: 60 kg, contamination: artificial (dose: 192 µg ZEA/kg b. wt./day, o., for 4 days), conc.: ≈8.8 ng/ml*, country: Sweden³09, *after ≈3.5 days of ZEA-administration (also at other day intervals up to 10 days measured, lowest conc.: nd after 10 days)

incidence: 3/3*, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: no ZEA (for detailed information please see the article), conc.: nd, country: Canada422, *control incidence: 3/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: (dose: 5 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 65 ng/ml* (avg. maximum conc.), country: Canada422, *sa. period over 7 h incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: artificial (dose: 10 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 233 ng/ml* (avg. maximum conc.), country: Canada422, *sa. period over 7 h incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: artificial (dose: 15 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see

the article), conc.: 199 ng/ml* (avg. maximum conc.), country: Canada422, *sa. period over 7 h incidence: 3/3*, sa. const.: female weanling Yorkshire pigs, wt.t: 7.6-20.0 kg, contamination: no ZEA; (for detailed information please see the article), conc.: nd, country: Canada422, *control incidence: 3?/3, sa. const.: female weanling Yorkshire pigs, wt.: 7.6-20.0 kg, contamination: artificial (dose: 5 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 319 ng/ml* (avg. maximum conc.), country: Canada422, *sa. period over 7 h incidence: 3?/3, sa. const.: female weanling Yorkshire pigs, wt.: 7.6-20.0 kg, contamination: artificial (dose: 10 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 190 ng/ml* (avg. maximum conc.), country: Canada422, *sa. period over 7 h incidence: 3?/3, sa. const.: female weanling Yorkshire pigs, wt.: 7.6-20.0 kg, contamination: artificial (dose: 15 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 72 ng/ml* (avg. maximum conc.), country: Canada422, *sa. period over 7 h

Pig rectum may contain the following mycotoxins and/or their metabolites:

Deoxynivalenol + Deepoxydeoxynivalenol incidence: ?/11, sa. const.: castrated male pigs, Ø wt.: 88.1 kg, contamination: artificial (dose: 4.2 mg DON/kg, o., for 7 days), conc. range: ≈≤610 μg/g* (mean value), country: Germany⁴¹³, *≈5 h after final DON-administration (also at other hour intervals up to 24 h measured, lowest conc.: ≈90 μg/g after 3 h)

Pig serum may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: ?/11, sa. const.: castrated male pigs, Ø wt.: 88.1 kg, contamination: artificial (dose: 4.2 mg DON/kg, o., for 7 days), conc. range: ≈≤14 ng/ml*, country: Germany⁴¹³, *6 h after final DON-administration (also at other hour intervals up to 24 h measured, lowest conc.: nd after 15 and 24 h)

incidence: 5?/5, sa. const.: castrated Large White × German Landrace, db Classic crossbred pigs, wt.: ≈24.6 kg, contamination: artificial (dose: 0.05, 0.57*, or 1.23 mg DON/kg mash* or 0.07, 0.55, or 1.13 mg DON/kg pellets, o., for 11 weeks; for detailed information please see the article), conc. range: ≤12.2 ng/ml* ** (mean value), country: Germany⁴⁸³, **after 78/79 days (thereof 11 weeks of DON-administration), ***values of the other DON-treatments lower

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤21.6 ng/ml* ** (mean value), country: Germany⁵³⁷, *9.57 mg DON and 0.358 mg ZEA/kg diet fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

Deepoxydeoxynivalenol

incidence: 5/5, sa. const.: castrated Large White × German Landrace, db Classic crossbred pigs, wt.: ≈24.6 kg, contamination: artificial (dose: 0.05, 0.57, or 1.23 mg DON/kg mash* or 0.07, 0.55, or 1.13 mg DON/kg pellets*, o., for 11 weeks; for detailed information please see the article), conc.: nd*, country: Germany⁴8³, *after 78/79 days (thereof 11 weeks of DON-administration) incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days;

for detailed information please see the article), conc. range: ≤4.1 ng/ml* ** (mean value), country: Germany⁵³⁷, *9.57 DON and 0.358 ZEA (mg/kg diet) fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

OCHRATOXIN A

incidence: ?/?, sa. const.: weaners (specific pathogen free), wt.: 14–18 kg, contamination: artificial (dose: ? µg OTA addition; for detailed iwnformation please see the article), conc. range: ≤838 µg/l*, country: Denmark²⁰⁴, *blood sa. taken after 24 h on toxin free diet

incidence: 1/1*, sa. const.: pregnant gilts, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control incidence: 1/1, sa. const.: pregnant gilts, contamination: artificial (dose: 0.38 mg OTA + 0.13 mg OTB/kg b. wt., o., for 8 days during early pregnancy), conc.: 6.99 µg/ml*, country: UK²⁶⁶, *measured on day 30 of pregnancy

incidence: 8?/8*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 18.6 µg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 1); for detailed information please see the article), conc.: 316 µg/l* (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old)

incidence: 6?/6*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: $8.0~\mu g$ OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 2); for detailed information please see the article), conc.: $258~\mu g/l^*$ (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old)

incidence: 8?/8*, sa. const.: Danish Landrace piglets, age: 8 weeks, contamination: artificial (dose: 19.7 µg OTA/kg liveweight/day, o., over a period of 6 weeks (treatment 3); for detailed information please see the article), conc.:

386 μg/l* (mean value), country: Denmark³³⁶, *sa. taken at weaning (pigs 8 weeks old)

incidence: 2?/2*, sa. const.: pigs, contamination: no OTA and/or DON (for detailed information please see the article), conc. range: ≤1.93 ng/g**, country: Germany378, *control, **after 90 days (also at other day intervals up to 90 days measured, lowest conc.: 0.65 ng/g directly after the start of the experiment) incidence: 6?/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm crystalline OTA + 1.0 ppm crystalline DON, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤59.19 ng/g* (mean value), country: Germany378, *after 10 days of OTA- and DON-administration (also at other day intervals up to 90 days measured, lowest conc.: 0.77 ng/g directly after the start of the experiment) incidence: 3?/3, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm crystalline OTA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤32.42 ng/g* (mean value), country: Germany³⁷⁸, *after 90 days of OTA-administration (also at other day intervals up to 90 days measured, lowest conc.: 0.68 ng/g directly after the start of the experiment) incidence: 6?/6, sa. const.: pigs, contamination: artificial (dose: **1.0 ppm crystalline DON!**, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤2.76 ng/g* (mean value), country: Germany378, *after 90 days of DON-administration (also at other day intervals up to 90 days measured, lowest conc.: 0.93 ng/g directly after the start of the experiment)

incidence: 2?/2*, sa. const.: pigs, contamination: no OTA and/or ZEA (for detailed information please see the article), conc. range: ≤1.65 ng/g** (mean value), country: Germany³⁸⁰, *control, **after

90 days after the start of the experiment (also at other day intervals up to 90 days measured, lowest conc.: 0.62 ng/g directly after the start of the experiment) incidence: 6?/6, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm OTA + 0.25 ppm ZEA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤70.53 ng/g* (mean value), country: Germany380, *after 56 days of OTA- and ZEA-administration (also at other day intervals up to 90 days measured, lowest conc.: 0.71 ng/g directly after the start of the experiment) incidence: 3?/3, sa. const.: pigs, contamination: artificial (dose: 0.1 ppm OTA, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤65.26 ng/g* (mean value), country: Germany380, *after 56 days of OTA-administration (also at other days up to 90 day intervals measured, lowest conc.: 0.72 ng/g directly after the start of the experiment) incidence: 6?/6, sa. const.: pigs, contamination: artificial (dose: 0.25 ppm ZEA!, o., twice daily for 90 days; for detailed information please see the article), conc. range: ≤4.29 ng/g* (mean value), country: Germany380, *after 90 days of ZEA-administration (also at other days up to 90 day intervals measured, lowest conc.: 1.07 ng/g directly after the start of the experiment)

incidence: ?/4*, sa. const.: sexually matured boars Hungarian Large White and Dutch Landrace), wt.: 250 kg, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Hungary³95, *control (low- and high-dosed boars) incidence: 1/1*, sa. const.: sexually matured boar (Hungarian Large White and Dutch Landrace), wt.: 250 kg, contamination: artificial (dose: 20 µg OTA, o., daily for 5 weeks; for detailed information please see the article), conc. range: ≤0.794 ng/ml**, country: Hungary³95, *low-dosed boar, **after

28 days (within 5 weeks of OTA-administration) (also at other day intervals up to 77 days measured, except for the start values lowest conc.: ≈0.1 ng/ml after 63, 70 and 77 days) incidence: 1/1*, sa. const.: sexually matured boar (Hungarian Large White and Dutch Landrace), wt.: 250 kg, contamination: artificial (dose: 20 µg OTA, o., daily for 5 weeks; for detailed information please see the article), conc. range: ≤2.06 ng/ml**, country: Hungary395, *low-dosed boar, **after 35 days (thereof 5 weeks of OTA-administration) (also at other day intervals up to 84 days measured, except for the start values lowest conc.: ≈0.1 ng/ml after 58, 63 and 77 days) incidence: 1/1*, sa. const.: sexually matured boar (Hungarian Large White and Dutch Landrace), wt.: 250 kg, contamination: artificial (dose: 40 µg OTA, o., daily for 5 weeks; for detailed information please see the article), conc. range: ≤2.56 ng/ml**, country: Hungary³⁹⁵, *high-dosed boar, **after 42 days (thereof 5 weeks of OTA-administration) (also at other day intervals up to 77 days measured, except for the start values lowest conc.: ≈1.05 ng/ml after 21 days) incidence: 1/1*, sa. const.: sexually matured boar (Hungarian Large White and Dutch Landrace), wt.: 250 kg, contamination: artificial (dose: 40 µg OTA, o., daily for 5 weeks; for detailed information please see the article), conc. range: ≤1.462 ng/ml**, country: Hungary395, *high-dosed boar, **after 42 days (thereof 5 weeks of OTA-administration) (also at other day intervals up to 84 days measured, except for the start values lowest conc .: ≈0.1 ng/ml after 70 and 84 days)

incidence: 6/6*, sa. const.: pathogen-free male and female pigs, age: ≈8 weeks, wt.: 10–12 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Bulgaria/France⁴¹⁹, *control incidence: 6?/6, sa. const.: pathogen-free male and female pigs, age: ≈8 weeks, wt.:

10-12 kg, contamination: artificial (dose: 90 ng OTA/g feed, o., for 3 months; for detailed information please see the article), conc.: 11.47 ng/ml* (mean value), country: Bulgaria/France419, *at the end of 3-month feeding period incidence: 6?/6, sa. const.: pathogen-free male and female pigs, age: ≈8 weeks, wt.: 10-12 kg, contamination: artificial (dose: 130 ng OTA/g feed, o., for 3 months; for detailed information please see the article), conc.: 20.92 ng/ml* (mean value), country: Bulgaria/France419, *at the end of 3-month feeding period incidence: 6?/6, sa. const.: pathogen-free male and female pigs, age: ≈8 weeks, wt. 10-12 kg, contamination: artificial (dose: 180 ng OTA/g feed, o., for 3 months; for detailed information please see the article), conc.: 32.31 ng/ml* (mean value), country: Bulgaria/France419, *at the end of 3-month feeding period

incidence: 6?/6, sa. const.: pathogen-free male and female pigs, age: ≈8 weeks, wt.: 10-12 kg, contamination: artificial (dose: 130, 305 or 790 ng OTA/g feed, o., for 5 months; for detailed information please see the article), conc.: 18.2 ng/ml* (mean and residue value of the 3 given conc. together), country: Bulgaria/France419, *at the end of 5-month feeding period incidence: 3?/3, sa. const.: pathogen-free male and female pigs, age: ≈8 weeks, wt.: 10-12 kg, contamination: artificial (dose: 130, 305 or 790 ng OTA/g feed, o., for 5 months; for detailed information please see the article), conc.: tr (mean and residue value of the 3 given conc. together), country: Bulgaria/France⁴¹⁹, *at the end of 5-month feeding period and 1 week on OTA-free diet incidence: 3/3, sa. const.: pathogen-free male and female pigs, age: ≈8 weeks, wt.: 10-12 kg, contamination: artificial (dose: 130, 305 or 790 ng OTA/g feed, o., for 5 months; for detailed information please see the article), conc.: nd (residue value of the 3 given conc. together), country:

Bulgaria/France⁴¹⁹, *at the end of 5-month feeding period and 1 month on OTA-free diet

OCHRATOXIN B

incidence: 1/1*, sa. const.: pregnant gilts, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control incidence: 1/1, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg OTA + 0.13 mg OTB**/kg b. wt., o., for 8 days during early pregnancy), conc.: 1.71 µg/ml*, country: UK²⁶⁶, *measured on day 30 of pregnancy

DIACETOXYSCIRPENOL

incidence: 1/1*, sa. const.: female pig, wt.: ≈20 kg, contamination: no DAS, conc.: nd, country: Germany⁴²¹, *control incidence: 4/4, sa. const.: female pigs, wt.: ≈20 kg, contamination: artificial (dose: 2 mg DAS/kg b. wt., by intubation, once), conc. range: ≈9.2 ng/ml* (mean value), country: Germany⁴²¹, *after 0.5 h (also at other hour intervals up to 96 h measured, lowest conc.: nd after 48 h)

MONOACETOXYSCIRPENOL

incidence: 1/1*, sa. const.: female pig, wt.: ≈20 kg, contamination: no DAS, conc.: nd, country: Germany⁴²¹, *control incidence: 4/4, sa. const.: female pigs, wt.: ≈20 kg, contamination: artificial (dose: 2 mg DAS/kg b. wt., by intubation, once), conc. range: ≈4.2 ng/ml*, country: Germany⁴²¹, *after 1 h (also at other hour intervals up to 96 h measured, lowest conc.: nd after 48 h)

SCIRPENTRIOL

incidence: 1/1*, sa. const.: female pig, wt.: ≈20 kg, contamination: no DAS, conc.: nd, country: Germany⁴²¹, *control incidence: 4/4, sa. const.: female pigs, wt.: ≈20 kg, contamination: artificial (dose: 2 mg DAS/kg b. wt., by intubation, once), conc. range: ≈4.3 ng/ml**, country: Germany⁴²¹, *after 1 h (also at other hour intervals up to 96 h measured, lowest conc.: nd after 48 h)

ZEARALENONE

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: 15 ppm ZEA, o., for 14 days), conc.: <10 μg/kg*, country: Hungary⁶³², *after 14 days

α-Zearalenol

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days), conc.: 10 μg/kg*, country: Hungary⁶³², *after 14 days

β-ZEARALENOL

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary 632 , *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days), conc.: <10 μ g/kg*, country: Hungary 632 , *after 14 days

Pig skin may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴07, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., i.v., once), conc. range:
≤31.0 ng/g* (mean value), country:
Canada⁴07, *after 0.33 h (also measured after
1, 3, 8 and 24 h, lowest conc.: nd after 24 h)

HT-2 Toxin

incidence: 8/8*, sa. const.: specificpathogen-free derived crossbred female pigs, age: 11–12 weeks, wt.: 31–43 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nd, country: USA499, *control incidence: 4?/4, sa. const.: specificpathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.: 31-43 kg, contamination: artificial (dose: 15 mg T-2 toxin/kg, t., once; for detailed information please see the article), conc. range: ≤75.00 ppm* (mean value), country: USA499, *after 7 days (also measured after 1, 3 and 14 days, lowest conc.: 2.20 ppm after 1 day)

NEOSOLANIOL

incidence: 8/8*, sa. const.: specificpathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.: 31-43 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nd, country: USA499, *control incidence: 4?/4, sa. const.: specific-pathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.: 31-43 kg, contamination: artificial (dose: 15 mg T-2 toxin/kg, t., once; for detailed information please see the article), conc. range: ≤12.00 ppm* (mean value), country: USA499, *after 7 days (also measured after 1, 3 and 14 days, lowest conc.: 0.09 ppm after 1 day)

4-Deacetylneosolaniol incidence: 8/8*, sa. const.: specific-pathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.: 31-43 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nd, country: USA499, *control incidence: 4?/4, sa. const.: specific-pathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.: 31-43 kg, contamination: artificial (dose: 15 mg T-2 toxin/kg, t., once; for detailed information please see the article), conc. range: ≤24.00 ppm* (mean value), country: USA499, *after 7 days (also measured after 1, 3 and 14 days, lowest conc.: 0.73 ppm after 1 day)

T-2 Toxin

incidence: 8/8*, sa. const.: specific-pathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.: 31-43 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nd, country: USA499, *control

incidence: ?/4, sa. const.:

specific-pathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.: 31–43 kg, contamination: artificial (dose: 15 mg T-2 toxin/kg, t., once; for detailed information please see the article), conc. range: ≤247.00 ppm* (mean value), country: USA499, *after 3 days (also measured after 1, 7 and 14 days, lowest conc.: 40.00 ppm after 14 days)

T-2 TETRAOL

incidence: 8/8*, sa. const.: specific-pathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.: 31-43 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nd, country: USA499, *control incidence: 5?/5, sa. const.: specific-pathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.: 31-43 kg, contamination: artificial (dose: 15 mg T-2 toxin/kg, t., once; for detailed information please see the article), conc. range: ≤5.60 ppm* (mean value), country: USA499, *after 14 days (also measured after 1, 3 and 7 days, lowest conc.: nd after 1 day)

T-2 Triol.

incidence: 8/8*, sa. const.: specific-pathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.: 31–43 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nd, country: USA499, *control incidence: 5?/5, sa. const.:

specific-pathogen-free derived crossbred female pigs, age: 11-12 weeks, wt.:

31–43 kg, contamination: artificial (dose: 15 mg T-2 toxin/kg, t., once; for detailed information please see the article), conc. range: ≤8.70 ppm* (mean value), country: USA⁴⁹⁹, *after 14 days (also measured after 1, 3 and 7 days, lowest conc.: 0.21 ppm after 3 days)

Pig spleen may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglet, wt.: 15 kg, contamination: artificial (dose: 3.1 μg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 0.4 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after 24 h incidence: 1/1, sa. const.: female Hampshire × Deutsches Edelschwein piglet, wt.: 15 kg, contamination: artificial (dose: 3.1 μg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 0.4 ppb* **, country: Switzerland⁶⁶, *AFB₁ eq., **after 48 h

incidence: 1/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc.: 2.60 ppb*, country: France⁸⁸, *after 33 days

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μg AFB₁/kg diet, 273 μg AFB₂/kg diet, 300 μg AFG₁/kg diet and 285 μg AFG₂/kg diet, o., for 21 days), conc. range: tr-0.15 μg/kg*, country: USA¹³⁸, *after ≈22 days (thereof 21 days of AF-administration)

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,) for 19 days; for detailed information please see the article), conc.: 3.3 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB,) for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

AFLATOXIN B,

incidence: 1/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc.: 2.70 ppb*, country: France⁸⁸, *after 33 days

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μg AFB₁/kg diet, 273 μg AFB₂/

kg diet, 300 μ g AFG₁/kg diet and 285 μ g AFG₂/kg diet, o., for 21 days), conc. range: tr-0.05 μ g/kg*, country: USA¹³⁸, *after \approx 22 days (thereof 21 days of AF-administration)

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,), for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,), for 19 days; for detailed information please see the article), conc.: 1.0 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of 642 µg AFB₁), for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

AFLATOXIN B_{2a} incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 μg AFB₁/kg diet, 273 μg AFB₂/kg diet, 300 μg AFG₁/kg diet and 285 μg AFG₂/kg diet, o., for 21 days), conc. range:

appreciable amounts*, country: USA¹³⁸, *after ≈22 days (thereof 21 days of AF-administration)

AFLATOXIN M₁ incidence: 1/2, sa. const.: adult swines, contamination: artificial (dose: 1.08–1.09 mg AFB₁ (besides other AFs), o., daily for 33 days; for detailed information please see the article), conc.:

0.90 ppb*, country: France88, *after 33 days

incidence: 4/4*, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: no AFs, conc.: nd, country: USA¹³⁸, *control incidence: 4?/4, sa. const.: crossbred (Duroc × Yorkshire) barrows, wt.: 24.5–26.3 kg, contamination: artificial (dose: 662 µg AFB₁/kg diet, 273 µg AFB₂/kg diet, 300 µg AFG₁/kg diet and 285 µg AFG₂/kg diet, o., for 21 days), conc. range: tr*, country: USA¹³⁸, *after ≈22 days (thereof 21 days of AF-administration)

AFLATOXIN M

incidence: ?/?*, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: France314, *control incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 1: mixed feeding, avg. daily intake of 870 µg AFB,), for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 109 kg incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 2: separate feeding = peanut oil meal 40% and corn gluten meal 30%, avg. daily intake of 1,566 µg AFB,), for 19 days; for detailed information please see the article), conc.: 0.4 μg/kg*, country: France³¹⁴, *final wt. of the animal 97 kg

incidence: 1/1, sa. const.: Large White growing female pigs, age: 79 days, wt.: 20 kg, contamination: artificial (dose: natural AFs addition (treatment 3: separate feeding = peanut oil meal 0% and corn gluten meal 0%, avg. daily intake of **642 µg AFB**₁), for 26 days; for detailed information please see the article), conc.: nd*, country: France³¹⁴, *final wt. of the animal 104 kg

DEOXYNIVALENOL

incidence: 4/4*, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: no DON addition (for detailed information please see the article), conc.: nd, country: USA64, *control incidence: ?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: artificial (dose: 0.9 ppm DON (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 19 ppb* (mean value), country: USA64, *after 3 weeks post-treatment incidence: ?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: artificial (dose: 2.0 ppm DON (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 9 ppb* (mean value), country: USA64, *after 3 weeks post-treatment incidence: ?/4, sa. const.: barrows and gilts, Ø wt.: 7.7 kg, contamination: artificial (dose: 2.8 ppm DON (analyzed value) in the diet, o., for 3 weeks; for detailed information please see the article), conc.: 16 ppb* (mean value), country: USA64, *after 3 weeks post-treatment

incidence: 5/5*, sa. const.: healthy Yorkshire barrows, age: ≈11–15 weeks, wt.: 17–22 kg, contamination: no DON, conc.: nd, country: Canada⁴⁰⁷, *control incidence: ?/4, sa. const.: healthy Yorkshire barrows, age: ≈11–15 weeks, wt.: 17–22 kg, contamination: artificial (dose: 1.0 mg DON/kg b. wt., iv., once), conc. range: ≤165.0 ng/g* (mean value), country: Canada⁴⁰⁷, *after 0.33 h (also measured after 1, 3, 8 and 24 h, lowest conc.: nd after 24 h)

FUMONISIN B,

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control incidence: 8/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/ animal, o., for 22 days; for detailed information please see the article), conc. range: 2.4–31.2 ng/g*, Ø conc.: 9.2 ng/g*, country: Hungary/Germany⁸⁷, *after 22 days toxin feeding period

incidence: $6/6^*$, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: no FB₁ (for detailed information please see the article), conc.: nd, country: Germany/Hungary¹⁰⁹, *control incidence: 13/13, sa. const.: castrated pigs of identical genotype, wt.: $\approx 12-14$ kg, contamination: artificial (dose: 100 mg FB₁ daily, o., for 5-11 days; for detailed information please see the article), conc. range: 26-7,980 µg/kg*, \emptyset conc.: 792.64 µg/kg*, country: Germany/Hungary¹⁰⁹, *on 6th day of the experiment

FUMONISIN B.

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ and FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/ Germany⁸⁷, *control incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/animal, o., for 22 days; for detailed information please see the article), conc.: nd*, country:

Hungary/Germany⁸⁷, *after 22 days toxin feeding period

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 2.16–2.25 ng/g*, Ø conc.: 2.205 ng/g*, country: USA⁴²⁵, *after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 2.74–3.44 ng/g*, Ø conc.: 3.09 ng/g*, country: USA⁴²⁵, *after 4 h

OCHRATOXIN A

incidence: 4/4*, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany365, *control incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 9.57 ng/g* (mean value), country: Germany³⁶⁵, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 2.57 ng/g* (mean value), country: Germany365, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/ kg diet/day, in the morning total OTAration, o., for 28 days; for detailed information please see the article), conc.: 2.94 ng/g* (mean value), country: Germany365, *after 28 days

T-2 Toxin

incidence: 2/2*, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: no T-2 toxin, conc.: nr, country: USA⁴⁰³, *control incidence: 4/4, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: artificial (dose: 1.2 mg T-2 toxin/kg, i.a., once), conc. range: ≈≤161 ppb*, country: USA⁴⁰³, *after ≈1 h (also measured after ≈2.1, 3 and 4 h, lowest value conc.: under limit of reliable quantitation after 4 h)

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.04–2.73 ng/g*, Ø conc.: 1.885 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 29–42 ng/g* **, Ø conc.: 35.5 ng/g* **, country: USA⁴²⁵,

3'-Hydroxy T-2 Toxin

*after 4 h, **total metabolites

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.54–1.78 ng/g*, Ø conc.: 1.16 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 Tetraol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.04–0.05 ng/g*, Ø conc.: 0.045 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.92–1.52 ng/g*, Ø conc.: 1.22 ng/g*, country: USA⁴²⁵, *after 4 h

T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.11–0.26 ng/g*, Ø conc.: 0.185 ng/g*, country: USA⁴²⁵, *after 4 h

DEEPOXY T-2 TRIOL

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.03 ng/g*, country: USA⁴²⁵, *after 4 h

ZEARALENONE

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days), conc.: ≈10 µg/kg*, country: Hungary⁶³², *after 14 days

α -Zearalenol

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days), conc.: 25 µg/kg*, country: Hungary⁶³², *after 14 days

β-ZEARALENOL

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days), conc.: ≈10 µg/kg*, country: Hungary⁶³², *after 14 days

Pig stomach may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOI.

incidence: 8/8, sa. const.: male and female crossbred piglets, age: 5 weeks, contamination: artificial (dose: 5.8 ppm DON in the diet, for 1–5 weeks; for detailed information please see the article), conc. range: tr–1,600 ppb* **, country: Canada/USA⁷⁰, *in stomach contents (pigs fed **0.7 or 3.1 ppm DON** diets = no data), **measured at 1st, 4th, and 5th week (pr. residue values are each lowest and highest value of 1st to 5th week measurement)

HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 2.86–3.21 ng/g*, Ø conc.: 3.035 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.76–2.80 ng/g* ***, Ø conc.: 1.78 ng/g* ***, country: USA⁴²⁵, *in stomach contents, **after 4 h

DEEPOXY HT-2 TOXIN

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.28–0.62 ng/g*, Ø conc.: 0.45 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.51–1.15 ng/g* ***, Ø conc.: 0.83 ng/g* ***, country: USA⁴²⁵, *in stomach contents, **after 4 h

3'-Hydroxy HT-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire \times Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 2.53–3.45 ng/g*, \emptyset conc.: 2.99 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.47–8.68 ng/g* **, Ø conc.: 5.075 ng/g* **, country: USA⁴²⁵, *in stomach contents, **after 4 h

OCHRATOXIN A

incidence: 4/4*, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany³⁶⁵, *control incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg natural OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 14.61 ng/g* (mean value), country: Germany365, *after 28 days incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning and evening half of OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 4.24 ng/g* (mean value), country: Germany365, *after 28 days

incidence: 8?/8, sa. const.: male and females pigs, wt.: ≈70 kg, contamination: artificial (dose: 0.09 mg crystalline OTA/kg diet/day, in the morning total OTA-ration, o., for 28 days; for detailed information please see the article), conc.: 5.13 ng/g* (mean value), country: Germany³⁶⁵, *after 28 days

T-2 Toxin

incidence: 2/2*, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nr, country: USA⁴⁰³, *control incidence: 3/?, sa. const.: female swines of mixed breeding, wt.: 26–66 kg, contamination: artificial (dose: 2.4 mg T-2 toxin/kg, i.a., once), conc. range: tr-16.4 ppm* **, country: USA⁴⁰³, *in stomach contents, **after ≈19.5 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.66-3.34 ng/g*, Ø conc.: 2.00 ng/g*, country: USA425, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 86-91 ng/g* **, Ø conc.: 88.5 ng/g* **, country: USA425, *after 4 h, **total metabolites incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.46-3.02 ng/g* **, Ø conc.: 1.74 ng/g* **, country: USA425, *in stomach contents, **after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 79-399 ng/g* ** ***, Ø conc.: 239 ng/g* ** ***, country: USA425, *in stomach contents, **after 4 h, ***total metabolites

3'-Hydroxy T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.11–2.09 ng/g*,

Ø conc.: 1.6 ng/g*, country: USA⁴²⁵,
*after 4 h

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.62–2.77 ng/g* **, Ø conc.: 2.195 ng/g* **, country: USA 425, *in stomach contents. **after 4 h

T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: tr-2.09 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i. vs., once), conc. range: 0.11–11.86 ng/g* **, Ø conc.: 5.985 ng/g* **, country: USA⁴²⁵, *in stomach contents, **after 4 h

DEEPOXY T-2 TETRAOL

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 1.23–1.36 ng/g*, Ø conc.: 1.295 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.64–1.87 ng/g* **, Ø conc.: 1.255 ng/g* **, country: USA⁴²⁵, *in stomach contents. **after 4 h

T-2 Triol

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.20–0.28 ng/g*, Ø conc.: 0.24 ng/g*, country: USA⁴²⁵, *after 4 h incidence: 2/2, sa. const.: female crossbred

incidence: 2/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.29–1.17 ng/g* **, \emptyset conc.: 0.73 ng/g* **, country: USA *15 toxic units to the contents, ** after 4 h

DEEPOXY T-2 TRIOL

incidence: 2/2, sa. const.: female crossbred Yorkshire \times Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc. range: 0.09–0.10 ng/g*, \emptyset conc.: 0.095 ng/g*, country: USA⁴²⁵, *after 4 h

incidence: 1/2, sa. const.: female crossbred Yorkshire × Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.vs., once), conc.: 0.50 ng/g* **, country: USA⁴²⁵, *in **stomach contents**, **after 4 h

Pig testes may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰⁷, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., i.v., once), conc. range:
≤123.8 ng/g* (mean value), country:
Canada⁴⁰⁷, *after 1 h (also measured after
0.33, 3, 8, and 24 h, lowest conc.: nd after
24 h)

Pig tissue may contain the following mycotoxins and/or their metabolites:

T-2 Toxin

incidence: 8/8*, sa. const.: specific-pathogen-free derived crossbred female pigs, age: 11–12 weeks, wt.: 31–43 kg, contamination: no T-2 toxin (for detailed information please see the article), conc.: nd, country: USA⁴⁹⁹, *control incidence: 3?/3, sa. const.: specific-pathogen-free derived crossbred female

pigs, age: 11–12 weeks, wt.: 31–43 kg, contamination: artificial (dose: 15 mg T-2 toxin/kg, t., once; for detailed information please see the article), conc. range: ≤34.00 ppm* ** (mean value), country: USA⁴⁹⁹, *in subcutaneous tissue, **after 1 day (also measured after 3, 7, and 14 days, lowest conc.: 3.00 ppm after 14 days)

Pig urine may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 4/4*, sa. const.: male and female feeder pigs, wt.: 54.2–71.6 kg, contamination: no AFB₁, conc.: nr, country: USA¹³⁶, *control incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2–71.6 kg, contamination: artificial (dose: 400 μg AFB₁/kg diet, o., for 4 weeks), conc. range: 0.22–1.17 μg/kg*, Ø conc.: 0.565 μg/kg*, country: USA¹³⁶, * after 3 weeks (within 4 weeks of AFB₁-administration)

AFLATOXIN M_1 incidence: $4/4^*$, sa. const.: male and female feeder pigs, wt.: 54.2–71.6 kg, contamination: no AFB₁, conc.: nr, country: USA¹³⁶, *control incidence: 4/4, sa. const.: male and female feeder pigs, wt.: 54.2–71.6 kg, contamination: artificial (dose: $400 \mu g$ AFB₁/kg diet, o., for 4 weeks), conc. range: 1.8– $8.16 \mu g/kg^*$, \emptyset conc.: $3.68 \mu g/kg^*$, country: USA¹³⁶, * after 3 weeks (within 4 weeks of AFB, -administration)

DEOXYNIVALENOL

incidence: 1/1, sa. const.: male and female crossbred piglets, age: 5 weeks, contamination: artificial (dose: **0.7 ppm DON** in the diet, for 4 weeks; for detailed information please see the article), conc.: 200 ppb*, country: Canada/USA⁷⁰, *at 4 weeks incidence: 3/3, sa. const.: male and female crossbred piglets, age: 5 weeks,

contamination: artificial (dose: **3.1 ppm DON** in the diet, for 4 weeks; for detailed information please see the article), conc. range: 150–570 ppb*, Ø conc.: 340 ppb*, country: Canada/USA⁷⁰, *at 4 weeks incidence: 4/4, sa. const.: male and female crossbred piglets, age: 5 weeks, contamination: artificial (dose: **5.8 ppm DON** in the diet, for 1–5 weeks; for detailed information please see the article), conc. range: 40–4,320 ppb*, country: Canada/USA⁷⁰, *measured at 1st, 4th, and 5th week (pr. residue values are each lowest and highest value of 1st to 5th week measurement)

incidence: 7/7*, sa. const.: pigs, contamination: no DON, conc.: nd or tr**, country: Austria³⁶⁹, *control, **measured over 16 days incidence: ?/7, sa. const.: pigs, contamination: artificial (dose: **0.23 mg DON**/kg b. wt./day, o., for 16 days), Ø conc.: 580 μg/l* (mean value), country: Austria³⁶⁹, *measured over 16 days

incidence: 5/5*, sa. const.: healthy
Yorkshire barrows, age: ≈11–15 weeks,
wt.: 17–22 kg, contamination: no DON,
conc.: nd, country: Canada⁴⁰⁷, *control
incidence: ?/4, sa. const.: healthy Yorkshire
barrows, age: ≈11–15 weeks, wt.: 17–22 kg,
contamination: artificial (dose: 1.0 mg
DON/kg b. wt., i.v., once), conc. range:
≤139,885.0 ng/g* (mean value), country:
Canada⁴⁰⁷, *after 1 h (also measured after
0.33, 3, 8, and 24 h, lowest conc.:
477.5 ng/g after 24 h)

incidence: 5?/5, sa. const.: castrated male Swedish Landrace pigs, wt.: ≈20 kg, contamination: artificial (dose: 2.5 mg 3-aDON/kg feed, o., 5 times in 2.5 days), conc. range: 58–131 ng/ml*, country: Sweden⁴¹⁶, *total DON after feeding

incidence: ?/16*, sa. const.: barrows, wt.: 28 kg, contamination: artificial (dose: 0.09 mg DON/kg wheat (but DON not intended; wheat proportion in the diet

0%); for detailed information please see the article), conc.: 0.035 mg/kg (mean value), country: Germany⁴⁸⁴, *control incidence: ?/16, sa. const.: barrows, wt.: 28 kg, contamination: artificial (dose: **2.64 mg natural DON**/kg wheat (wheat proportion in the diet 17.5%), o., for 70 days?; for detailed information please see the article), conc.: 0.681 mg/kg* (mean value), country: Germany⁴⁸⁴, *after 13 weeks

incidence: ?/16, sa. const.: barrows, wt.: 28 kg, contamination: artificial (dose: 4.41 mg natural DON/kg wheat (wheat proportion in the diet 35%), o., for 70 days?; for detailed information please see the article), conc.: 1.167 mg/kg* (mean value), country: Germany⁴⁸⁴, *after 13 weeks

incidence: ?/5*, sa. const.: male castrated and female fattening pigs (Deutsches Bundeshybridzuchtprogramm), wt.: 34.1-103.7 kg, contamination: artificial (dose: 0.15 mg DON/kg wheat, contaminated (proportion in the diet 0%), o., for 7 days?; for detailed information please see the article), conc. range: 0.057-0.119 mg/l (mean value), country: Austria/Germany530, *control incidence: ?/5, sa. const.: male castrated and female fattening pigs (Deutsches Bundeshybridzuchtprogramm), wt.: 34.1-103.7 kg, contamination: artificial (dose: 3.86 mg DON/kg wheat, contaminated (proportion in the diet 40%), o., for 7 days?; for detailed information please see the article), conc. range: 1.270-1.678 mg/l (mean value), country: Austria/Germany⁵³⁰

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤1,572 ng/ml* ** (mean value), country: Germany⁵³⁷, *9.57 mg DON and 0.358 mg ZEA/kg diet

fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

incidence: 7?/7, sa. const.: Yorkshire barrows, wt.: ≈35 kg, contamination: artificial (dose: **0.19 mg DON**/kg diet dry matter, o., for 2 weeks (diet C); for detailed information please see the article), conc.: 0.07 mg* (mean value), country: Canada⁶⁰⁶, *in a 5-days collection period incidence: 7?/7, sa. const.: Yorkshire barrows, wt.: ≈35 kg, contamination: artificial (dose: **4.66 mg DON**/kg diet dry matter, o., for 1 week (diet C in the first week); for detailed information please see the article), conc.: 2.21 mg* (mean value), country: Canada⁶⁰⁶, *in a 5-days collection period

DEEPOXYDEOXYNIVALENOL

incidence: 7/7*, sa. const.: pigs, contamination: no DON, conc.: nd or tr**, country: Austria³⁶⁹, *control, **measured over 16 days incidence: ?/7, sa. const.: pigs, contamination: artificial (dose: **0.23 mg** DON/kg b. wt./day, o., for 16 days), Ø conc.: 32 µg/l (mean value), country: Austria³⁶⁹, *measured over 16 days

incidence: 16/16*, sa. const.: barrows, wt.: 28 kg, contamination: artificial (dose: 0.09 mg DON/kg wheat (but DON not intended; wheat proportion in the diet 0%); for detailed information please see the article), conc.: nd, country: Germany484, *control incidence: ?/16, sa. const.: barrows, wt.: 28 kg, contamination: artificial (dose: 2.64 mg natural DON/kg wheat (wheat proportion in the diet 17.5%), o., for 70 days?; for detailed information please see the article), conc.: 0.025 mg/kg* (mean value), country: Germany484, *after 13 weeks incidence: ?/16, sa. const.: barrows, wt.:

28 kg, contamination: artificial

(dose: 4.41 mg natural DON/kg wheat

(wheat proportion in the diet 35%), o.,

for 70 days?; for detailed information please see the article), conc.: 0.048 mg/kg* (mean value), country: Germany⁴⁸⁴, *after 13 weeks

incidence: 5/5*, sa. const.: male castrated and female fattening pigs (Deutsches Bundeshybridzuchtprogramm), wt.: 34.1-103.7 kg, contamination: 0.15 mg DON/kg wheat, contaminated (proportion in the diet 0%), o., for 7 days?; (for detailed information please see the article), conc.: nd, country: Austria/ Germany530, *control incidence: ?/5, sa. const.: male castrated and female fattening pigs (Deutsches Bundeshybridzuchtprogramm), wt.: 34.1-103.7 kg, contamination: artificial (dose: 3.86 mg DON/kg wheat, contaminated (proportion in the diet 40%), o., for 7 days?; for detailed information please see the article), conc. range: 0.060-0.095 mg/l (mean value), country: Austria/ Germany530

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤289 ng/ml* ** (mean value), country: Germany⁵³⁷, *9.57 mg DON and 0.358 mg ZEA/kg diet fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

incidence: 7?/7, sa. const.: Yorkshire barrows, wt.: ≈35 kg, contamination: artificial (dose: 0.19 mg DON/kg diet dry matter, o., for 2 weeks (diet C); for detailed information please see the article), conc.: nd*, country: Canada⁶⁰⁶, *daily incidence: 7?/7, sa. const.: Yorkshire barrows, wt.: ≈35 kg, contamination: artificial (dose: 4.66 mg DON/kg diet dry matter, o., for 1 week (diet C in the first week); for detailed information please see

the article), conc.: 0.149 mg* (mean value), country: Canada⁶⁰⁶, *daily

FUMONISIN B,

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/ animal, o., for 22 days; for detailed information please see the article), conc. range: 0.9–11.5 mg*, Ø conc.: 4.48 mg*, country: Hungary/Germany⁸⁷, *excreted between days 13 and 17

FUMONISIN B,

incidence: 5/5*, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: no FB₁, FB₂ + FB₃ (for detailed information please see the article), conc.: nd, country: Hungary/Germany⁸⁷, *control incidence: 10/10, sa. const.: weaned barrows of the same genotype, wt.: 12–14 kg, contamination: artificial (dose: 50 mg FB₁, 20 mg FB₂ + 5 mg FB₃/ animal, o., for 22 days; for detailed information please see the article), conc. range: 0.005–1.6 mg*, Ø conc.: 0.48 mg*, country: Hungary/Germany⁸⁷, *excreted between days 13 and 17

Nivalenol

incidence: 3/3, sa. const.: male castrated Swedish Landrace × Yorkshire pigs, wt.: 37–63 kg, contamination: artificial (dose: 0.05 mg NIV/kg b. wt, o., twice daily for 3 days (NIV-administration also 16 h before first blood sa. taken); for detailed information please see the article), conc. range: ≤336 ng/ml*, country: Sweden⁵⁰¹, *(total mean of all 3 days)

OCHRATOXIN A

incidence: $1/1^*$, sa. const.: pregnant gilts, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control incidence: 2/2, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg OTA + 0.13 mg OTB**/kg b. wt., o., for 8 days during early pregnancy), conc. range: $0.04-0.33 \mu g/mg$ creatinine*, Ø conc.: $0.185 \mu g/mg$ creatinine*, country: UK²⁶⁶, *on day 29 on completion of feeding toxins

incidence: 4?/4, sa. const.: pathogen-free male and female pigs, age: ≈8 weeks, wt.: 10-12 kg, contamination: artificial (dose: 130, 305, or 790 ng OTA/g feed, o., for 5 months; for detailed information please see the article), conc.: 52.37 ng/ml* (mean and residue value of the 3 given conc. together), country: Bulgaria/France419, *at the end of 5-month feeding period incidence: 2?/2, sa. const.: pathogen-free male and female pigs, age: ≈8 weeks, wt.: 10-12 kg, contamination: artificial (dose: 130, 305, or 790 ng OTA/g feed, o., for 5 months; for detailed information please see the article), conc.: 15.08 ng/ml* (mean and residue value of the 130 and 790 ng OTA/g feed together), country: Bulgaria/France⁴¹⁹, *at the end of 5-month feeding period and 1 week on OTA-free diet

incidence: 3/3, sa. const.: pathogen-free male and female pigs, age: ≈8 weeks, wt.: 10–12 kg, contamination: artificial (dose: 130, 305, or 790 ng OTA/g feed, o., for 5 months: for detailed information please see the article), conc.: nd* (residue value of the 3 given conc. together), country: Bulgaria/France⁴¹⁹, *at the end of 5-month feeding period and 1 month on OTA-free diet

Ochratoxin α

incidence: 1/1*, sa. const.: pregnant gilt, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control incidence: 2/2, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg**

OTA + 0.13 mg OTB/kg b. wt., o., for 8 days during early pregnancy), conc. range: tr-0.18 µg/mg* creatinine, country: UK²⁶⁶, *on day 29 on completion of feeding toxins

OCHRATOXIN B

incidence: 1/1*, sa. const.: pregnant gilts, contamination: neither OTA nor OTB, conc.: nd, country: UK²⁶⁶, *control incidence: 1/2, sa. const.: pregnant gilts, contamination: artificial (dose: **0.38 mg OTA + 0.13 mg OTB**/kg b. wt., o., for 8 days during early pregnancy), conc.: 0.8 μg/mg creatinine*, country: UK²⁶⁶, *on day 29 on completion of feeding toxins

DIACETOXYSCIRPENOL

incidence: 4/4*, sa. const.: male and female crossbred feeder pigs, wt.: 22.2–49.2 kg, contamination: no DAS (for detailed information please see the article), conc.: nd, country: USA⁵¹², *control incidence: 2/4, sa. const.: male and female crossbred feeder pigs, wt.: 22.2–49.2 kg, contamination: artificial (dose: **0.5 or** 1 mg DAS/kg b. wt., injection, once; for detailed information please see the article), conc. range: ≤0.51 ng/ml*, country: USA⁵¹², *collected after 15 min

MONOACETOXYSCIRPENOL

incidence: 4/4*, sa. const.: male and female crossbred feeder pigs, wt.: 22.2–49.2 kg, contamination: no DAS (for detailed information please see the article), conc.: nd, country: USA⁵¹², *control incidence: 3/4, sa. const.: male and female crossbred feeder pigs, wt.: 22.2–49.2 kg, contamination: artificial (dose: **0.5 or** 1 mg DAS/kg b. wt., injection, once; for detailed information please see the article), conc. range: ≤0.80 ng/ml*, country: USA⁵¹², *collected after 15 min

SCIRPENTRIOL

incidence: 4/4*, sa. const.: male and female crossbred feeder pigs, wt.: 22.2–49.2 kg, contamination: no DAS (for detailed information please see the article), conc.: nd, country: USA⁵¹², *control

incidence: 4/4, sa. const.: male and female crossbred feeder pigs, wt.: 22.2–49.2 kg, contamination: artificial (dose: 0.5 or 1 mg DAS/kg b. wt., injection, once; for detailed information please see the article), conc. range: ≤10.40 ng/ml*, country: USA⁵¹², *collected after 15 min

T-2 Toxin

incidence: 2/2, sa. const.: female crossbred Yorkshire \times Hampshire swines, wt.: 20 kg, contamination: artificial (dose: 0.15 mg T-2 toxin (labeled and unlabeled)/kg b. wt., i.v., once), conc. range: 26.89–27.21 µg/ml* **, country: USA³08, *T-2 toxin and its metabolites, **after 120 min (also measured after 60, 180, and 240, except for the start values lowest conc.: 5.61–6.99 µg/ml after 240 min)

ZEARALENONE

incidence: 1/1, sa. const.: prepubertal gilt of Swedish Landrace × Yorkshire breed, age: 5 months, wt.: 60 kg, contamination: artificial (dose: 192 µg ZEA/kg b. wt./day, o., for 4 days), conc.: 158.9 ng/ml*, country: Sweden³09, *after 4 days of ZEA-administration (also at other day intervals up to 8 days measured, lowest conc.: ≈9 ng/ml after 8 days)

incidence: 3/3*, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: no ZEA (for detailed information please see the article), conc.: nd, country: Canada422, *control incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: artificial (dose: 5 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 42 ng/ml* (avg. maximum conc.), country: Canada422, *sa. collected when possible during dosing phase, sa. period over 7 h incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: artificial (dose: 10 mg crystalline ZEA/kg b. wt., o.,

4 times; for detailed information please see the article), conc.: 49 ng/ml* (avg. maximum conc.), country: Canada⁴²², *sa. collected when possible during dosing phase, sa. period over 7 h incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9–13.0 kg, contamination: artificial (dose: 15 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 197 ng/ml* (avg. maximum conc.), country: Canada⁴²², *sa. collected when possible during dosing phase, sa. period over 7 h

incidence: 1/1, sa. const.: gilt, wt.: 92 kg, contamination: artificial (dose: 150 μ g ZEA/kg b. wt., o., once), conc.: 784 μ g* ** (total), country: USA⁵²⁸, *after 8 h (also at other hour intervals up to 8 h measured), **in glucuronide form

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤43.1 ng/g* ** (mean value), country: Germany⁵³⁷, *9.57 mg DON and 0.358 mg ZEA/kg diet fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control

incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days) conc.: 450 µg/kg*, country: Hungary⁶³², *after 13/14 days

α-Zearalenol

incidence: 1/1, sa. const.: prepubertal gilt of Swedish Landrace × Yorkshire breed, age: 5 months, wt.: 60 kg, contamination: artificial (dose: 192 µg ZEA/kg b. wt./day, o., for 4 days), conc.: 170.8 ng/ml*, country: Sweden³⁰⁹, *after 4 days of

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ZEA-administration (also at other day intervals up to 8 days measured, lowest conc.: ≈8 ng/ml after 8 days)

incidence: 3/3*, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: no ZEA (for detailed information please see the article), conc.: nd, country: Canada422, *control incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9–13.0 kg, contamination: artificial (dose: 5 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 5 ng/ml* (avg. maximum conc.), country: Canada422, *sa. collected when possible during dosing phase, sa. period over 7 h incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: artificial (dose: 10 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 8 ng/ml* (avg. maximum conc.), country: Canada⁴²², *sa. collected when possible during dosing phase, sa. period over 7 h incidence: 3?/3, sa. const.: uncastrated male weanling Yorkshire pigs, wt.: 8.9-13.0 kg, contamination: artificial (dose: 15 mg crystalline ZEA/kg b. wt., o., 4 times; for detailed information please see the article), conc.: 80 ng/ml* (avg. maximum conc.), country: Canada⁴²², *sa. collected when possible during dosing phase, sa. period over 7 h

incidence: 9?/9, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤57.9 ng/g* ** (mean value), country: Germany⁵³⁷, *9.57 DON and 0.358 ZEA mg/kg diet fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days), conc.: 1,270 μg/kg*, country: Hungary⁶³², *after 13/14 days

B-ZEARALENOL

incidence: 9?/96, sa. const.: German Landrace gilts, age: 180 days, wt.: ≈103 kg, contamination: artificial (dose: DON/ZEA in wheat in different conc., o., for 35 days; for detailed information please see the article), conc. range: ≤3.3 ng/g* ** (mean value), country: Germany⁵³⁷, *9.57 mg DON and 0.358 mg ZEA/kg diet fed (both fed in highest conc.), **after 36 days (thereof 35 days of DON- and ZEA-administration)

incidence: 2?/2?*, sa. const.: male KAHYP pigs, wt.: ?, contamination: no ZEA, conc.: nd, country: Hungary⁶³², *control

incidence: 2?/2, sa. const.: male KAHYP pigs, wt.: 60 kg, contamination: artificial (dose: **15 ppm ZEA**, o., for 14 days), conc.: 620 μg/kg*, country: Hungary⁶³², *after 13/14 days

Pig, sow milk may contain the following mycotoxins and/or their metabolites:

Fumonisin B,

incidence: 1/1, sa. const.: milk from a sow 1 day after parturition, contamination: artificial (dose: *Fusarium moniliforme* culture material (=300 mg FB₁ daily), o., for 7 days until parturition no more FB₁; for detailed information please see the article), conc.: nd, country: Hungary⁶³³ incidence: 2/2, sa. const.: milk from sows 1 day after parturition, contamination: artificial (dose: *Fusarium moniliforme* culture material (=300 mg FB₁ daily), o., for 7–9 days until parturition, additionally

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300 mg FB₁ after parturition, o., daily for 7 days; for detailed information please see the article), conc. range: 23.0–27.5 ppb*, Ø conc.: 25.25 ppb*, country: Hungary⁶³³, *24 h after parturition

incidence: 1/1, sa. const.: milk from a sow 7 days after parturition, contamination: artificial (dose: Fusarium moniliforme culture material (=300 mg FB, daily), o., for 7 days until parturition no more FB,; for detailed information please see the article), conc.: nd, country: Hungary⁶³³ incidence: 2/2, sa. const.: milk from sows 7 days after parturition, contamination: artificial (dose: Fusarium moniliforme culture material (=300 mg FB, daily), o., for 7-9 days until parturition, additionally 300 mg FB, after parturition, o., daily for 7 days; for detailed information please see the article), conc. range: 18.0-25.5 ppb*, Ø conc.: 21.75 ppb*, country: Hungary633, *on the 7th day of life of piglets

ZEARALENOL

incidence: 2/2, sa. const.: milk from sows 8 days after parturition, contamination: artificial (dose: 40 ppm crystalline ZEA, o., from the 8th day of parturition for 9 days; for detailed information please see the article), conc. range: 0.575–0.79 ppm, country: Hungary/USA¹⁴⁸ (up to 5 days after the diet had been finished measured)

Piglet see Pig

Pony

Pony Artificial Contamination

Pony cecum may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6–8 months and one 10-year-old pony

mare, wt.: 42–107 kg (weanling ponies), contamination: artificial (dose: 6 mg AFB₁/kg b. wt. (lower and a higher dose(s) also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 722 ng/g tissue**, country: USA⁷³, *died after 34 h, **in cecal contents

Pony kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6–8 months and one 10-year-old pony mare, wt.: 42–107 kg (weanling ponies), contamination: artificial (dose: 2 mg AFB₁/kg b. wt. (equal and higher doses also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 0.46 ng/g tissue, country: USA⁷³, *died after 68 h

AFLATOXIN M,

incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6–8 months and one 10-year-old pony mare, wt.: 42–107 kg (weanling ponies), contamination: artificial (dose: 2 mg AFB₁/kg b. wt. (equal and higher doses also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 0.45 ng/g tissue, country: USA⁷³, *died after 68 h

Pony liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/1*, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6–8 months and one 10-year-old pony mare, wt.: 42–107 kg (weanling ponies), contamination: no AFB₁ (for detailed information please see the article), conc.: nd**, country: USA⁷³, *control, **died? after 70 days

incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 2 mg AFB,/kg b. wt. (higher doses also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc. range: 2.46*-2.59** ng/g tissue, country: USA73, ponies died after 76 h* and 68 h** incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 4 mg AFB,/ kg b. wt. (higher doses also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 30.00 ng/g tissue, country: USA73, *died after 46 h incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 6 mg AFB,/kg b. wt. (a lower and a higher dose also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 80.12 ng/g tissue, country: USA73, *died after 34 h

AFLATOXIN M, incidence: 1/1*, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: no AFB, (for detailed information please see the article), conc.: nd**, country: USA73, *control, **died? after 70 days incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 2 mg AFB,/kg b. wt. (higher doses also applicated, but no values recorded), nasogastric intubation, once; for detailed

information please see the article), conc. range: 0.25*-0.67** ng/g tissue, country: USA73, ponies died after 76 h* and 68 h** incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 4 mg AFB,/ kg b. wt. (higher doses also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 4.58 ng/g tissue, country: USA73, *died after 46 h incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 6 mg AFB,/kg b. wt. (a lower and a higher dose also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 11.92 ng/g tissue, country: USA73, *died after 34 h

Pony muscle may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B. incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 2 mg AFB,/kg b. wt. (equal and higher doses also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 2.17 ng/g tissue**, country: USA⁷³, *died after 68 h, **in gluteal muscle incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 4 mg AFB,/kg b. wt. (lower and higher doses also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.:

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21.46 ng/g tissue**, country: USA⁷³, *died after 46 h, **in gluteal muscle

AFLATOXIN M, incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 2 mg AFB,/kg b. wt. (equal and higher doses also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 0.68 ng/g tissue**, country: USA73, *died after 68 h, **in gluteal muscle incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 4 mg AFB,/kg b. wt. (lower and higher doses also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 2.31 ng/g tissue**, country: USA⁷³, *died after 46 h, **in gluteal muscle

Pony rectum may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 2 mg AFB,/ kg b. wt. (an equal and higher dose(s) also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc. range: 4,941*-7,103** ng/g tissue***, country: USA73, ponies died after 68 h* and 76 h**, ***in rectal contents incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 4 mg

AFB,/kg b. wt. (a lower and higher dose(s) also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 10,180 ng/g tissue**, country: USA73, *died after 46 h, **in rectal contents incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6-8 months and one 10-year-old pony mare, wt.: 42-107 kg (weanling ponies), contamination: artificial (dose: 6 mg AFB,/kg b. wt. (lower and a higher dose(s) also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 10,611 ng/g tissue**, country: USA73, *died after 34 h, **in rectal contents

Pony stomach may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: ?*/?, sa. const.: weanling pony foals (mixed breeding, of both sexes), age: 6–8 months and one 10-year-old pony mare, wt.: 42–107 kg (weanling ponies), contamination: artificial (dose: 6 mg AFB₁/kg* b. wt. (lower and a higher dose(s) also applicated, but no values recorded), nasogastric intubation, once; for detailed information please see the article), conc.: 5,466 ng/g tissue**, country: USA⁷³, *died after 34 h, **in stomach contents

Pork see Pig

Poultry

Poultry Natural Contamination

Poultry may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 5/14,sa. const.: birds of Denmark, contamination: natural, conc. range: 4.3–29.2 μg/kg, Ø 13.22 μg/kg, country: Denmark²⁹⁸

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Pullets see Hen

Quail

Ouail Artificial Contamination

Quail egg may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/?*, sa. const.: eggs from Japanese quails, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Poland³⁸², *control

incidence: ?/?, sa. const.: eggs from Japanese quails, contamination: artificial (dose: 1 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc.: nd, country: Poland382 (measured at other hour intervals up to 192 h) incidence: ?/?, sa. const.: eggs from Japanese quails, contamination: artificial (dose: 5 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤2.06 μg/kg* (mean value), country: Poland382, *72 h after OTA-administration (also at other hour intervals up to }192 h measured, lowest conc.: nd after 192 h) incidence: ?/?, sa. const.: eggs from

Japanese quails, contamination: artificial (dose: 20 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤3.5 µg/kg* (mean value), country: Poland³⁸², *48 h after OTA-administration (also at other hour intervals up to 96 h measured, except for the start value lowest conc.:

≈2.9 µg/kg after 96 h)

incidence: ?/?*, sa. const.: eggs from Japanese quails, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Poland³⁸², *control incidence: ?/?, sa. const.: eggs from Japanese quails, contamination: artificial (dose: 1 mg OTA/kg b. wt., o., once; for detailed information please see the

article), conc.: nr*, country: Poland382, *in abdominal yolks incidence: ?/?, sa. const.: eggs from Japanese quails, contamination: artificial (dose: 5 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤12.75 µg/kg* ** (mean value), country: Poland382, *in abdominal yolks, **12 h after OTA-administration (also measured at day 4) incidence: ?/?, sa. const.: eggs from Japanese quails, contamination: artificial (dose: 20 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤33.56 µg/kg* ** (mean value), country: Poland382, *in abdominal yolks, **12 h after OTA-administration (also measured at day 4)

Quail kidney may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/?*, sa. const.: eggs from Japanese quails, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Poland382, *control incidence: ?/?, sa. const.: eggs from Japanese quails, contamination: artificial (dose: 1 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc.: nr*, country: Poland382, *up to 8 days measured incidence: ?/?, sa. const.: eggs from Japanese quails, contamination: artificial (dose: 5 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≤80 µg/kg* (mean value), country: Poland382, *12 h after OTAadministration (up to 8 days measured) incidence: ?/?, sa. const.: eggs from Japanese quails, contamination: artificial (dose: 20 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≤114 µg/kg* (mean value), country: Poland382, *12 h after OTAadministration (up to 8 days measured)

354 Rabbit

Quail plasma may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 16?/16, sa. const.: male and female Japanese quails, wt.: ≈160 g, contamination: artificial (dose: 50 ng OTA/g b. wt., o., once), conc. range: ≤260 ng/ml (mean value), country: Sweden/Yugoslavia¹93 (at different min and hour intervals up to 48 h measured) incidence: 16?/16, sa. const.: male and female Japanese quails, wt.: ≈160 g, contamination: artificial (dose: 50 ng OTA/g, i.v., once), conc. range: ≤590 ng/ml (mean value), country: Sweden/Yugoslavia¹93 (at different min and hour intervals up to 48 h measured)

Rabbit

Rabbit Artificial Contamination

Rabbit kidney may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 4/4*, sa. const.: "blanc de Termonde" female rabbits, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Belgium²⁹⁹, *control incidence: 4?/4, sa. const.: "blanc de Termonde" female rabbits, contamination: artificial (dose: 193.4 ng natural OTA/g feed, for 19 days (lactation period); for detailed information please see the article), conc.: 1,241 ng/kg* ** (mean value), country: Belgium²⁹⁹, *in rabbit does, **after 19 days of toxin exposure during lactation incidence: 4?/4, sa. const.: sucklings from "blanc de Termonde" female rabbits, contamination: artificial (dose: OTA from the milk of lactating rabbits receiving 193.4 ng natural OTA/g feed; for detailed

information please see the article), conc.: 41 ng/kg* ** (mean value), country: Belgium²⁹⁹, *in **sucklings**, **after 19 days of toxin exposure during lactation

Rabbit liver may contain the following mycotoxins:

OCHRATOXIN A

incidence: 4/4*, sa. const.: "blanc de Termonde" female rabbits, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Belgium²⁹⁹, *control incidence: 4?/4, sa. const.: "blanc de Termonde" female rabbits, contamination: artificial (dose: 193.4 ng natural OTA/g feed, for 19 days (lactation period); for detailed information please see the article), conc.: 158 ng/kg* ** (mean value), country: Belgium²⁹⁹, *in rabbit does, **after 19 days of toxin exposure during lactation incidence: 4?/4, sa. const.: sucklings from "blanc de Termonde" female rabbits, contamination: artificial (dose: OTA from the milk of lactating rabbits receiving 193.4 ng natural OTA/g feed; for detailed information please see the article), conc.: <20 ng/kg* ** (mean value), country: Belgium²⁹⁹, *in sucklings, **after 19 days of toxin exposure during lactation

Rabbit mammary gland may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 4/4*, sa. const.: "blanc de Termonde" female rabbits, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Belgium²⁹⁹, *control incidence: 4?/4, sa. const.: "blanc de Termonde" female rabbits, contamination: artificial (dose: 193.4 ng natural OTA/g feed, o., for 19 days (lactation period); for detailed information please see the article), conc.: 109 ng/kg* (mean value),

Rabbit 355

country: Belgium²⁹⁹, *after 19 days of toxin exposure during lactation

Rabbit milk may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 4/4*, sa. const.: "blanc de Termonde" female rabbits, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Belgium²⁹⁹, *control incidence: 4?/4, sa. const.: "blanc de Termonde" female rabbits, contamination: artificial (dose: 193.4 ng natural OTA/g feed, o., for 19 days (lactation period); for detailed information please see the article), conc.: 49 ng/l* (mean value), country: Belgium²⁹⁹, *after 19 days of toxin exposure during lactation

Rabbit muscle may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 4/4*, sa. const.: "blanc de Termonde" female rabbits, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Belgium²⁹⁹, *control incidence: 4?/4, sa. const.: "blanc de Termonde" female rabbits, contamination: artificial (dose: 193.4 ng natural OTA/g feed, o., for 19 days (lactation period); for detailed information please see the article), conc.: 38 ng/kg* ** (mean value), country: Belgium²⁹⁹, *in rabbit does, **after 19 days of toxin exposure during lactation incidence: 4?/4, sa. const.: sucklings from "blanc de Termonde" female rabbits, contamination: artificial (dose: OTA from the milk of lactating rabbits receiving 193.4 ng natural OTA/g feed; for detailed information please see the article), conc.: <20 ng/kg* ** (mean value), country: Belgium²⁹⁹, *in sucklings, **after 19 days of toxin exposure during lactation

Rabbit plasma may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/6, sa. const.: male Fauve de Bourgogne rabbits, age: adult, weight: 2-3 kg, contamination: artificial (dose: 2 mg OTA/kg, o. (by gavage), once; for detailed information please see the article), conc. range: ≤2.13 µg/ml* (mean value), country: France¹⁷², *after 1 h (also at other hour intervals up to 12 h measured, lowest conc.: ≈0.7 µg/ml after 12 h) incidence: ?/6, sa. const.: male Fauve de Bourgogne rabbits, age: adult, weight: 2-3 kg, contamination: artificial (dose: 2 mg OTA/kg, i.v., once; for detailed information please see the article), conc. range: ≈≤15 μg/ml* (mean value), country: France172, *after 0.3 h? (also at other hour intervals up to 12 h measured, lowest conc.: ≈0.75 µg/ml after 12 h)

incidence: 4/4*, sa. const.: "blanc de Termonde" female rabbits, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Belgium²⁹⁹, *control incidence: 4?/4, sa. const.: "blanc de Termonde" female rabbits, contamination: artificial (dose: 193.4 ng natural OTA/g feed, o., for 19 days (lactation period); for detailed information please see the article), conc.: 3,144 ng/l* ** (mean value), country: Belgium²⁹⁹, *in rabbit does, **after 19 days of toxin exposure during lactation incidence: 4?/4*, sa. const.: sucklings from "blanc de Termonde" female rabbits, contamination: artificial (dose: OTA from the milk of lactating rabbits receiving 193.4 ng natural OTA/g feed; for detailed information please see the article), conc.: 51 ng/l* ** (mean value), country: Belgium²⁹⁹, *in sucklings, **after 19 days of toxin exposure during lactation

Rainbow trout see Fish, rainbow trout

Rat

Rat Artificial Contamination

Rat may contain the following mycotoxins and/or their metabolites:

AFLATOXIN

incidence: ?/3-5, sa. const.: male weanling Sprague-Dawley-derived rats, contamination: artificial (dose: 1.90 mg AFB, (labeled)/kg, i.p., once, prior to dosing 5% casein fed ad libitum for 15 days (group 1); for detailed information please see the article), conc.: 81.7 pmol AF bound to chromatin/mg DNA* (mean value), country: USA118, *after 6 h incidence: ?/3-5, sa. const.: male weanling Sprague-Dawley-derived rats, contamination: artificial (dose: 1.90 mg AFB, (labeled)/kg, i.p., once, prior to dosing 20% casein pair-fed to group 1 for 15 days (group 2); for detailed information please see the article), conc.: 187 pmol AF bound to chromatin/mg DNA* (mean value), country: USA118, *after 6 h incidence: ?/3-5, sa. const.: male weanling Sprague-Dawley-derived rats, contamination: artificial (dose: 1.90 mg AFB, (labeled)/kg, i.p., once, prior to dosing 20% casein fed ad libitum for 15 days (group 3); for detailed information please see the article), conc.: 259 pmol AF bound to chromatin/mg DNA* (mean value), country: USA118, *after 6 h incidence: ?/3-5, sa. const.: male weanling Sprague-Dawley-derived rats, contamination: artificial (dose: 1.90 mg AFB, (labeled)/kg, i.p., once, prior to dosing 5% casein fed ad libitum for 15 days (group 1); for detailed information please see the article), conc.: 56.4 pmol AF bound to DNA/mg DNA* (mean value), country: USA118, *after 6 h incidence: ?/3-5, sa. const.: male weanling Sprague-Dawley-derived rats, contamination: artificial (dose: 1.90 mg AFB, (labeled)/kg, i.p., once, prior to

dosing 20% casein pair-fed to group 1 for 15 days (group 2); for detailed information please see the article), conc.: 141 pmol AF bound to DNA/mg DNA* (mean value), country: USA118, *after 6 h incidence: ?/3-5, sa. const.: male weanling Sprague-Dawley-derived rats, contamination: artificial (dose: 1.90 mg AFB, (labeled)/kg, i.p., once, prior to dosing 20% casein fed ad libitum for 15 days (group 3); for detailed information please see the article), conc.: 202 pmol AF bound to DNA/mg DNA* (mean value), country: USA118, *after 6 h incidence: ?/3-5, sa. const.: male weanling Sprague-Dawley-derived rats, contamination: artificial (dose: 1.90 mg AFB, (labeled)/kg, i.p., once, prior to dosing 5% casein fed ad libitum for 15 days (group 1); for detailed information please see the article), conc.: 11.9 pmol AF bound to protein/mg protein* (mean value), country: USA118, *after 6 h incidence: ?/3-5, sa. const.: male weanling Sprague-Dawley-derived rats, contamination: artificial (dose: 1.90 mg AFB, (labeled)/kg, i.p., once, prior to dosing 20% casein pair-fed to group 1 for 15 days (group 2); for detailed information please see the article), conc.: 21.8 pmol AF bound to protein/mg protein* (mean value), country: USA118, *after 6 h incidence: ?/3-5, sa. const.: male weanling Sprague-Dawley-derived rats, contamination: artificial (dose: 1.90 mg AFB, (labeled)/kg, i.p., once, prior to dosing 20% casein fed ad libitum for 15 days (group 3); for detailed information please see the article), conc.: 35.2 pmol AF bound to protein/mg protein* (mean value), country: USA118, *after 6 h

Rat Adipose see Rat fat

Rat bile may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 5?/5*, sa. const.: male Sprague-Dawley rats, wt.: 250–300 g,

contamination: artificial (dose: 0.25 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 234 nmol/kg/h** *** **** (mean value), country: USA120, *control, **PG-treatment (0.267 ml/kg/day) for 9 days prior to AFB, -treatment, ***total AFB metabolites, ****in bile collected for 1 h incidence: 5?/5, sa. const.: male Sprague-Dawley rats, wt.: 250-300 g, contamination: artificial (dose: 0.25 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 283 nmol/kg/h* ** *** (mean value), country: USA120, *BHA-treatment (500 mg/kg/day) for 9 days prior to AFB,-treatment, **total AFB metabolites, ***in bile collected for 1 h

incidence: 4?/4, sa. const.: male Sprague-Dawley rats, wt.: 180-190 g, contamination: artificial (dose: 40 µg AFB, (labeled and unlabeled)/g b. wt., i.p., once; for detailed information please see the article), conc.: 4.6 nmol* ** *** (mean value), country: USA552, *control, **AFB,-GSH-conjugate, ***in bile collected for 2 h incidence: 4?/4, sa. const.: male Sprague-Dawley rats, wt.: 180-190 g, contamination: artificial (dose: 40 µg AFB, (labeled and unlabeled)/g b. wt., i.p., once; for detailed information please see the article), conc.: 12.2 nmol* ** *** (mean value), country: USA552, *0.1% PB-treatment for 1 week (in drinking water), **AFB,-GSH-conjugate, ***in bile collected for 2 h

incidence: ?/5–6, sa. const.: male

African giant rats, wt.: 1.5–2.0 kg,
contamination: artificial (dose: 1 mg

AFB₁ (labeled)/kg b. wt., i.v., once; for
detailed information please see the
article), conc.: 87 ng/g liver*,
country: Nigeria⁵⁹³, *after ≈8 h of
treatment
incidence: ?/5–6, sa. const.: male weanling
Wistar-derived rats, wt.: 250 g,
contamination: artificial (dose: 1 mg AFB₁

(labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 175 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

AFLATOXIN B incidence: 5?/5*, sa. const.: male Sprague-Dawley rats, wt.: 250-300 g, contamination: artificial (dose: 0.25 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 73.4 nmol/kg/h** *** **** (mean value), country: USA¹²⁰, *control, **PG-treatment (0.267 ml/kg/day) for 9 days prior to AFB,-treatment, ***AFB-GSH, ****in bile collected for 1 h incidence: 5?/5, sa. const.: male Sprague-Dawley rats, wt.: 250-300 g, contamination: artificial (dose: 0.25 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 147 nmol/kg/h* ** *** (mean value),

country: USA120, *BHA-treatment

treatment, **AFB-GSH, ***in bile

collected for 1 h

≈8 h of treatment

(500 mg/kg/day) for 9 days prior to AFB,-

AFLATOXIN M_1 incidence: ?/5–6, sa. const.: male African giant rats, wt.: 1.5–2.0 kg, contamination: artificial (dose: 1 mg AFB $_1$ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 54 ng/g liver*, country: Nigeria 593 , *after \approx 8 h of treatment incidence: ?/5–6, sa. const.: male weanling Wistar-derived rats, wt.: 250 g, contamination: artificial (dose: 1 mg AFB $_1$ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 166 ng/g liver*, country: Nigeria 593 , *after

AFLATOXIN P₁ incidence: 5?/5*, sa. const.: male Sprague-Dawley rats, wt.: 250–300 g, contamination: artificial (dose: 0.25 mg AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 16.3 nmol/kg/h** *** **** (mean value), country: USA¹²⁰, *control, **PG-treatment

(0.267 ml/kg/day) for 9 days prior to AFB₁-treatment, ***AFP₁-Gluc, ****in bile collected for 1 h incidence: 5?/5, sa. const.: male Sprague-Dawley rats, wt.: 250–300 g, contamination: artificial (dose: 0.25 mg AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 31.7 nmol/kg/h* *** *** (mean value), country: USA¹²⁰, *BHA-treatment (500 mg/kg/day) for 9 days prior to AFB₁-treatment, **AFP₁-Gluc, ***in bile collected for 1 h

AFLATOXIN Q,

incidence: ?/5–6, sa. const.: male African giant rats, wt.: 1.5–2.0 kg, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 245 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

incidence: ?/5–6, sa. const.: male weanling Wistar-derived rats, wt.: 250 g, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 189 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

FUMONISIN B,

incidence: 4?/4, sa. const.: male Wistar rats, age: 6–8 months, wt.: 350–400 g, contamination: artificial (dose: 7.5 mg FB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: \approx 50.42 mg FB₁*, country: South Africa⁶²³, *after 30–60 min (also at other hour intervals up to 24 h measured, lowest conc. nd after \approx 9 h)

OCHRATOXIN A

incidence: ?/3 or more*, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Canada¹⁴⁴, *control incidence: 3?/3, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: artificial (dose: 100 µg

OTA/rat, i.v., once; for detailed information please see the article), conc.: 1.1 nmol/ml (mean value), country: Canada¹⁴⁴

incidence: 3/3, sa. const.: male Wistar rats, wt.: 270 g, contamination: artificial (dose: 2 mg crystalline OTA/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: >100 ng/0.1 ml bile*, Ø conc.: >100 ng/0.1 ml bile*, country: Yugoslavia/Sweden¹⁹¹, *after 6 h (also measured after 12, 24, and 48 h, lowest conc.: 3.2 ng/0.1 ml bile after 48 h)

incidence: 1/1, sa. const.: male albumin-deficient Sprague-Dawley rat, age: 9-10 weeks, contamination: artificial (dose: 2.2 mg OTA/kg, by injection, once), conc. range: ≈≤138 µg/ml* (mean value), country: Japan⁶¹³, *after 5 min (also at other min intervals up to 15 min measured, except for the start value lowest conc.: ≈75 μg/ml after 15 min) incidence: 3?/3, sa. const.: normal Sprague-Dawley rats, age: 9-10 weeks, contamination: artificial (dose: 4.1 mg **OTA**/kg, by injection, once), conc. range: ≈≤1 µg/ml*? (mean value), country: Japan⁶¹³, *after 30 min collection period (also measured after 30-60 and 60-90 min collection period, lowest conc.: <0.5 μg/ml after 60–90 min) incidence: 3?/3, sa. const.: albumin-deficient Sprague-Dawley rats, age: 9-10 weeks, contamination: artificial (dose: 4.1 mg OTA/kg, by injection, once), conc.: ≈≤175 µg/ml* (mean value), country: Japan⁶¹³, *after 30 min collection period (also measured after 30-60 and 60-90 min collection period, lowest conc.:

Ochratoxin α

≈48 µg/ml after 60-90 min)

incidence: ?/3 or more*, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: no OTα (for detailed information please see the article), conc.: nr, country: Canada¹⁴⁴, *control incidence: 3?/3, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g,

contamination: artificial (dose: $100 \mu g$ $OT\alpha/rat$, i.v., once; for detailed information please see the article), conc.: 5.01 nmol/ml (mean value), country: Canada¹⁴⁴

Lactone Opened Ochratoxin A incidence: 3/3 or more*, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: no OP-OTA (for detailed information please see the article), conc.: nr, country: Canada¹⁴⁴, *control incidence: 3?/3, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: artificial (dose: 100 μg OP-OTA/rat, i.v., once; for detailed information please see the article), conc.: 4.4 nmol/ml (mean value), country: Canada¹⁴⁴

4-Hydroxyochratoxin A incidence: 3/3 or more*, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: no OTA-OH (for detailed information please see the article), conc.: nr, country: Canada¹⁴⁴, *control incidence: 3?/3, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: artificial (dose: 100 μg OTA-OH/rat, i.v., once: for detailed

information please see the article), conc.:

14.7 nmol/ml (mean value), country:

OCHRATOXIN B

Canada¹⁴⁴

incidence: 3/3 or more*, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: no OTB (for detailed information please see the article), conc.: nr, country: Canada¹⁴⁴, *control incidence: 3?/3, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: artificial (dose: 100 µg OTB/rat, i.v., once; for detailed information please see the article), conc.: 4.2 nmol/ml (mean value), country: Canada¹⁴⁴

Rat blood may contain the following mycotoxins and/or their metabolites:

AFLATOXINS

incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (dust-adsorbed), once; for detailed information please see the article), conc.: ≈≤570 nM AFs*, country: USA604, *after 2 h (also at other min and hour intervals up to 18 h measured, lowest conc.: ≈460 nM AFs after ≈0.5 h) incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (microcrystalline form), once; for detailed information please see the article), conc.: ≈≤480 nM AFs*, country: USA604, *after 12 h (also at other min and hour intervals up to 18 h measured, lowest conc.: ≈120 nM AFs after $\approx 0.5 \text{ h}$ incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (dust-adsorbed), once; for detailed information please see the article), conc.: ≈≤465 nM AFs*, country: USA604, *after 1 day (also at other day intervals up to 21 days measured, lowest conc.: nd after 21 days) incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (microcrystalline form), once; for detailed information please see the article), conc.: ≈≤480 nM AFs, country: USA⁶⁰⁴, *after 1 day (also at other day intervals up to 21 days measured, lowest conc.: nd after 21 days)

OCHRATOXIN A

incidence: 3?/3*, sa. const.: male F344 rats, age: 8 weeks, contamination: no OTA (for detailed information please see the article), conc.: 14 pmol/ml** (mean value), country: Germany¹²⁵, *control, **72 h after OTA-administration incidence: 3?/3, sa. const.: male F344 rats, age: 8 weeks, contamination: artificial

(dose: 0.5 mg OTA/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: ≤4,614 pmol/ml* ** (mean value), country: Germany125, *after 48 h after OTA-administration (also at other day intervals up to 56 days measured, lowest conc.: 85 pmol/ml after 56 days), **highest value recorded incidence: 3?/3*, sa. const.: female F344 rats, age: 8 weeks, contamination: no OTA (for detailed information please see the article), conc.: 4 pmol/ml** (mean value), country: Germany125, *control, **72 h after OTA-administration incidence: 3?/3, sa. const.: female F344 rats, age: 8 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: \leq 6,012 pmol/ml* ** (mean value), country: Germany125, *after 24 h after OTA-administration (also at other days up to 56 day intervals measured, lowest conc.: 89 pmol/ml after 56 days), **highest value recorded

incidence: 3/3 or more*, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: no OTA, conc.: nr, country: Japan¹⁴³, *control

incidence: ?/3–4, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 15 mg OTA (labeled)/kg, o., once), conc. range: ≈≤36.5 μg/ml* (mean value), country: Japan¹⁴³, *after 4 h (also at other hour intervals up to 40 h measured, lowest conc.: ≈13 μg/ml after 48 h)

incidence: 3?/3, sa. const.: healthy adult female Sprague-Dawley rats, wt.: 270–350 g, contamination: artificial (dose: 100 µg OTC!/rat, i.v., once), conc. range: ≈≤1,100 ng/ml (mean value), country: Canada¹⁷⁵, *after 120 min (also at other min intervals up to 300 min measured, lowest conc.: ≈400 ng/ml after 10 min)

incidence: 5?/5*, sa. const.: Sprague-Dawley rats (dams), wt.: 300-370 g, contamination: no OTA (for detailed information please see the article), conc.: 1.3 μg/l** (mean value), country: Sweden312, *control, **after 24 h (also measured after 72 h conc.: 1.1 µg/l) incidence: 4?/4, sa. const.: Sprague-Dawley rats (dams), wt.: 300-370 g, contamination: artificial (dose: 10 µg OTA/kg b. wt., o., once at 11th day of lactation; for detailed information please see the article), conc.: 28 µg/l* (mean value), country: Sweden³¹², *after 24 h (also measured after 72 h conc.: $8.5 \, \mu g/l$ incidence: 4?/4, sa. const.: Sprague-Dawley rats (dams), wt.: 300-370 g, contamination: artificial (dose: 50 µg OTA/kg b. wt., o., once at 11th day of lactation; for detailed information please see the article), conc.: 120 μg/l* (mean value), country: Sweden312, *after 24 h (also measured after 72 h conc.: 36 µg/l) incidence: 5?/5, sa. const.: Sprague-Dawley rats (dams), wt.: 300-370 g, contamination: artificial (dose: 250 µg OTA/kg b. wt., o., once at 11th day of lactation; for detailed information please see the article), conc.: 520 μg/l* (mean value), country: Sweden312, *after 24 h (also measured after 72 h conc.: 110 µg/l) incidence: 10?/10*, sa. const.: pups of Sprague-Dawley rats, wt.: 19-30 g, contamination: no OTA (for detailed information please see the article), conc.: 3.8 µg/l** (mean value), country: Sweden³¹², *control, **after 72 h incidence: 8?/8, sa. const.: pups of Sprague-Dawley rats, wt.: 19-30 g, contamination: artificial (dose: OTA from the milk of lactating dams receiving 10 µg OTA/kg b. wt.; for detailed information please see the article), conc.: 29 µg/l* (mean value), country: Sweden³¹², *after 72 h incidence: 8?/8, sa. const.: pups of Sprague-Dawley rats, wt.: 19-30 g, contamination: artificial (dose: OTA from the milk of lactating dams receiving 50 µg

OTA/kg b. wt.; for detailed information please see the article), conc.: 120 µg/l* (mean value), country: Sweden³¹², *after 72 h incidence: 8?/8, sa. const.: pups of Sprague-Dawley rats, wt.: 19–30 g, contamination: artificial (dose: OTA from the milk of lactating dams receiving 250 µg OTA/kg b. wt.; for detailed information please see the article), conc.: 480 µg/l* (mean value), country: Sweden³¹², *after 72 h

incidence: 4(8?)?/4(8)*, sa. const.: Sprague-Dawley rats (dams), contamination: no OTA (for detailed information please see the article), Ø conc.: 5.4 µg/l** (mean value), country: Sweden322, *control, **at day 14 of lactation incidence: 4(8?)?/4(8), sa. const.: Sprague-Dawley rats (dams), contamination: artificial (dose: 50 µg OTA/kg b. wt., gastric intubation, 46 times in 8 weeks; for detailed information please see the article), Ø conc.: 195 µg/l* (mean value), country: Sweden³²², *at day 14 of lactation incidence: 4(8?)?/4(8)*, sa. const.: Sprague-Dawley rats (dams), contamination: no OTA (for detailed information please see the article), Ø conc.: 3.3 µg/l** (mean value), country: Sweden³²², *control, **at day 21 of lactation incidence: 4(8?)?/4(8), sa. const.: Sprague-Dawley rats (dams), contamination: artificial (dose: 50 µg OTA/kg b. wt., gastric intubation, 46 times in 8 weeks; for detailed information please see the article), Ø conc.: 235 µg/l* (mean value), country: Sweden322, *at day 21 of lactation

incidence: 4?/4*, sa. const.: pups of Sprague-Dawley rats, contamination: no OTA (for detailed information please see the article), conc.: 11 µg/l** (mean value), country: Sweden³22, *control, **at day 14 incidence: 4?/4, sa. const.: pups of Sprague-Dawley rats, contamination: artificial (dose: infected by lactating dams

receiving 50 µg OTA/kg b. wt. by gastric intubation for 46 times (OTA-exposure of pups via placenta); for detailed information please see the article), conc.: 130 μg/l* (mean value), country: Sweden322, *at day 14 incidence: 4?/4, sa. const.: pups of Sprague-Dawley rats, contamination: artificial (dose: infected by lactating dams receiving 50 µg OTA/kg b. wt. by gastric intubation for 46 times (OTA-exposure of pups via milk); for detailed information please see the article), conc.: 640 µg/l* (mean value), country: Sweden³²², *at day 14 incidence: 4?/4, sa. const.: pups of Sprague-Dawley rats, contamination: artificial (dose: infected by lactating dams receiving 50 µg OTA/kg b. wt. by gastric intubation for 46 times (OTA-exposure of pups via milk and placenta); for detailed information please see the article), conc.: 860 μg/l* (mean value), country: Sweden322, *at day 14

Ochratoxin α

incidence: 3?/3*, sa. const.: male F344 rats, age: 8 weeks, contamination: no OTA (for detailed information please see the article), conc.: 2.23 pmol/ml** (mean value), country: Germany¹²⁵, *control, **72 h after OTAadministration incidence: 3?/3, sa. const.: male F344 rats, age: 8 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: ≤14.92 pmol/ml* ** (mean value), country: Germany¹²⁵, *24 h after OTA-administration (also at other day intervals up to 56 days measured, lowest conc.: 0.01 pmol/ml after 96 h), **highest value recorded incidence: 3?/3*, sa. const.: female F344 rats, age: 8 weeks, contamination: no OTA (for detailed information please see the article), conc.: 4.35 pmol/ml** (mean value), country: Germany125, *control, **72 h after OTAadministration

incidence: 3?/3, sa. const.: female F344 rats, age: 8 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: ≤10.11 pmol/ml* ** (mean value), country: Germany¹²⁵, *after 24 h after OTA-administration (also at other day intervals up to 56 days measured, lowest conc.: 3.16 pmol/ml after 48 h), **highest value recorded

OCHRATOXIN C

incidence: 3?/3, sa. const.: healthy adult female Sprague-Dawley rats, wt.: 270–350 g, contamination: artificial (dose: 100 µg OTC/rat, i.v., once), conc. range: ≈≤1,550 ng/ml (mean value), country: Canada¹⁷⁵, *after ≈5 min (also at other min intervals up to 300 min measured, lowest conc.: ≈ after 300 min)

ZEARALENONE

incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks, wt.:
230–290 g, contamination: artificial (dose:
1.13 mg ZEA/h/kg, i.v., for 6 h), conc.:
≈200 ng/ml* (mean value), country: Korea/
USA⁵⁸⁵, *after 6 h of ZEA-administration
incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks, wt.:
230–290 g, contamination: artificial (dose:
2.25 mg ZEA/h/kg, i.v., for 6 h), conc.:
≈350 ng/ml* (mean value), country:
Korea/USA⁵⁸⁵, *after 6 h of
ZEA-administration

Rat brain may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 4?/4, sa. const.: male albino Wistar rats, age: 6 weeks, contamination: artificial (dose: 289 µg OTA/kg per 24 h, gastric intubation, for 8 days), conc.: 114 ng/g* structure** (mean value), country: France/South Africa³⁶⁸, *after 9 days (thereof 8 days with OTA-administration), **in *cerebellum* incidence: 4?/4, sa. const.: male albino Wistar rats, age: 6 weeks, contamination:

artificial (dose: 289 μg OTA/kg per 24 h, gastric intubation, for 8 days), conc.: 27.2 ng/g* structure** (mean value), country: France/South Africa³⁶⁸, *after 9 days (thereof 8 days with OTA-administration), **in *hippocampus* incidence: 4/4, sa. const.: male albino Wistar rats, age: 6 weeks, contamination: artificial (289 μg OTA/kg per 24 h, gastric intubation, for 8 days), conc.: 18.8 ng/g* structure** (mean value), country: France/South Africa³⁶⁸, *after 9 days (thereof 8 days with OTA-administration), **in *striatum*

incidence: 4?/4, sa. const.: male albino Wistar rats, age: 6 weeks, contamination: artificial (dose: 289 µg OTA/kg per 24 h, gastric intubation, for 8 days), conc.: 17.2 ng/g* structure** (mean value), country: France/South Africa³⁶⁸, *after 9 days (thereof 8 days with OTA-administration), **in *ventral mesencethalon*

incidence: 4?/4, sa. const.: male albino Wistar rats, age: 6 weeks, contamination: artificial (dose: 289 µg OTA/kg per 24 h, gastric intubation, for 8 days), conc.: 47.3 ng/g* structure** (mean value), country: France/South Africa³⁶⁸, *after 9 days (thereof 8 days with OTA-administration), **in rest of brain

ZEARALENONE

incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks, wt.:
230–290 g, contamination: artificial
(dose: 1.13 mg ZEA/h/kg, i.v., for 6 h),
conc.: ≈200 ng/g* (mean value), country:
Korea/USA⁵⁸⁵, *after 6 h of
ZEA-administration
incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks,
wt.: 230–290 g, contamination: artificial
(dose: 2.25 mg ZEA/h/kg, i.v., for 6 h),
conc.: ≈300 ng/g* (mean value), country:
Korea/USA⁵⁸⁵, *after 6 h of ZEAadministration

Rat colon may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/3 or more*, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: no OTA, conc.: nr, country: Japan¹⁴³, *control incidence: ?/3–4, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 15 mg OTA (labeled)/kg, o., once), conc. range: ≈≤4 µg/g wet weight of tissue* (mean value), country: Japan¹⁴³, *after 16 h (also at other hour intervals up to 24 h measured, lowest conc.: ≈1 µg/g wet weight of tissue after 24 h)

incidence: 3?/3, sa. const.: male Wistar rats, age: 8–10 weeks, contamination: artificial (dose: 1.4 mg OTA/kg, injected into the femoral vein, once; for detailed information please see the article), conc.: 122.8 ng/g/10 min* (mean value), country: Japan¹⁷⁴, *in colon perfusate

Rat duodenum may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/3 or more*, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: no OTA, conc.: nr, country: Japan¹⁴³, *control incidence: ?/3–4, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 15 mg OTA (labeled)/kg, o., once), conc. range: $\approx \le 7 \mu g/g$ wet weight of tissue* (mean value), country: Japan¹⁴³, *after 1 h (also at other hour intervals up to 24 h measured, lowest conc.: $\approx 1 \mu g/g$ wet weight of tissue after 24 h)

Rat fat may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 1.13 mg ZEA/h/kg, i.v., for 6 h), conc.: ≈600 ng/g* ** (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEA-administration, **in adipose tissue incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 2.25 mg ZEA/h/kg, i.v., for 6 h), conc.: ≈1,000 ng/g* ** (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEA-administration, **in adipose tissue

Rat feces may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 3/3*, sa. const.: male adult Long-Evans rats, wt.: 270–320 g, contamination: no AFB₁, conc.: nd, country: Taiwan, Republic of China¹³², *control

*control incidence: 2/2, sa. const.: male adult Long-Evans rats, wt.: 270–320 g, contamination: artificial (dose: **5.0 mg** AFB₁/kg b. wt., i.p., once), conc. range: 0.65–1.16 mg × 10^{-3*}, Ø conc.: 0.905 mg × 10^{-3*}, country: Taiwan, Republic of China¹³², *after 24 h (also measured after 48 and 72 h, but conc.: nd) incidence: 1/1, sa. const.: male adult Long-Evans rat, wt.: 270–320 g, contamination: artificial (dose: **5.5 mg** AFB₁/kg b. wt., i.p., once), conc.: 1.41 mg × 10^{-3*}, country: Taiwan, Republic of China¹³², *after 24 h (also measured after 48 and 72 h, but conc.: nd)

incidence: ?/5–6, sa. const.: male African giant rats, wt.: 1.5–2.0 kg, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 45 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

incidence: ?/5-6, sa. const.: male weanling Wistar-derived rats, wt.: 250 g, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 48 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

AFLATOXIN M,

incidence: ?/5–6, sa. const.: male African giant rats, wt.: 1.5–2.0 kg, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 42 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

incidence: ?/5–6, sa. const.: male weanling Wistar-derived rats, wt.: 250 g, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 34 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

AFLATOXIN Q,

incidence: ?/5–6, sa. const.: male African giant rats, wt.: 1.5–2.0 kg, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 200 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

incidence: ?/5–6, sa. const.: male weanling Wistar-derived rats, wt.: 250 g, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 139 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

AFLATOXINS

incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (dust-adsorbed), once; for detailed information please see the article), conc.: $\approx \le 12.4$ nmol AFs/day*, country: USA604, *after 1 day (also at other day intervals up to 21 days measured, lowest conc.: nd after 13 days) incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (microcrystalline form), once; for detailed information please see the article), conc.: ≈≤11.3 nmol AFs/day*, country: USA604, *after 1 day (also at other day intervals up to 21 days measured, lowest conc.: nd after 13 days)

Fumonisin B_1 incidence: ?/5, sa. const.: rats, contamination: artificial (dose: 1,000 µg FB₁/g, o., once; for detailed information please see the article), conc.: 530 µg/g (mean value), country: USA²⁷⁶

Hydrolyzed Fumonisin B_1 incidence: ?/5, sa. const.: rats, contamination: artificial (dose: 1,000 µg FB_1/g , o., once; for detailed information please see the article), conc.: $282 \mu g/g$ (mean value), country: USA²⁷⁶

OCHRATOXIN A

incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: no OTA, diet B-II (for detailed information please see the article), conc.: nd, country: Canada²⁰⁹, *control incidence: ?/10, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily for 6 days (diet B-I); for detailed information please see the article), conc.: pr*, country: Canada²⁰⁹, *measured at day 1, 2, 3, 4, 5, and 6? of OTA-administration incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: no OTA, diet NMB (for detailed information please see the article), conc.: nd, country: Canada²⁰⁹, *control incidence: 6?,9?/6,9, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily for 6 days (diet NMB+T); for detailed information please see the article), conc. range: ≤32 μg/rat/day* (mean value), country: Canada²⁰⁹, *measured on day 2 and 5 of OTA-administration (also measured at day 1, 3, 4, and 6, lowest conc.:

incidence: 2(4)/2(4)*, sa. const.: Sprague-Dawley male rats, wt.: ≈100 g, contamination: no OTA, conc.: nr, country: USA²¹⁸, *control incidence: ?/2, sa. const.: Sprague-Dawley male rats, wt.: ≈100 g, contamination: artificial (dose: 1 mg OTA (labeled)/rat, i.p., once), conc.: 133 µg* OTA content

4.3 μg/rat/day on day 1)

(mean value), country: USA²¹⁸, *after 24 h (also measured after 8 h conc.: 64 µg OTA)

incidence: ?/12*, sa. const.: male Wistar/AF

EOPS rats, wt.: 240-290 g, contamination: no OTA only basal feed; for detailed information please see the article), conc. range: $\leq 3.2 \text{ ng/g**}$ (mean value), country: Belgium⁵⁰⁹, *control, **after 4 weeks of OTA-administration (also measured after 1 week conc.: 1.4 ng/g) incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240-290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat (2.2 µg/g), o., for 28 days; for detailed information please see the article), conc. range: ≤16,751 ng/g* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration (also measured after 1 week conc.: 12,505 ng/g) incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240-290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat (2.2 µg/g) + MWF (2%), o., for 28 days; for detailed information please see the article), conc. range: ≤25,451 ng/g* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of

incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240–290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat (2 μ g/g) + MWF (1.8%) + YCW (0.2%), o., for 28 days; for detailed information please see the article), conc. range: \leq 22,501 ng/g* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration (also measured after 1 week conc.: 15,102 ng/g)

OTA-administration (also measured after

1 week conc.: 17,532 ng/g)

OCHRATOXIN (C.

incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83–110 g, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Canada²⁰⁹, *control

incidence: ?/10, sa. const.: Wistar male rats, wt.: 83–110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily for 6 days (diet B-I); for detailed information please see the article), conc.: pr*, country: Canada²09, *measured at day 1, 2, 3, 4, 5, and 6? of OTA-administration incidence: ?/?, sa. const.: Wistar male rats, wt.: 83–110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily for 6 days (diet NMB+T); for detailed information please see the article), conc. range: ≤10 µg/rat/day (mean value), country: Canada²09, no statement when found

incidence: ?/?*, sa. const.: Sprague-Dawley male rats, wt.: ≈100 g, contamination: no OTA, conc.: nr, country: USA²¹⁸, *control incidence: ?/?, sa. const.: Sprague-Dawley male rats, wt.: ≈100 g, contamination: artificial (dose: 1 mg OTA, i.p., once), conc.: pr*, country: USA²¹⁸, *after 24 h?

Rat fetal extracts may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 4/4*, sa. const.: sexually mature, nulliparous, outbred Sprague-Dawley rats, wt.: 200–225 g, contamination: no OTA, conc.: nr, country: USA¹8¹, *control incidence: 4?/4, sa. const.: sexually mature, nulliparous, outbred Sprague-Dawley rats, wt.: 200–225 g, contamination: artificial (dose: 2.5 mg OTA/kg, s.c., once on day 12 of gestation), Ø conc.: ≤64.2 ng/g* (mean value), country: USA¹8¹, *after 48 h (also measured after 12, 24, and 72 h, lowest conc.: 20.2 ng/g after 12 h)

Rat heart may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 3/3 or more*, sa. const.: adult male Wistar rats, wt.: 200–250 g,

contamination: no OTA, conc.: nr, country: Japan¹⁴³, *control incidence: ?/3–4, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 15 mg OTA (labeled)/kg, o., once), conc. range: ≈4.5 µg/g wet weight of tissue* (mean value), country: Japan¹⁴³, *after 4 h (also at other hour intervals up to 40 h measured, lowest conc.: ≈2.5 µg/g wet weight of tissue after 8 h)

incidence: 4?/4, sa. const.: healthy adult female Sprague-Dawley rats, wt.: 270–350 g, contamination: artificial (dose: 100 µg OTA/rat, i.v.., once), conc. range: ≤290 ng/g (mean value), country: Canada¹⁷⁵, measured at 2, 24, 48, and 96 h incidence: 4?/4, sa. const.: healthy adult female Sprague-Dawley rats, wt.: 270–350 g, contamination: artificial (dose: 100 µg OTC!/rat, i.v., once), conc. range: ≤275 ng/g (mean value), country: Canada¹⁷⁵, measured at 2, 24, 48, and 96 h

ZEARALENONE

incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks, wt.:
230–290 g, contamination: artificial (dose:
1.13 mg ZEA/h/kg, i.v., for 6 h), conc.:
≈200 ng/g* (mean value), country: Korea/
USA⁵⁸⁵, *after 6 h of ZEA-administration
incidence: ?/?, sa. const.: male SpragueDawley rats, age: 8–10 weeks, wt.: 230–
290 g, contamination: artificial (dose:
2.25 mg ZEA/h/kg, i.v., for 6 h), conc.:
≈350 ng/g* (mean value), country: Korea/
USA⁵⁸⁵, *after 6 h of ZEA-administration

Rat ileum may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 3/3 or more*, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: no OTA, conc.: nr, country: Japan¹⁴³, *control incidence: ?/3–4, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 15 mg

OTA (labeled)/kg, o., once), conc. range: $\approx \le 2.5 \,\mu\text{g/g}$ wet weight of tissue* (mean value), country: Japan¹⁴³, *after 16 h (also at other hour intervals up to 24 h measured, lowest conc.: $\approx 1 \,\mu\text{g/g}$ wet weight of tissue after 24 h)

Rat intestine may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks,
wt.: 230–290 g, contamination: artificial
(dose: 1.13 mg ZEA/h/kg, i.v., for 6 h),
conc.: ≈7,000 ng/g* ** (mean value),
country: Korea/USA⁵⁸⁵, *after 6 h, **in
small intestine
incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks, wt.:
230–290 g, contamination: artificial (dose:
2.25 mg ZEA/h/kg, i.v., for 6 h), conc.:
≈11,000 ng/g* ** (mean value), country:
Korea/USA⁵⁸⁵, *after 6 h, **in small intestine

Rat kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/3-6*, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB, (labeled)/kg, i.p., once), conc.: 2.8 nmol AFB₁/g tissue** (mean value), country: USA34, *control, **after 2 h, for detailed information please see the article incidence: ?/3-6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB, (labeled)/kg, i.p., once), conc.: 1.5 nmol AFB₁/g tissue* ** (mean value), country: USA34, *after 2 h, **BHA-diet (0.45%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article incidence: ?/3-6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB, (labeled)/kg, i.p., once), conc.: 3.1 nmol AFB₁/g tissue* ** (mean value),

country: USA34, *after 2 h, **BHT-diet (0.45%) for 2 weeks prior to AFB,-treatment, for detailed information please see the article incidence: ?/3-6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB, (labeled)/kg, i.p., once), conc.: 0.9 nmol AFB₁/g tissue* ** (mean value), country: USA34, *after 2 h, **EQ-diet (0.5%) for 2 weeks prior to AFB,-treatment, for detailed information please see the article incidence: ?/3-6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB, (labeled)/kg, i.p., once), conc.: 2.2 nmol AFB,/g tissue* ** (mean value), country: USA34, *after 2 h, **oltipraz-diet (0.1%) for 2 weeks prior to AFB,-treatment, for detailed information please see the article

incidence: ?/3–6*, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 94 pmol AFB₁ bound/mg DNA** (mean value), country: USA³⁴, *control, **after 2 h, for detailed information please see the article

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 36 pmol AFB₁ bound/mg DNA* ** (mean value), country: USA³⁴, *after 2 h, **BHA-diet (0.45%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 61 pmol AFB₁ bound/mg DNA* ** (mean value), country: USA³⁴, *after 2 h, **BHT-diet (0.45%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 19 pmol AFB₁ bound/mg DNA* ** (mean value), country: USA³⁴, *after 2 h,

**EQ-diet (0.5%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 34 pmol AFB₁ bound/mg DNA* ** (mean value), country: USA³⁴, *after 2 h, **oltipraz-diet (0.1%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: 3/3, sa. const.: CD rats, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: nd* ** ***, country: USA/Taiwan, Republic of China49, *after 2 h, **AFB, -DNA adducts, ***measured by scintillation counting incidence: 3/3, sa. const.: CD rats, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: nd* ** ***, country: USA/Taiwan, Republic of China49, *after 2 h, **AFB, -FAPy adducts, ***measured by ELISA incidence: 3?/3, sa. const.: CD rats, contamination: artificial (1 mg AFB, (labeled)/kg, i.p., once), conc.: 5.4 μmol/ mol DNA* ** *** (mean value), country: USA/Taiwan, Republic of China49, *after 2 h, **AFB,-DNA adducts, ***measured by scintillation counting incidence: 3/3, sa. const.: CD rats, contamination: artificial (1 mg AFB, (labeled)/kg, i.p., once), conc.: nd* ** ***, country: USA/Taiwan, Republic of China49, *after 2 h, **AFB, -FAPy adducts, ***measured by ELISA

incidence: 3?/3*, sa. const.: male Wistar rats, wt.: 250–300 g, contamination: artificial (dose: 40 μg AFB₁ (labeled)/100 g, i.p., once; for detailed information please see the article), conc.: 14 ng [¹⁴C]AFB₁ bound/mg kidney DNA** (mean value), country: UK⁷⁴, *control, **after 6 h incidence: 3?/3*, sa. const.: male Wistar rats, wt.: 250–300 g, contamination: artificial (dose: 40 μg AFB₁ (labeled)/100 g, i.p., once; for detailed information please see the article), conc.:

9.0 ng [14C]AFB, bound/mg kidney DNA** (mean value), country: UK74, *receiving 1 mg PB/ml drinking water for 7 days prior to AFB,-treatment, **after 6 h incidence: 3?/3*, sa. const.: male Wistar rats, wt.: 250-300 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g, i.p., once; for detailed information please see the article), conc.: 27.0 ng [14C]AFB, bound/mg kidney rRNA** (mean value), country: UK74, *control, **after 6 h incidence: 3?/3*, sa. const.: male Wistar rats, wt.: 250-300 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g, i.p., once; for detailed information please see the article), conc.: 16.0 ng [14C]AFB, bound/mg kidney rRNA** (mean value), country: UK74, *receiving 1 mg PB/ml drinking water for 7 days prior to AFB₁-treatment, **after 6 h

incidence: 3?/3*, sa. const.: male Wistar rats, wt.: 250–300 g, contamination: artificial (dose: 40 μg AFB₁ (labeled)/100 g, i.p., once; for detailed information please see the article), conc.: 1.0 ng [¹⁴C]AFB₁ bound/**mg kidney protein**** (mean value), country: UK⁷⁴, *control, **after 6 h

incidence: 3?/3*, sa. const.: male Wistar rats, wt.: 250-300 g, contamination: artificial (dose: $40~\mu g$ AFB $_1$ (labeled)/100~g, i.p., once; for detailed information please see the article), conc.: 1.0~ng [^{14}C]AFB $_1$ bound/mg kidney protein** (mean value), country: UK 74 , *receiving 1 mg PB/ml drinking water for 7 days prior to AFB $_1$ -treatment, **after 6 h

incidence: 3?/3, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: $60 \mu g AFB_1$ (labeled)/100 g, i.p., once; for detailed information please see the article), conc. range: $\approx \le 11 \text{ ng AFB}_1$ bound/mg DNA* (mean value), country: USA 116 , *after $\approx 2 \text{ h}$ (also measured after $\approx 4, 24$, and 48 h, lowest conc.: $\approx 2 \text{ ng AFB}_1$ bound/mg DNA after 48 h)

incidence: 3?/3, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: $60 \mu g AFB_1$ (labeled)/100 g, i.p., once; for detailed information please see the article), conc. range: $\approx \le 4$ ng AFB_1 bound/mg protein* (mean value), country: USA^{116} , *after ≈ 4 h (also measured after ≈ 2 , 24, and 48 h, lowest conc.: \approx nd after 48 h)

incidence: ?/8*, sa. const.: male Fischer rats, wt.: 80-100 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g b. wt., i.p., once; for detailed information please see the article), conc.: 4.0 AFB, -DNA binding pmol/mg DNA** (mean value), country: USA556, *control, **after 2 h incidence: ?/8, sa. const.: male Fischer rats, weight: 80-100 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g b. wt., i.p., once, and pretreatment with .-BSO (conc.: 4 mmol, 4 and 2 h before AFB,-injection; for detailed information please see the article), conc.: 6.0 AFB,-DNA binding pmol/mg DNA* (mean value), country: USA556, *after 2 h incidence: ?/8, sa. const.: male Fischer rats, weight: 80-100 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g b. wt., i.p., once and pretreatment with DEM (conc.: 3.5 mmol, 4 h before AFB, injection) + ₁-BSO (conc.: 4 mmol, 2 h before AFB,-injection); for detailed information please see the article), conc.: 7.4 AFB,-DNA binding pmol/mg DNA* (mean value), country: USA556, *after 2 h

incidence: 2?/2*, sa. const.: male Fischer rats, wt.: 60-100 g, contamination: artificial (dose: 1 mg AFB $_1$ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 12.2 pg AFB $_1$ /µg DNA* ** (mean value), country: UK/ Scotland, UK 563 , *control: EQ-diet (0.5%, v/w) for 0 days prior to AFB $_1$ -treatment, **after 2 h

incidence: 2?/2*, sa. const.: male Fischer rats, wt.: 60–100 g, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once; for detailed information please

see the article), conc.: 5.4 pg AFB₁/µg DNA* ** (mean value), country: UK/ Scotland, UK⁵⁶³, ***EQ-diet** (0.5%, v/w) for **2 days** prior to AFB₁-treatment, **after 2 h

incidence: 2?/2*, sa. const.: male Fischer rats, wt.: 60–100 g, contamination: artificial (dose: 1 mg AFB $_1$ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 3.7 pg AFB $_1$ /µg DNA* ** (mean value), country: UK/Scotland, UK⁵⁶³, *EQ-diet (0.5%, v/w) for 14 days prior to AFB $_1$ -treatment, **after 2 h

incidence: 3?/3, sa. const.: male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 40 μ g AFB $_1$ (labeled)/100 g, i.p., once, conc. range: $\approx \le 17.5$ ng AFB $_1$ bound/ mg rRNA* (mean value), country: UK 608 , *after 2 h (also measured after 6, 24, and 48 h, lowest conc.: ≈ 5 ng AFB $_1$ bound/mg rRNA after 48 h)

incidence: 3?/3, sa. const.: male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 40 μ g AFB $_1$ (labeled)/100 g, i.p., once, conc. range: \approx 514 ng AFB $_1$ bound/mg DNA* (mean value), country: UK 608 , *after 6 h (also measured after 2, 24, and 48 h, lowest conc.: \approx 1 ng AFB $_1$ bound/mg DNA after 48 h)

incidence: 3?/3, sa. const.: male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 40 μg AFB₁ (labeled)/100 g, i.p., once, conc. range: ≈≤0.9 ng AFB₁ bound/**mg protein*** (mean value), country: UK⁶⁰⁸, *after 6 h (also measured after 2, 24, and 48 h, lowest conc.: nd after 48 h)

Aflatoxin G_1

incidence: 3?/3, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: 60 μ g AFG $_1$ (labeled)/100 g, i.p., once; for detailed information please see the article), conc. range: $\approx \le 5.5$ ng AFG $_1$ bound/mg DNA* (mean value), country: USA 116 , *after ≈ 2 h (also measured after ≈ 4 , 24, and 48 h, lowest conc.: ≈ 1 ng AFG $_1$ bound/mg DNA after 48 h)

incidence: 3?/3, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: $60 \mu g AFG_1$ (labeled)/100 g, i.p., once; for detailed information please see the article), conc. range: $\approx \le 5$ ng AFG_1 bound/mg protein* (mean value), country: USA¹¹⁶, *after ≈ 2 h (also measured after ≈ 4 , 24, and 48 h, lowest conc.: \approx nd after 48 h)

AFLATOXINS

incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (dust-adsorbed), once; for detailed information please see the article), conc.: ≤0.215 nmol AFs/g tissue (×10⁻³)*, country: USA⁶⁰⁴, *after 3 h (also measured after 3 days and 3 weeks, lowest conc.: 0.013 nmol AFs/g tissue $(\times 10^{-3})$ after 3 weeks) incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (microcrystalline form), once; for detailed information please see the article), conc.: ≤0.333 nmol AFs/g tissue ($\times 10^{-3}$)*, country: USA⁶⁰⁴, *after 3 h (also measured after 3 days and 3 weeks, lowest conc.: 0.009 nmol AFs/g tissue (×10⁻³) after 3 weeks)

HT-2 Toxin

incidence: ?/3, sa. const.: male Wistar rats, age: 8–10 weeks, contamination: artificial (dose: 2 or 5 mg T-2 toxin/kg b. wt., o., once), conc.: pr*, country: Japan³⁹¹, *after 30 min

OCHRATOXIN A

incidence: 3/3*, sa. const.: male F344 rats, age: 8 weeks, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Germany¹²⁵, *control

incidence: 3?/3, sa. const.: male F344 rats, age: 8 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., by gavage, once; for detailed information please see

the article), conc. range: ≤480 pmol/g* ** (mean value), country: Germany¹²⁵, *after 24 h after OTA-administration (also at other day intervals up to 56 days measured, lowest conc.: nd after 28 days), **highest value recorded incidence: 3/3*, sa. const.: female F344 rats, age: 8 weeks, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Germany125, *control incidence: 3?/3, sa. const.: female F344 rats, age: 8 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: ≈≤170 pmol/g* ** (mean value), country: Germany¹²⁵, *after 48 h (also at other day intervals up to 56 days measured, lowest conc.: nd after 28 days), **highest value recorded

incidence: ?/3 or more*, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: no OTA, conc.: nr, country: Japan¹43, *control incidence: ?/3–4, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 15 mg OTA (labeled)/kg, o., once), conc. range: \approx 8.0 µg/g wet weight of tissue* (mean value), country: Japan¹43, *after 4 h (also at other hour intervals up to 40 h measured, lowest conc.: \approx 2.5 µg/g wet weight of tissue after 8 h)

incidence: 4?/4, sa. const.: healthy adult female Sprague-Dawley rats, wt.: 270–350 g, contamination: artificial (dose: 100 µg OTA/rat, i.v., once), conc. range: ≤390 ng/g (mean value), country: Canada¹⁷⁵, measured at 2, 24, 48, and 96 h incidence: 4?/4 (overall16), sa. const.: healthy adult female Sprague-Dawley rats, wt.: 270–350 g, contamination: artificial (dose: 100 µg OTC!/rat, i.v., once), conc. range: ≤320 ng/g (mean value), country: Canada¹⁷⁵, measured at 2, 24, 48, and 96 h

incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83–110 g, contamination: no OTA, diet B-II (for detailed information

please see the article), conc.: nr, country: Canada²⁰⁹, *control incidence: ?/10, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily for 6 days (diet B-I); for detailed information please see the article), conc.: pr*, country: Canada²⁰⁹, *measured at day 1, 2, 3, 4, 5, and 6? of OTA-administration incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: no OTA, diet NMB (for detailed information please see the article), conc.: nr, country: Canada²⁰⁹, *control incidence: 3?/3, sa. const.: Wistar male rats, weight: 83–110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily, daily for 6 days (diet NMB+T); for detailed information please see the article), conc.: 6.2 µg/g* (mean value), country: Canada²⁰⁹, *measured on day 5 of OTA-administration (also measured at day 3 and 6)

incidence: ?/2 (10)*, sa. const.: Sprague-Dawley male rats, wt.: \approx 100 g, contamination: no OTA, conc.: nr, country: USA²¹⁸, *control incidence: ?/2, sa. const.: Sprague-Dawley male rats, wt.: \approx 100 g, contamination: artificial (dose: 1 mg OTA (labeled)/rat, i.p., once), conc. range: \le 13.6 µg/g tissue* (mean value), country: USA²¹⁸, *after 0.5 h (also measured after 2, 4, 8, and 24 h, lowest conc.: 3.18 µg/g tissue after 24 h)

incidence: 5?/5*, sa. const.:

Sprague-Dawley rats (dams),
wt.: 300–370 g, contamination: no OTA
(for detailed information please see the
article), conc.: 0.2 µg/kg** (mean value),
country: Sweden³¹², *control, **after 72 h
incidence: 4?/4, sa. const.: Sprague-Dawley
rats (dams), wt.: 300–370 g,
contamination: artificial (dose: 10 µg
OTA/kg b. wt., o., once at 11th day of
lactation; for detailed information please
see the article), conc.: 1.9 µg/kg* (mean
value), country: Sweden³¹², *after 72 h

incidence: 4?/4, sa. const.: Sprague-Dawley rats (dams), wt.: 300-370 g, contamination: artificial (dose: 50 µg OTA/kg b. wt., o., once at 11th day of lactation; for detailed information please see the article), conc.: 9.2 μg/kg* (mean value), country: Sweden312, *after 72 h incidence: 5?/5, sa. const.: Sprague-Dawley rats (dams), wt.: 300-370 g, contamination: artificial (dose: 250 μg OTA/kg b. wt., o., once at 11th day of lactation; for detailed information please see the article), conc.: 18 µg/kg* (mean value), country: Sweden312, *after 72 h incidence: 15?/15*, sa. const.: pups of Sprague-Dawley rats, wt.: 19-30 g, contamination: no OTA (for detailed information please see the article), conc.: 1.4 μg/kg** (mean value), country: Sweden³¹², *control, **after 72 h incidence: 12?/12, sa. const.: pups of Sprague-Dawley rats, wt.: 19-30 g, contamination: artificial (dose: OTA from the milk of lactating dams receiving 10 µg OTA/kg b. wt.; for detailed information please see the article), conc.: 7.2 µg/kg* (mean value), country: Sweden312, *after 72 h

incidence: 12?/12, sa. const.: pups of Sprague-Dawley rats, wt.: 19–30 g, contamination: artificial (dose: OTA from the milk of lactating dams receiving 50 µg OTA/kg b. wt.; for detailed information please see the article), conc.: 29 µg/kg* (mean value), country: Sweden³¹², *after 72 h

incidence: 15?/15, sa. const.: pups of Sprague-Dawley rats, wt.: 19–30 g, contamination: artificial (dose: OTA from the milk of lactating dams receiving 250 µg OTA/kg b. wt.; for detailed information please see the article), conc.: 110 µg/kg* (mean value), country: Sweden³¹², *after 72 h

incidence: 4(8?)?/4(8)*, sa. const.: Sprague-Dawley rats (dams), contamination: no OTA (for detailed information please see the article), Ø conc.: 0.7 µg/kg** (mean value), country: Sweden³²², *control, **at day 21 of lactation incidence: 4?(8?)/4(8), sa. const.: Sprague-Dawley rats (dams), contamination: artificial (dose: 50 µg OTA/kg b. wt., gastric intubation, 46 times in 8 weeks; for detailed information please see the article), Ø conc.: 48 μg/kg* (mean value), country: Sweden³²², *at day 21 of lactation incidence: 4?/4*, sa. const.: pups of Sprague-Dawley rats, contamination: no OTA (for detailed information please see the article), conc.: 4.0 µg/kg** (mean value), country: Sweden322, *control, **at day 14 incidence: 4?/4, sa. const.: pups of Sprague-Dawley rats, contamination: artificial (dose: infected by lactating dams receiving 50 μg OTA/kg b. wt., gastric intubation for 46 times (OTA-exposure of pups via placenta); for detailed information please see the article), conc.: 42 μg/kg* (mean value), country: Sweden322, *at day 14 incidence: 4?/4, sa. const.: pups of Sprague-Dawley rats, contamination: artificial (dose: infected by lactating dams receiving 50 µg OTA/kg b. wt., gastric intubation for 46 times (OTA-exposure of pups via milk); for detailed information please see the article), conc.: 180 µg/kg* (mean value), country: Sweden³²², *at day

incidence: 4?/4, sa. const.: pups of Sprague-Dawley rats, contamination: artificial (dose: infected by lactating dams receiving 50 µg OTA/kg b. wt., gastric intubation for 46 times (OTA-exposure of pups via milk and placenta); for detailed information please see the article), conc.: 240 µg/kg* (mean value), country: Sweden³²², *at day 14

incidence: 5/5*, sa. const.: male Fisher 344 (F344) rats, age: 10 weeks, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Spain⁴³⁹, *control incidence: 5/5, sa. const.: male Fisher 344 (F344) rats, age: 10 weeks,

Rat Rat

contamination: artificial (dose: 0.5 mg OTA/kg b. wt., o., daily for 7 days; for detailed information please see the article), conc. range: 641–807 µg/kg*, Ø conc.: 725.6 µg/kg*, country: Spain⁴³⁹, *after 24 h of final administration

incidence: ?/12*, sa. const.: male Wistar/AF EOPS rats, wt.: 240-290 g, contamination: no OTA only basal feed (for detailed information please see the article), conc.: 1.9 ng/g** (mean value), country: Belgium⁵⁰⁹, *control, **after 4 weeks incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240-290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat (2.2 µg/g), o., for 28 days; for detailed information please see the article), conc.: 79.4 ng/g* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240-290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat (2.2 µg/g) + MWF (2%), o., for 28 days; for detailed information please see the article), conc.: 57.1 ng/g* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240-290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat (2 µg/g) + MWF (1.8%) + YCW (0.2%), o., for 28 days; for detailed information please see the article), conc.: 66.7 ng/g* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration

incidence: ?/18*, sa. const.: male Wistar rats, age: 6 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., daily for 6 days), conc.: ≈1.2 µmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *cortex of kidney, **after 7 days of first OTA-administration incidence: ?/13*, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., daily for

6 days), conc.: 3.4 μmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *cortex of kidney, **after 7 days of first OTA-administration incidence: ?/13*, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 1.25 mg OTA/kg b. wt., i.p., once), conc.: ≈6.2 µmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *cortex of kidney, **after 2 h incidence: ?/14*, sa. const.: male Wistar rats, age: 6 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., daily for 6 days), conc.: 2.5 µmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *inner medulla of kidney, **after 7 days of first OTAadministration incidence: ?/13*, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., daily for 6 days), conc.: 4.1 μmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *inner medulla of kidney, **after 7 days of first OTA-administration incidence: ?/13*, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 1.25 mg OTA/kg b. wt., i.p., once), conc.: 11.7 µmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *inner medulla of kidney, **after 2 h incidence: ?/18*, sa. const.: male Wistar rats, age: 6 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., daily for 6 days), conc.: ≈1.35 µmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *outer medulla of kidney, **after 7 days of first OTA-administration incidence: ?/11*, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., daily for 6 days), conc.: ≈1.4 μmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *outer medulla of kidney, **after 7 days of first OTA-administration incidence: ?/11*, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 1.25 mg OTA/kg b. wt., i.p., once),

conc.: ≈5.7 µmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *outer medulla of kidney, **after 2 h incidence: ?/14*, sa. const.: male Wistar rats, age: 6 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., daily for 6 days), conc.: 4.3 µmol/kg kidney wet weight** (mean value), country: Germany561, *papilla of kidney, **after 7 days of first OTAadministration incidence: ?/3*, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., daily for 6 days), conc.: 3.4 μmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *papilla of kidney, *after 7 days of first OTA-administration incidence: ?/3*, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 1.25 mg OTA/kg b. wt., i.p., once), conc.: 11.3 µmol/kg kidney wet weight** (mean value), country: Germany⁵⁶¹, *papilla of kidney, **after 2 h

ZEARALENONE

incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks, wt.:
230–290 g, contamination: artificial (dose:
1.13 mg ZEA/h/kg, i.v., for 6 h), conc.:
≈1,100 ng/g* (mean value), country:
Korea/USA⁵⁸⁵, *after 6 h of
ZEA-administration
incidence: ?/?, sa. const.: male SpragueDawley rats, age: 8–10 weeks,
wt.: 230–290 g, contamination: artificial
(dose: 2.25 mg ZEA/h/kg, i.v., for 6 h),
conc.: ≈1,650 ng/g* (mean value), country:
Korea/USA⁵⁸⁵, *after 6 h of
ZEA-administration

Rat liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: ?/?*, sa. const.: male Sprague-Dawley, Wistar, and Fischer 344 rats, wt.: 80–140 g, contamination: no AFB₁, conc.: nr, country: France/Japan²⁴, *control

incidence: ?/?, sa. const.: male
Sprague-Dawley, Wistar, and Fischer
344 rats, wt.: 80–140 g, contamination:
artificial (dose: 20 µg AFB₁/kg/day, by
gavage, daily for up to 14 days), conc.
range: ≈≤2.0 pmol AFB₁-FAPy/mg DNA**
(mean value, combined data from the
three strains), country: France/Japan²⁴,
*animals killed after 24 h of final
treatment (also measured after 1, 3, and
7 days, lowest conc.: ≈0.4 pmol AFB₁-FAPy/
mg DNA after 1 day, combined data from
the three strains), **AFB₁-DNA adducts

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 9.0 nmol AFB₁/g tissue* ** (mean value), country: USA³⁴, *after 2 h, **control, for detailed information please see the article

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 4.3 nmol AFB₁/g tissue* ** (mean value), country: USA³⁴, *after 2 h, **BHA-diet (0.45%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 5.2 nmol AFB₁/g tissue* ** (mean value), country: USA³⁴, *after 2 h, **BHT-diet (0.45%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: ?/3-6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 3.3 nmol AFB₁ bond/g tissue* ** (mean value), country: USA³⁴, *after 2 h, **EQ-diet (0.5%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 4.5 nmol AFB₁/g tissue* ** (mean value),

country: USA³⁴, *after 2 h, ****oltipraz**-**diet** (0.1%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: ?/3-6*, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 859 pmol AFB₁ bound/mg DNA** (mean value), country: USA³⁴, *control, **after 2 h, for detailed information please see the article

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 304 pmol AFB₁ bound/mg DNA* ** (mean value), country: USA³⁴, *after 2 h, **BHA-diet (0.45%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 129 pmol AFB₁ bound/mg DNA* ** (mean value), country: USA³⁴, *after 2 h, **BHT-diet (0.45%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 77 pmol AFB₁ bound/mg DNA* ** (mean value), country: USA³⁴, *after 2 h, **EQ-diet (0.5%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: ?/3–6, sa. const.: weanling male F344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once), conc.: 202 pmol AFB₁ bound/mg DNA* ** (mean value), country: USA³⁴, *after 2 h, **oltipraz-diet (0.1%) for 2 weeks prior to AFB₁-treatment, for detailed information please see the article

incidence: 6?/6, sa. const.: male Fischer rats, age: 75 days, contamination: artificial (dose: **0.6 mg AFB**₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: 26*–22.000** pmol

AFB₁-N'-Gua/mg DNA x 10^{2*}, country: USA⁴², after 72* or 2** h after AFB₁-administration (also at other hour intervals up to 72 h measured) incidence: ?/30, sa. const.: male Fischer rats, age: 75 days, contamination: artificial (dose: 25 μg AFB₁ (labeled), i.p., ten times; for detailed information please see the article), conc. range: 13*–322** pmol AFB₁-N'-Gua/mg DNA x 10^{2*}, country: USA⁴², after 14* or 2** days (also at other day intervals up to 14 days measured, thereof 12 days with AFB₁-administration)

incidence: 3?/3, sa. const.: CD rats, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: 0.8 µmol/mol DNA* ** *** (mean value), country: USA/Taiwan, Republic of China⁴⁹, *after 2 h, **AFB, -DNA adducts, ***measured by scintillation counting incidence: 3/3, sa. const.: CD rats, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: nd* ** ***, country: USA/Taiwan, Republic of China49, *after 2 h, **AFB, -FAPy adducts, ***measured by ELISA incidence: 3?/3, sa. const.: CD rats, contamination: artificial (dose: 1 mg AFB, (labeled)/kg, i.p., once), conc.: 115.4 μmol/ mol DNA* ** *** (mean value), country: USA/Taiwan, Republic of China49, *after 2 h, **AFB, -DNA adducts, ***measured by scintillation counting incidence: 3/3, sa. const.: CD rats, contamination: artificial (dose: 1 mg AFB, (labeled)/kg, i.p., once), conc.: nd* ** ***, country: USA/Taiwan, Republic of China⁴⁹, *after 2 h, **AFB₁-FAPy adducts, ***measured by ELISA

incidence: 3?/3*, sa. const.: male Wistar rats, wt.: 250–300 g, contamination: artificial (dose: 40 µg AFB₁ (labeled)/100 g, i.p., once; for detailed information please see the article), conc.: 40.7 ng [¹⁴C] AFB₁ bound/mg liver DNA** (mean value), country: UK⁷⁴, *control, **after 6 h

rats, wt.: 250-300 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g, i.p., once; for detailed information please see the article), conc.: 11.0 ng [14C]AFB, bound/mg liver DNA** (mean value), country: UK74, *receiving 1 mg PB/ml drinking water for 7 days prior to AFB,-treatment, **after 6 h incidence: 3?/3*, sa. const.: male Wistar rats, weight: 250-300 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g, i.p., once; for detailed information please see the article), conc.: 44.8 ng [14C]AFB, bound/mg liver rRNA** (mean value), country: UK74, *control, **after 6 h incidence: 3?/3*, sa. const.: male Wistar rats, wt.: 250-300 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g, i.p., once; for detailed information please see the article), conc.: 9.0 ng [14C]AFB, bound/mg liver rRNA** (mean value), country: UK74, *receiving 1 mg PB/ml drinking water for 7 days prior to AFB,-treatment, **after 6 h incidence: 3?/3*, sa. const.: male Wistar rats, wt.: 250-300 g, contamination: artificial (dose: 40 μg AFB, (labeled)/100 g, i.p., once; for detailed information please see the article), conc.: 6.3 ng [14C]AFB, bound/mg liver protein** (mean value), country: UK⁷⁴, *control, **after 6 h incidence: 3?/3*, sa. const.: male Wistar rats, wt.: 250-300 g, contamination: artificial (dose: 40 µg AFB, (labeled)/100 g, i.p., once; for detailed information please see the article), conc.: 7.7 ng [14C] AFB, bound/mg liver protein** (mean value), country: UK74, *receiving 1 mg PB/ml drinking water for 7 days prior to AFB,-treatment, **after 6 h

incidence: 3?/3*, sa. const.: male Wistar

incidence: ?/?, sa. const.: male CDF Fischer rats, wt.: 100–150 g, contamination: artificial (dose: 0.01–1 mg AFB₁ (labeled)/ kg, i.p., once; for detailed information please see the article), conc. range: 1

AFB₁-residue/35,000, 251,000 or 1,355,000 nucleotides*, country: USA¹⁰³, *after 2 h

incidence: 4?/4, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: 60 µg AFB₁ (labeled)/100 g, i.p., once), conc.: 14.78 ng AFB₁ bound/mg* DNA** (mean value), country: USA¹¹⁶, *after 2 h, **phenol-cresol extraction incidence: 4?/4, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: 60 µg AFB₁ (labeled)/100 g, i.p., once), conc.: 13.03 ng AFB₁ bound/mg* DNA** (mean value), country: USA¹¹⁶, *after 2 h, **chloroform/isoamylalcohol extraction

incidence: 3?/3, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: 60 µg AFB, (labeled)/100 g, i.p., once), conc. range: $\approx \le 40.5$ ng AFB, bound/mg rRNA* (mean value), country: USA¹¹⁶, *after ≈2 h (also measured after ≈4, 24, and 48 h, lowest conc.: ≈18 ng AFB, bound/mg rRNA after 48 h) incidence: 3?/3, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: 60 µg AFB, (labeled)/100 g, i.p., once), conc. range: ≈≤15 ng AFB, bound/ mg DNA* (mean value), country: USA¹¹⁶, *after ≈2 h (also measured after ≈4, 24, and 48 h, lowest conc.: ≈2 ng AFB, bound/ mg DNA after 48 h) incidence: 3?/3, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: 60 μg AFB, (labeled)/100 g, i.p., once), conc. range: ≈≤1 ng AFB, bound/ mg protein* (mean value), country: USA¹¹⁶, *after 24 h (also measured after \approx 2, \approx 4, and 48 h, lowest conc.: \approx 1 ng AFB,

incidence: 3?/3, sa. const.: male F344 rats, wt.: 100-125 g, contamination: artificial (dose: $400 \mu g$ AFB $_1$ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: $6.56 \mu mol/mg$ DNA* ** (mean value), country: USA 142 , *after 24 h, **AFB $_1$ - N^7 -Gua

bound/mg protein after 48 h)

incidence: 4/4, sa. const.: male Wistar rats, wt.: 200–220 g, contamination: artificial (dose: 100 μ g AFB $_1$ (labeled)/kg, by gavage, once), conc. range: 4.26–13.55 pmol AFB $_1$ /mg DNA*, Ø conc.: 7.325 pmol AFB $_1$ /mg DNA* **, country: UK/Czechoslovakia $_1^{153}$, *after 24 h, **radioactivity

incidence: ?/?, sa. const.: male Fischer rats, wt.: 125–160 g, contamination: artificial (dose: 0.25–2.0 mg AFB₁ (labeled)/kg b. wt., injected, once), conc. range: 90–640 pmol AFB₁/mg DNA* (mean values), country: USA¹⁵⁴, *after 2 h incidence: ?/?, sa. const.: male Fischer rats, wt.: 125–160 g, contamination: artificial (dose: 0.25–2.0 mg AFB₁ (labeled)/kg b. wt., injected, once), conc. range: 420–3,240 pmol AFB₁/mg rDNA* (mean values), country: USA¹⁵⁴, *after 2 h

incidence: 2/2, sa. const.: male CDF Fischer rats, wt.: 130–150 g, contamination: artificial (dose: 1.0 or 0.1 mg AFB₁/kg b. wt., i.p., once), conc. range: 1 AFB₁ residue/30,000 or 250,000 nucleotides* **, country: USA¹⁵⁵, *after 2 h, **AFB₁-DNA adducts

incidence: 2?/2, sa. const.: male Fischer

rats, wt.: 130-150 g, contamination:

artificial (dose: 0.125 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc. range: 63,800-95,800 mmol DNA bases/ mmol AFB, $-N^7$ -Gua^{2*}, Ø conc.: 79,800 mmol DNA bases/mmol AFB,- N^7 -Gua^{2*}, country: USA¹⁷³, *after 2 h incidence: 2?/2, sa. const.: male Fischer rats, wt.: 130-150 g, contamination: artificial (dose: 0.25 mg AFB, (labeled)/ kg, i.p., once; for detailed information please see the article), conc. range: 30,700-35,300 mmol DNA bases/mmol AFB, $-N^7$ -Gua^{2*}, Ø conc.: 33,000 mmol DNA bases/mmol AFB, $-N^7$ -Gua^{2*}, country: USA173, *after 2 h

incidence: 2?/2, sa. const.: male Fischer

rats, wt.: 130–150 g, contamination:

artificial (dose: **0.50 mg** AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc. range: 25,440–28,680 mmol DNA bases/mmol AFB₁-N⁷-Gua^{2*}, Ø conc.: 27,060 mmol DNA bases/mmol AFB₁-N⁷-Gua^{2*}, country: USA¹⁷³, *after 2 h incidence: 2?/2, sa. const.: male Fischer rats, wt.: 130–150 g, contamination: artificial (dose: **1.00 mg** AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc. range: 8,400–9,400 mmol DNA bases/mmol AFB₁-N⁷-Gua^{2*}, Ø conc.: 8,900 mmol DNA bases/mmol AFB₁-N⁷-Gua^{2*}, country: USA¹⁷³, *after 2 h

incidence: 4?/4, sa. const.: lactating pregnant Sprague-Dawley rats, wt.: 300-450 g, contamination: artificial (dose: 2 μCi [14C]AFB, (labeled), i.p., once; for detailed information please see the article), conc.: 1.131 pmol AFB, eq/mg DNA* ** (mean value), country: USA183, *control, **after 6 h incidence: 4?/4, sa. const.: lactating pregnant Sprague-Dawley rats, wt.: 300–450 g, contamination: artificial (dose: 2 μCi [14C]AFB, (labeled), i.p., once; for detailed information please see the article), conc.: 0.465 pmol AFB, eq/mg DNA* ** (mean value), country: USA183, *after 6 h, **BHT-diet (0.5%) for 11–13 days prior to AFB,-treatment

incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95–140 g, contamination: artificial (dose: 100 µg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 4.65 pmol/mg DNA** *** (mean value), country: Canada⁴⁴⁵, *AFB₁ on day 1 and CMS-diet (composition please see the article) for up to 3 weeks, **after 2 h, ***total AFB₁-DNA adducts

incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95–140 g, contamination: artificial (dose: 100 µg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 7.07 pmol/mg DNA** *** (mean value),

country: Canada445, *AFB, on day 1 and CMD-diet (composition please see the article) for up to 3 weeks, **after 2 h, ***total AFB,-DNA adducts incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95-140 g, contamination: artificial (dose: 600 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 29.45 pmol/mg DNA** *** (mean value), country: Canada445, *AFB, on day 1 and CMS-diet (composition please see the article) for up to 3 weeks, **after 2 h, ***total AFB,-DNA adducts incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95-140 g, contamination: artificial (dose: 600 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 27.78 pmol/mg DNA** *** (mean value), country: Canada⁴⁴⁵, *AFB on day 1 and CMD-diet (composition please see the article) for up to 3 weeks, **after 2 h, ***total AFB,-DNA adducts incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95-140 g, contamination: artificial (dose: 100 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 33.11 pmol/ liver** *** (mean value), country: Canada⁴⁴⁵, *AFB, on day 1 and CMS-diet (composition please see the article) for up to 3 weeks, **after 2 h, ***total AFB,-DNA adducts

incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95–140 g, contamination: artificial (dose: 100 μg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 81.49 pmol/liver** *** (mean value), country: Canada445, *AFB, on day 1 and CMD-diet (composition please see the article) for up to 3 weeks, **after 2 h, ***total AFB, -DNA adducts incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95-140 g, contamination: artificial (dose: 600 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 817.15 pmol/liver** *** (mean values), country: Canada⁴⁴⁵, *AFB, on day 1 and CMS-diet (composition

please see the article) for up to 3 weeks, **after 2 h, ***total AFB, -DNA adducts incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95-140 g, contamination: artificial (dose: 600 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 420.26 pmol/liver** *** (mean values), country: Canada⁴⁴⁵, *AFB, on day 1 and CMD-diet (composition please see the article) for up to 3 weeks, **after 2 h, ***total AFB₁-DNA adducts incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95-140 g, contamination: artificial (dose: 100 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 15.18 pmol/ mg DNA** *** (mean value), country: Canada⁴⁴⁵, *CMS-diet (composition please see the article) for up to 3 weeks then AFB, on day 21, **after 2 h, ***total AFB,-DNA adducts

incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95–140 g, contamination: artificial (dose: 100 µg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 2.13 pmol/mg DNA** *** (mean value), country: Canada⁴⁴⁵, *CMD-diet (composition please see the article) for up to 3 weeks then AFB₁ on day 21, **after 2 h, ***total AFB₁-DNA adducts incidence: 3?/3*, sa. const.: male Fischer

rats, wt.: 95–140 g, contamination: artificial (dose: 600 µg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 89.61 pmol/mg DNA***** (mean value), country: Canada⁴⁴⁵, *CMS-diet (composition please see the article) for up to 3 weeks then AFB₁ on day 21, **after 2 h, ***total AFB₁-DNA adducts

incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95–140 g, contamination: artificial (dose: 600 μg AFB₁ (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 20.40 pmol/mg DNA** **** (mean value), country: Canada⁴⁴⁵, *CMD-diet (composition

please see the article) for up to 3 weeks then AFB, on day 21, **after 2 h, ***total AFB,-DNA adducts incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95-140 g, contamination: artificial (dose: 100 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 146.72 pmol/ liver** *** (mean value), country: Canada⁴⁴⁵, *CMS-diet (composition please see the article) for up to 3 weeks then AFB, on day 21, **after 2 h, ***total AFB₁-DNA adducts incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95-140 g, contamination: artificial (dose: 100 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 5.31 pmol/liver** *** (mean value), country: Canada445, *CMD-diet (composition please see the article) for up to 3 weeks then AFB, on day 21, **after 2 h, ***total AFB, -DNA adducts incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95-140 g, contamination: artificial (dose: 600 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 1,260.60 pmol/liver** *** (mean value), country: Canada445, *CMS-diet (composition please see the article) for up to 3 weeks then AFB, on day 21, **after 2 h, ***total AFB₁-DNA adducts incidence: 3?/3*, sa. const.: male Fischer rats, wt.: 95-140 g, contamination: artificial (dose: 600 µg AFB, (labeled)/kg b. wt., o., once; for detailed information please see the article), conc.: 84.64 pmol/ liver** *** (mean value), country: Canada⁴⁴⁵, *CMD-diet (composition please see the article) for up to 3 weeks then AFB, on day 21, **after 2 h, ***total AFB,-DNA adducts

incidence: ?/4-10*, sa. const.: male weanling Sprague-Dawley rats, contamination: artificial (dose: 1 mg AFB₁ (labeled and unlabeled)/kg, i.p., once), conc.: 19.2 ng/mg DNA** ***

(mean value), country: USA489, *fed diet 1 = adequate composition (for detailed information please see the article), **covalent AF-adducts, ***after 6 h incidence: ?/4-10*, sa. const.: male weanling Sprague-Dawley rats, contamination: artificial (dose: 1 mg AFB, (labeled and unlabeled)/kg, i.p., once), conc.: 15.6 ng/mg DNA** *** (mean value), country: USA489, *fed diet 2 = marginal deficiency of dietary lipotropes (for detailed information please see the article), **covalent AF-adducts, ***after 6 h incidence: ?/4-10*, sa. const.: male weanling Sprague-Dawley rats, contamination: artificial (dose: 1 mg AFB, (labeled and unlabeled)/kg, i.p., once), conc.: 45.7 ng/mg RNA** *** (mean value), country: USA489, *fed **diet 1** = adequate composition (for detailed information please see the article), **covalent AF-adducts, ***after 6 h incidence: ?/4-10*, sa. const.: male weanling Sprague-Dawley rats, contamination: artificial (dose: 1 mg AFB, (labeled and unlabeled)/kg, i.p., once), conc.: 37.0 ng/mg RNA** *** (mean value), country: USA489, *fed diet 2 = marginal deficiency of dietary lipotropes (for detailed information please see the article), **covalent AF-adducts, ***after 6 h incidence: ?/4-10*, sa. const.: male weanling Sprague-Dawley rats, contamination: artificial (dose: 1 mg AFB, (labeled and unlabeled)/kg, i.p., once), conc.: 3.3 ng/mg protein** *** (mean value), country: USA489, *fed diet 1 = adequate composition (for detailed information please see the article), **covalent AF-adducts, ***after 6 h incidence: ?/4-10*, sa. const.: male weanling Sprague-Dawley rats, contamination: artificial (dose: 1 mg AFB, (labeled and unlabeled)/kg, i.p., once), conc.: 3.2 ng/mg protein** *** (mean value), country: USA489, *fed diet 2 = marginal deficiency of dietary

lipotropes (for detailed information please see the article), **covalent AF-adducts, ***after 6 h

incidence: ?/4–6*, sa. const.: male Fischer 344 weanling rats, age: 20 days, wt.: 45–50 g, contamination: artificial (dose: 25 μ g AFB₁ (labeled and unlabeled), i.p., for 5 days a week over 2 weeks), conc. range: ≈≤27 pmol AF/mg DNA** *** (mean value), country: USA⁴⁹⁰, *control semi-purified diet 3 weeks prior to AFB₁-treatment, **after 2 h over 2 days and first and second dosing (for detailed information please see the article), ***AFB₁-DNA adducts

incidence: ?/4–6*, sa. const.: male Fischer 344 weanling rats, age: 20 days, wt.: 45–50 g, contamination: artificial (dose: 25 µg AFB₁ (labeled and unlabeled), i.p., for 5 days a week over 2 weeks), conc. range: ≈≤49 pmol AF/mg DNA** *** (mean value), country: USA⁴⁹⁰, *choline-deficient/methionine-low diet 3 weeks prior to AFB₁-treatment, **after 2 h of the second day and third

dosing (for detailed information please

see the article), ***AFB, -DNA adducts

incidence: 5?/5*, sa. const.: young male Fischer rats, wt.: 90–100 g, contamination: artificial (dose: 0.4 mg AFB₁ (labeled)/kg b. wt., i.p., once), conc.: 194 AFB₁-DNA binding pmol/mg DNA** (mean value), country: USA⁴⁹², *control (no pretreatment), **2 h after AFB₁-administration (receiving control diet for 2 weeks)

incidence: 5?/5, sa. const.: young male Fischer rats, wt.: 90–100 g, contamination: artificial (dose: 0.4 mg AFB₁ (labeled)/kg b. wt., i.p., once), conc.: 154 AFB₁-DNA binding pmol/mg DNA* ** (mean value), country: USA⁴⁹², *pretreated with **green tea** (0.5%) in drinking water for 2 weeks prior to AFB₁-treatment, **2 h after AFB₁-administration incidence: 5?/5, sa. const.: young male

Fischer rats, wt.: 90–100 g, contamination:

artificial (dose: 0.4 mg AFB, (labeled)/kg

b. wt., i.p., once), conc.: 280 AFB₁-DNA binding pmol/mg DNA* ** (mean value), country: USA⁴⁹², *control (no pretreatment), **2 h after AFB₁-administration (receiving control diet for 4 weeks) incidence: 5?/5, sa. const.: young male Fischer rats, wt.: 90–100 g, contamination: artificial (dose: 0.4 mg AFB₁ (labeled)/kg b. wt., i.p., once), conc.: 205 AFB₁-DNA binding pmol/mg DNA* ** (mean value), country: USA⁴⁹², *pretreated with green tea (0.5%) in drinking water for 4 weeks

prior to AFB,-treatment, **2 h after

AFB,-administration

incidence: ?/4*, sa. const.: young male F344 rats, wt.: 120-140 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., daily for 3 weeks), conc. range: ≤8.3 ng/mg DNA** *** (mean value), country: USA/People's Republic of China493, *control (for overall information please see the article), **AFB, -N7-Gua adducts, ***after 3 days while treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈2 ng/mg DNA after 9 days) incidence: ?/4, sa. const.: young male F344 rats, wt.: 120–140 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., daily for 3 weeks), conc.: ≈3.9 ng/mg DNA* ** *** **** (mean value), country: USA/ People's Republic of China493, *lycopene-treatment (100 mg/kg b. wt.) after each AFB₁-administration (for overall information please see the article), **AFB₁-N⁷-Gua adducts, ***after 3 days while treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈1.7 ng/mg DNA after 9 days), ****1 higher value (≈4.3 ng/mg DNA) on day 15 recorded

incidence: ?/6–8*, sa. const.: male Fischer 344 rats, age: 2 months, contamination: artificial (dose: 600 µg AFB₁ (labeled)/kg, i.p., once), conc.: 6.4 nmol AFB₁ (total) **bound to protein**** (mean value), country: USA⁵⁴⁸, *control, **after 3 h

incidence: ?/6-8*, sa. const.: male Fischer 344 rats, age: 2 months, contamination: artificial (dose: 600 µg AFB, (labeled)/kg, i.p., once), conc.: 11.8 nmol AFB, (total) bound to protein** (mean value), country: USA⁵⁴⁸, *DHEA-diet (0.8%) for 2 weeks prior to AFB,-treatment, **after 3 h incidence: ?/6-8*, sa. const.: male Fischer 344 rats, age: 2 months, contamination: artificial (dose: 600 µg AFB, (labeled)/kg, i.p., once), conc.: 116 pmol AFB, bound/mg DNA** (mean value), country: USA548, *control, **after 3 h incidence: ?/6-8*, sa. const.: male Fischer 344 rats, age: 2 months, contamination: artificial (dose: 600 µg AFB, (labeled)/kg, i.p., once), conc.: 40 pmol AFB, bound/mg DNA** (mean value), country: USA548, *DHEA-diet (0.8%) for 2 weeks prior to AFB,-treatment, **after 3 h incidence: ?/6-8*, sa. const.: male Fischer 344 rats, age: 2 months, contamination: artificial (dose: 600 µg AFB, (labeled)/kg, i.p., once), conc.: 1,707 pmol AFB, (total) **bound to DNA**** (mean value), country: USA548, *control, **after 3 h incidence: ?/6-8*, sa. const.: male Fischer 344 rats, age: 2 months, contamination: artificial (dose: 600 µg AFB, (labeled)/kg, i.p., once), conc.: 773 pmol AFB, (total) **bound to DNA**** (mean value), country: USA⁵⁴⁸, *DHEA-diet (0.8%) for 2 weeks prior to AFB,-treatment, **after 3 h incidence: ?/6-8*, sa. const.: male Fischer 344 rats, age: 2 months, contamination: artificial (dose: 600 µg AFB, (labeled)/kg, i.p., once), conc.: 54 pmol AFB₁-N⁷-Gua²/mg DNA** (mean value), country: USA548, *control, **after 3 h incidence: ?/6-8*, sa. const.: male Fischer 344 rats, age: 2 months, contamination: artificial (dose: 600 µg AFB, (labeled)/kg, i.p., once), conc.: 17 pmol AFB,-N7-Gua²/ mg DNA** (mean value), country: USA⁵⁴⁸, *DHEA-diet (0.8%) for 2 weeks prior to AFB₁-treatment, **after 3 h incidence: ?/6-8*, sa. const.: male Fischer 344 rats, age: 2 months, contamination: artificial (dose: 600 µg AFB, (labeled)/kg,

i.p. once), conc.: 44 pmol other AFB₁ adducts/mg DNA** (mean value), country: USA⁵⁴⁸, *control, **after 3 h incidence: ?/6-8*, sa. const.: male Fischer 344 rats, age: 2 months, contamination: artificial (dose: 600 µg AFB₁ (labeled)/kg, i.p., once), conc.: 18 pmol other AFB₁ adducts/mg DNA** (mean value), country: USA⁵⁴⁸, *DHEA-diet (0.8%) for 2 weeks prior to AFB₁-treatment, **after 3 h

incidence: ?/4*, sa. const.: male SPF Wistar rats, age: 24-27 days, contamination: artificial (dose: 2 mg AFB, (labeled)/kg b. wt., i.p., once), conc.: ≈245 pmol AFB,/mg DNA** (mean value), country: France⁵⁴⁹, *control, **after 2 h (for overall information please see the article) incidence: ?/4*, sa. const.: male SPF Wistar rats, age: 24-27 days, contamination: artificial (dose: 2 mg AFB, (labeled)/kg b. wt., i.p., once), conc.: ≈110 pmol AFB₁/mg DNA** (mean value), country: France⁵⁴⁹, *3-MC i.p. (20 mg/kg b. wt.) on the 3 days preceding sacrifice (3-MC was injected prior to AFB, -administration), **after 2 h (for overall information please see the article)

incidence: ?/4*, sa. const.: male SPF Wistar rats, age: 24–27 days, contamination: artificial (dose: 2 mg AFB $_1$ (labeled)/kg b. wt., i.p., once), conc.: \approx 125 pmol AFB $_1$ /mg DNA** (mean value), country: France⁵⁴⁹, *CX-diet (300 mg/kg) for 2 weeks prior to AFB $_1$ -administration, **after 2 h (for overall information please see the article)

incidence: ?/4*, sa. const.: male SPF Wistar rats, age: 24–27 days, contamination: artificial (dose: 2 mg AFB₁ (labeled)/kg b. wt., i.p., once), conc.: ≈100 pmol AFB₁/mg DNA** (mean value), country: France⁵⁴⁰, *AC-diet (300 mg/kg) for 2 weeks prior to AFB₁-administration, **after 2 h (for overall information please see the article) incidence: ?/4*, sa. const.: male SPF Wistar rats, age: 24–27 days, contamination: artificial (dose: 2 mg AFB₁ (labeled)/kg b.

wt., i.p., once), conc.: ≈290 pmol AFB₁/mg DNA** (mean value), country: France⁵⁴⁹, *BC-diet (300 mg/kg) for 2 weeks prior to AFB₁-administration, **after 2 h (for overall information please see the article)

incidence: ?/2*, sa. const.: male Sprague-Dawley rats, wt.: 125-150 g, contamination: artificial (dose: 5 µg AFB, (labeled)/kg, i.p., once), conc. range: ≈≤6.1 pmol AFB, bound/mg DNA** (mean value), country: USA550, *basal diet for the experimental period (2 weeks) prior to AFB,-treatment (for detailed information please see the article), **after 2 h (also measured after 6, 12, 24, and 48 h, lowest conc.: ≈1 pmol AFB, bound/ mg DNA after 24 h) incidence: ?/2*, sa. const.: male Sprague-Dawley rats, wt.: 125-150 g, contamination: artificial (dose: 5 µg AFB, (labeled)/kg, i.p., once), conc. range: ≈≤2.8 pmol AFB, bound/mg DNA** (mean value), country: USA⁵⁵⁰, *brussel sprouts (25% dry wt. of the diet) for 2 weeks prior to AFB,-treatment (for detailed information please see the article), **after 2 h (also measured after 6, 12, 24, and 48 h, lowest conc.: ≈0.2 AFB, pmol bound/mg DNA after 48 h) incidence: ?/2*, sa. const.: male Sprague-Dawley rats, wt.: 125-150 g, contamination: artificial (dose: 5 µg AFB, (labeled)/kg, i.g. by gavage, once), conc. range: ≈≤5.7 pmol AFB, bound/mg DNA** (mean value), country: USA550, *basal diet for the experimental period (2 weeks) prior to AFB,-treatment (for detailed information please see the article), **after 6 h (also measured after 2, 12, 24, and 48 h, lowest conc.: ≈0.5 AFB, pmol bound/mg DNA after 48 h) incidence: 1/1*, sa. const.: male Sprague-Dawley rats, wt.: 125-150 g, contamination: artificial (dose: 5 µg AFB, (labeled)/kg, i.g. by gavage, once), conc. range: ≈≤2.95 pmol AFB, bound/mg DNA(mean value), country: USA⁵⁵⁰, *brussel sprouts (25% dry wt. of the diet)

for 2 weeks prior to AFB₁-treatment (for detailed information please see the article), **after 2 h (also measured after 6, 12, 24, and 48 h, lowest conc.: ≈0.2 AFB₁ pmol bound/mg DNA after 48 h)

incidence: ?/3*, sa. const.: male

Sprague-Dawley rats, wt.: 125-150 g, contamination: artificial (dose: 3 µg AFB, (labeled)/kg, i.p., once), conc.: 1.50 pmol AFB, bound/mg hepatic DNA ** (mean value), country: USA⁵⁵⁰, *basal diet for the experimental period (2 weeks) prior to AFB,-treatment (for detailed information please see the article), **after 2 h incidence: ?/3*, sa. const.: male Sprague-Dawley rats, wt.: 125-150 g, contamination: artificial (dose: 3 µg AFB (labeled)/kg, i.p., once), conc.: 0.59 pmol AFB, bound/mg hepatic DNA** (mean value), country: USA550, *brussel sprouts (25% dry wt. of the diet) for 2 weeks prior to AFB₁-treatment (for detailed information please see the article), **after 2 h incidence: ?/3*, sa. const.: male Sprague-Dawley rats, wt.: 125-150 g, contamination: artificial (dose: 3 µg AFB, (labeled)/kg, i.p., once), conc.: 1.11 pmol AFB, bound/mg hepatic DNA** (mean value), country: USA550, *I3C-diet (250 ppm) for 2 weeks prior to AFB,-treatment (for detailed information please see the article), **after 2 h incidence: ?/3*, sa. const.: male Sprague-Dawley rats, wt.: 125–150 g, contamination: artificial (dose: 3 µg AFB, (labeled)/kg, i.p., once), conc.: 0.83 pmol AFB, bound/mg hepatic DNA** (mean value), country: USA550, *basal diet + PB (0.1%) in drinking water for 7 days prior to AFB₁-treatment (for detailed

incidence: ?/3*, sa. const.: male Sprague-Dawley rats, wt.: 125–150 g, contamination: artificial (dose: 3 µg AFB₁ (labeled)/kg, **i.g.** by gavage, once), conc.:

information please see the article),

**after 2 h

0.98 pmol AFB, bound/mg hepatic DNA** (mean value), country: USA550, *basal diet for the experimental period (2 weeks) prior to AFB,-treatment (for detailed information please see the article), **after 3 h incidence: ?/3*, sa. const.: male Sprague-Dawley rats, wt.: 125-150 g, contamination: artificial (dose: 3 µg AFB, (labeled)/kg, i.g. by gavage, once), conc.: 0.45 pmol AFB, bound/mg hepatic DNA** (mean value), country: USA550, *brussel sprouts (25% dry wt. of the diet) for 2 weeks prior to AFB,-treatment (for detailed information please see the article), **after 3 h incidence: ?/3*, sa. const.: male Sprague-Dawley rats, wt.: 125-150 g, contamination: artificial (dose: 3 µg AFB, (labeled)/kg, i.g. by gavage, once), conc.: 0.82 pmol AFB, bound/mg hepatic DNA** (mean value), country: USA550, *I3C-diet (250 ppm) for 2 weeks prior to AFB,-treatment (for detailed information please see the article), **after 3 h incidence: ?/3*, sa. const.: male Sprague-Dawley rats, wt.: 125-150 g, contamination: artificial (dose: 3 µg AFB, (labeled)/kg, i.g. by gavage, once), conc.: 0.37 pmol AFB, bound/mg hepatic DNA** (mean value), country: USA550, *basal diet + PB (0.1%) in drinking water for 7 days prior to AFB,-treatment (for detailed information please see the article), **after 3 h

incidence: 2?/2, sa. const.: male F344 rats, wt.: 75–100 g, contamination: artificial (dose: 250 µg AFB $_1$ (labeled)/kg b. wt., by gavage, 10 times at days 0–4 and 7–11), conc. range: \leq 14.4 pmol/mg DNA* ** *** (mean value), country: USA 551 , *control, **AFB- N^7 -FAPyr (minor), ***at day 3 of AFB $_1$ -administration (also at other day intervals up to 133 days measured, lowest conc.: nd after 77, 106, and 133 days) (for detailed information please see the article)

incidence: 2?/2, sa. const.: male F344 rats, wt.: 75–100 g, contamination: artificial

(dose: 250 μg AFB₁ (labeled)/kg b. wt., by gavage, 10 times at days 0–4 and 7–11), conc.: 2.0 pmol/mg DNA* ** ********* (mean value), country: USA⁵⁵¹, *EQ-diet (0.4%) for 3 weeks while AFB₁ was gavaged in the last 2 weeks, **AFB-N⁷-FAPyr (minor), ***at day 3 of AFB₁-administration (also at other day intervals up to 133 days measured, lowest conc.: nd after 49, 77, 106, and 133 days), ****several higher values up to 2.6 pmol/mg DNA were recorded

incidence: 2?/2, sa. const.: male F344 rats, wt.: 75–100 g, contamination: artificial (dose: 250 μ g AFB $_1$ (labeled)/kg b. wt., by gavage, 10 times at days 0–4 and 7–11), conc. range: \leq 57.8 pmol/mg DNA* ** *** (mean value), country: USA 551 , *control, **AFB-N'-FAPyr (major), ***at day 3 of AFB $_1$ -administration (also at other day intervals up to 133 days measured, lowest conc.: 0.1 pmol/mg DNA after 133 days) (for detailed information please see the article)

incidence: 2?/2, sa. const.: male F344 rats, wt.: 75–100 g, contamination: artificial (dose: 250 µg AFB₁ (labeled)/kg b. wt., by gavage, 10 times at days 0–4 and 7–11), conc.: 7.8 pmol/mg DNA* ** *** (mean value), country: USA⁵⁵¹, *EQ-diet (0.4%) for 3 weeks while AFB₁ was gavaged in the last 2 weeks, **AFB-N'-FAPyr (major), ***at day 3 of AFB₁-administration (also at other day intervals up to 133 days measured, lowest conc.: 0.1 pmol/mg DNA; ****several higher values up to 10.4 pmol/mg DNA are recorded (for detailed information please see the article)

incidence: 2?/2, sa. const.: male F344 rats, wt.: 75–100 g, contamination: artificial (dose: 250 μ g AFB $_1$ (labeled)/kg b. wt., by gavage, 10 times at days 0–4 and 7–11), conc. range: \leq 105.2 pmol/mg DNA****** (mean value), country: USA 551 , *control, **AFB- N^7 -Gua 3 , ***at day 1 of AFB $_1$ -administration (also at other day intervals up to 133 days measured, lowest

conc.: nd after 49, 77, 106, and 133 days) (for detailed information please see the article)

incidence: 2?/2, sa. const.: male F344 rats, wt.: 75–100 g, contamination: artificial (dose: 250 μ g AFB₁ (labeled)/kg b. wt., by gavage, 10 times at days 0–4 and 7–11), conc. range: ≤19.0 pmol/mg DNA* ** *** (mean value), country: USA⁵⁵¹, ***EQ-diet** (0.4%) for 3 weeks while AFB₁ was gavaged in the last 2 weeks, **AFB-N⁷-Gua³, ***at day 1 of AFB₁-administration (also at other day intervals up to 133 days measured, lowest conc.: nd after 49, 77, 106, and 133 days) (for detailed information please see the article)

incidence: 4?/4?, sa. const.: male Sprague-Dawley rats, wt.: 180-190 g, contamination: artificial (dose: 40 µg AFB, (unlabeled and labeled)/g b. wt., i.p., once; for detailed information please see the article), conc.: 29.8 pmol/mg DNA* ** *** (mean value), country: USA552, *control, **AFB,-DNA adducts, ***after 2 h incidence: 4?/4?, sa. const.: male Sprague-Dawley rats, wt.: 180-190 g, contamination: artificial (dose: 40 µg AFB, (unlabeled and labeled)/g b. wt., i.p., once; for detailed information please see the article), conc.: 8.6 pmol/mg DNA* ** *** (mean value), country: USA552, *PB-treatment (0.1%, in drinking water) for

incidence: ?/8*, sa. const.: male Fischer rats, wt.: $80{\text -}100$ g, contamination: artificial (dose: $40~\mu\text{g}$ AFB $_1$ (labeled)/100~g b. wt., i.p., once; for detailed information please see the article), conc.: $28.9~\text{AFB}_1{\text -}\text{DNA}$ binding pmol/mg DNA** (mean value), country: USA 556 , *control, **after 2 h incidence: ?/8, sa. const.: male Fischer rats, wt.: $80{\text -}100~\text{g}$, contamination: artificial (dose: $40~\mu\text{g}$ AFB $_1$ (labeled)/100~g b. wt., i.p., once and **pretreatment** with $_L$ -BSO (conc.: 4~mmol, 4~and 2 h before AFB $_1$ -injection; for detailed information

1 week, **AFB₁-DNA adducts, ***after 2 h

please see the article), conc.: 41.2

AFB₁-DNA binding pmol/mg DNA*
(mean value), country: USA⁵⁵⁶, *after 2 h
incidence: ?/8, sa. const.: male Fischer rats,
wt.: 80–100 g, contamination: artificial
(dose: 40 µg AFB₁ (labeled)/100 g b. wt.,
i.p., once and pretreatment with DEM
(conc.: 3.5 mmol, 4 h before AFB₁injection) + L-BSO (conc.: 4 mmol, 2 h
before AFB₁-injection); for detailed
information please see the article), conc.:
51.9 AFB₁-DNA binding pmol/mg DNA*
(mean value), country: USA⁵⁵⁶, *after 2 h

incidence: 2?/2*, sa. const.: male Fischer rats, wt.: 60-100 g, contamination: artificial (dose: 1 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 126.4 pg AFB₁/µg DNA* ** (mean value), country: UK/ Scotland, UK563, *control: EQ-diet (0.5%, v/w) for **0 days** prior to AFB,treatment, **after 2 h incidence: 2?/2*, sa. const.: male Fischer rats, wt.: 60-100 g, contamination: artificial (dose: 1 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 29.5 pg AFB,/µg DNA* ** (mean value), country: UK/ Scotland, UK563, *EQ-diet (0.5%, v/w) for 2 days prior to AFB,-treatment, **after 2 h

incidence: 2?/2*, sa. const.: male Fischer rats, wt.: 60–100 g, contamination: artificial (dose: 1 mg AFB $_{\rm l}$ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: 3.9 pg AFB $_{\rm l}$ /µg DNA* ** (mean value), country: UK/Scotland, UK 563 , *EQ-diet (0.5%, (v/w) for 14 days prior to AFB $_{\rm l}$ -treatment, **after 2 h

incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: ≈17 pmol AFB₁ exo-epoxide GSH/mg protein* ** (mean value), country: USA/Scotland, UK⁵⁶⁵, *control, **after 2 h

incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: ≈71 pmol AFB, exo-epoxide GSH/mg protein* ** (mean value), country: USA/Scotland, UK565, *I3C-diet (0.2%) for 1 week prior to AFB,-treatment, **after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: ≈24 pmol AFB, exo-epoxide GSH/mg protein* ** (mean value), country: USA/Scotland, UK565, *BNF-diet (0.04%) for 1 week prior to AFB,-treatment, **after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: ≈58 pmol AFB, exo-epoxide GSH/mg protein* ** (mean value), country: USA/Scotland, UK⁵⁶⁵, *I3C- (0.2%) + BNF-diet (0.04%) for 1 week prior to AFB,-treatment, **after 2 h

incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: ≈59 pmol AFB, endo-epoxide GSH/mg protein* ** (mean value), country: USA/Scotland, UK565, *control, **after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: ≈145 pmol AFB, endo-epoxide GSH/mg protein* ** (mean value), country: USA/Scotland, UK⁵⁶⁵, ***I3C-diet** (0.2%) for 1 week prior to AFB₁-treatment, **after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg,

i.p., once; for detailed information please see the article), conc.: ≈44 pmol AFB, endo-epoxide GSH/mg protein* ** (mean value), country: USA/Scotland, UK565, *BNF-diet (0.04%) for 1 week prior to AFB,-treatment, **after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once; for detailed information please see the article), conc.: ≈168 pmol AFB, endo-epoxide GSH/mg protein* ** (mean value), country: USA/Scotland, UK⁵⁶⁵, *I3C- (0.2%) + BNF-diet (0.04%) for 1 week prior to AFB,-treatment, **after 2 h

incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: ≈53 pmol AFB, eq/mg DNA* ** *** (mean value), country: USA/ Scotland, UK565, *control, **[3H]AFB,-DNA adducts, ***after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: ≈18 pmol AFB, eq/mg DNA* ** *** (mean value), country: USA/Scotland, UK565, *I3C-diet (0.2%) for 1 week prior to AFB,-treatment, **[3H] AFB₁-DNA adducts, ***after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: ≈28 pmol AFB, eq/mg DNA* ** *** (mean value), country: USA/ Scotland, UK565, *BNF-diet (0.04%) for 1 week prior to AFB,-treatment, **[3H]AFB,-DNA adducts, ***after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: ≈24 pmol AFB, eq/mg DNA* ** *** (mean value), country: USA/Scotland, UK565, *I3C- (0.2%) + BNF-diet (0.04%) for 1 week prior to AFB,-treatment, **[3H]AFB,-DNA adducts, ***after 2 h

rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: ≈85 nmol AFB, eq/g liver* ** (mean value), country: USA/ Scotland, UK565, *control, **after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: ≈35 nmol AFB, eq/g liver* ** (mean value), country: USA/Scotland, UK565, *I3C-diet (0.2%) for 1 week prior to AFB,-treatment, **after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: ≈39 nmol AFB, eq/g liver* ** (mean value), country: USA/Scotland, UK⁵⁶⁵, *BNF-diet (0.04%) for 1 week prior to AFB,-treatment, **after 2 h incidence: 3?/3, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, i.p., once), conc.: ≈40 nmol AFB, eq/g liver* **(mean value), country: USA/ Scotland, UK565, *I3C- (0.2%) + BNF-diet (0.04%) for 1 week prior to AFB,-treatment, **after 2 h

incidence: 3?/3, sa. const.: male Fischer

albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 μg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: nd* **, country: India⁵⁹⁴, *AFB₁-DNA adducts, **after 48 h while taking milk from their mother incidence: 3?/3, sa. const.: neonatal rats of albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 μg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: nd* ** ***, country: India594, *AFB,-DNA adducts, **after 48 h while taking milk from their mother, ***PB (80 mg/kg b. wt.) injected 3 days

prior to AFB,-administration

incidence: 3/3, sa. const.: neonatal rats of

incidence: 3?/3, sa. const.: neonatal rats of albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 µg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: 40 pmol AFB,/mg RNA* (mean value), country: India⁵⁹⁴, *after 48 h while taking milk from their mother incidence: 3?/3, sa. const.: neonatal rats of albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 µg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: 10 pmol AFB₁/mg RNA* ** (mean value), country: India594, *after 48 h while taking milk from their mother, **PB (80 mg/kg b. wt.) injected 3 days prior to AFB,-administration incidence: 3?/3, sa. const.: neonatal rats of albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 μg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: 52 pmol AFB₁/mg protein* (mean value), country: India⁵⁹⁴, *after 48 h while taking milk from their mother incidence: 3?/3, sa. const.: neonatal rats of albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 µg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: 23 pmol AFB₁/mg protein* ** (mean value), country: India⁵⁹⁴, *after 48 h while taking milk from their mother, **PB (80 mg/kg b. wt.) injected 3 days prior to AFB,-administration

incidence: 3?/3, sa. const.: male Wistar rats, wt.: 200-250 g, contamination: artificial (dose: $40 \mu g AFB_1$ (labeled)/100 g, i.p., once), conc. range: $\approx \le 44.5$ ng AFB_1 bound/mg rRNA* (mean value), country: UK^{608} , *after 6 h (also measured after 2, 24, and 48 h, lowest conc.: ≈ 10 ng AFB_1 bound/mg rRNA after 48 h) incidence: 3?/3, sa. const.: male Wistar rats, wt.: 200-250 g, contamination: artificial (dose: $40 \mu g AFB_1$ (labeled)/100 g, i.p., once, conc. range: $\approx \le 23$ ng AFB_1

bound/mg DNA* (mean value), country: UK 608 , *after 2 h (also measured after 6, 24, and 48 h, lowest conc.: \approx 1 ng AFB $_1$ bound/mg DNA after 48 h)

incidence: 3?/3, sa. const.: male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: $40 \mu g AFB_1$ (labeled)/100 g, i.p., once, conc. range: $\approx \le 4.5 \text{ ng } AFB_1$ bound/ mg protein* (mean value), country: UK⁶⁰⁸, *after 6 h (also measured after 2, 24, and 48 h, lowest conc.: $\approx 1 \text{ ng } AFB_1$ bound/mg protein after 48 h)

incidence: 2?/2, sa. const.: male CDF Fischer rats, wt.: 100-150 g, contamination: artificial (dose: 1 mg AFB $_1$ (labeled)/kg, i.p., once, conc. range: $\approx \le 13.5$ nmol AFB $_1$ residues/g liver* ** (mean value), country: USA 610 , *after ≈ 1 h (also measured after ≈ 2 , 12, and 36 h), **in liver homogenate

incidence: 2?/2, sa. const.: male CDF Fischer rats, wt.: 100-150 g, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg, i.p., once, conc. range: $\approx \le 0.95$ nmol AFB₁ residues/g liver* ** (mean value), country: USA⁶¹⁰, *after ≈ 1 h (also measured after ≈ 2 , 12, and 36 h), **in liver nuclei

incidence: 2?/2, sa. const.: male CDF Fischer rats, wt.: 100–150 g, contamination: artificial (dose: 1 mg AFB $_1$ (labeled)/kg, i.p., once, conc. range: $\approx \le 390$ pmol AFB $_1$ residues/mg DNA* (mean value), country: USA 610 , *after ≈ 0 h (also measured after ≈ 2 , 12, and 36 h) incidence: 2?/2, sa. const.: male CDF Fischer rats, wt.: 100–150 g, contamination: artificial (dose: 1 mg AFB $_1$ (labeled)/kg, i.p., once, conc. range: $\approx \le 30$ pmol AFB $_1$ residues/mg chromatin protein* (mean value), country: USA 610 , *after ≈ 0 h (also measured after ≈ 2 , 12, and 36 h)

incidence: 2?/2*, sa. const.: male F344 rats, wt.: 75-100 g, contamination: artificial (dose: $250 \mu g$ AFB₁ (labeled)/kg b. wt., by gavage, for 5 days a week for 2 weeks (days 0-4 and 7-11); for detailed

information please see the article), conc. range: ≈≤51 pmol AFB-N⁷-Gua³ adducts mg DNA** (mean value), country: USA⁶¹¹, *control, *2 days after AFB₁- administration (also at other day intervals up to 16 days measured, lowest conc.: ≈11 pmol AFB-N⁷-Gua³ adducts mg DNA after 10 days)

incidence: 2?/2, sa. const.: male F344 rats, wt.: 75–100 g, contamination: artificial (dose: 250 µg AFB₁ (labeled)/kg b. wt., by gavage, for 5 days a week for 2 weeks (days 0–4 and 7–11); for detailed information please see the article), conc. range: \approx 59.9 pmol AFB- N^7 -Gua³ adducts mg DNA* ** (mean value), country: USA⁶¹¹, *2 days after AFB₁-administration (also at other day intervals up to 16 days measured, lowest conc.: \approx 0.3 pmol AFB- N^7 -Gua³ adducts mg DNA after 12 days; control values always higher than 1,2-dithiole-3-thione values), **1,2-dithiole-3-thione-diet (0.03%)

1 week before and while AFB,-treatment

incidence: 3?/3, sa. const.: male

Sprague-Dawley rats, wt.: 150–260 g, contamination: artificial (dose: 0.6 mg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: $\approx \le 105$ pmol AFB₁/mg DNA*** (mean value), country: Germany⁶¹², *after 20 min (also measured after 24 and 72 h, lowest conc.: 55 pmol AFB₁/mg DNA after 72 h), **in **PC** incidence: 3?/3, sa. const.: male Sprague-Dawley rats, wt.: 150–260 g, contamination: artificial (dose: 0.6 mg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: $\approx \le 25$ pmol AFB₁/mg

incidence: 3?/3*, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: control diet for 41 weeks

Germany⁶¹², *after 20 min (also measured

after 24 and 72 h, lowest conc.: nd? after

DNA* ** (mean value), country:

24 h), **in NPC

then ≈5 µg AFB₁ (labeled)/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: ≈3.65 pmol [¹⁴C]AFB₁/mg DNA** (mean value), country: USA⁶¹⁵, *control, **after 6 h of receiving AFB₁ (labeled)

incidence: 3?/3, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: 0.5 ppb AFM., o., for 41 weeks then ≈5 μg AFB, (labeled)/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: ≈2.3 pmol [14C]AFB,/mg DNA* (mean value), country: USA615, *after 6 h of receiving AFB, (labeled) incidence: 3?/3, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: 50 ppb AFM,, o., for 41 weeks then ≈5 μg AFB, (labeled)/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: ≈2.25 pmol [14C]AFB,/mg DNA* (mean value), country: USA⁶¹⁵, *after 6 h of receiving AFB, (labeled) incidence: 3?/3, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: 50 ppb AFB,, o., for 41 weeks then ≈5 μg AFB, (labeled)/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: ≈1 pmol [14C]AFB,/mg DNA* (mean value), country: USA615, *after 6 h of receiving AFB, (labeled)

incidence: 3?/3*, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: control diet for 41 weeks then ≈5 μg [¹⁴C]AFB₁/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: ≈4.1 pmol [¹⁴C]AFB₁/mg RNA** (mean value), country: USA⁶¹⁵, *control, **after 6 h of receiving AFB₁ (labeled) incidence: 3?/3, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: 0.5 ppb AFM₁, o., for 41 weeks then ≈5 μg AFB₁ (labeled)/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.:

≈2.35 pmol [14C]AFB,/mg RNA* (mean value), country: USA615, *after 6 h of receiving AFB, (labeled) incidence: 3?/3, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: 50 ppb AFM,, o., for 41 weeks then ≈5 μg AFB, (labeled)/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: ≈3.2 pmol [14C]AFB₁/mg RNA* (mean value), country: USA615, *after 6 h of receiving AFB, (labeled) incidence: 3?/3, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: 50 ppb AFB,, o., for 41 weeks then ≈5 μg AFB, (labeled)/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: ≈1 pmol [¹4C]AFB,/mg RNA* (mean value), country: USA615, *after 6 h of receiving AFB, (labeled)

incidence: 3?/3*, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: control diet for 41 weeks then \approx 5 μg AFB $_1$ (labeled)/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: \approx 0.35 pmol [^{14}C]AFB $_1$ /mg protein** (mean value), country: USA 615 , *control, **after 6 h of receiving AFB $_1$ (labeled)

incidence: 3?/3, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: 0.5 ppb AFM,, o., for 41 weeks then ≈5 μg AFB, (labeled)/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: ≈0.3 pmol [14C]AFB₁/mg protein* (mean value), country: USA615, *after 6 h of receiving AFB, (labeled) incidence: 3?/3, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: 50 ppb AFM,, o., for 41 weeks then $\approx 5 \mu g [^{14}C]AFB$,/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: ≈0.3 pmol [14C]AFB,/mg protein* (mean value), country: USA615, *after 6 h of receiving AFB, (labeled)

incidence: 3?/3, sa. const.: weanling Fischer 344 rats, wt.: 50 g, contamination: artificial (dose: 50 ppb AFB₁, o., for 41 weeks then \approx 5 µg AFB₁ (labeled)/kg b. wt., o. by gavage, once; for detailed information please see the article), conc.: \approx 0.15 pmol [14 C]AFB₁/mg protein* (mean value), country: USA 615 , *after 6 h of receiving AFB₁ (labeled)

incidence: 4?/4*, sa. const.: male Sprague-Dawley rats, wt.: 275-325 g, contamination: artificial (dose: 0.25 mg AFB₁ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: ≈ 380 AFB adducts/ 10^7 DNA nucleotides** (mean value), country: USA⁶¹⁶, *control, **after 2 h

incidence: 4?/4, sa. const.: male Sprague-Dawley rats, wt.: 275–325 g, contamination: artificial (dose: 0.25 mg AFB $_1$ (labeled)/kg, i.p., once; for detailed information please see the article), conc.: \approx 71 AFB adducts/10 7 DNA nucleotides* ** (mean value), country: USA 616 , *BHA-diet (0.75%) for 10 days prior to AFB $_1$ -treatment, **after 2 h

incidence: 4?/4*, sa. const.: male F344 rats, age: 21 days, contamination: artificial (dose: 250 μ g AFB₁ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: \approx 55 pmol/ mg DNA** *** (mean value), country: USA⁶²¹, *control, **AFB-N⁷-Gua³, ***after 2 h

incidence: 4?/4, sa. const.: male F344 rats, age: 21 days, contamination: artificial (dose: 250 μ g AFB $_1$ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: \approx 12 pmol/mg DNA** *** (mean value), country: USA 621 , *oltipraz-diet (0.075%) for 7 days prior to AFB $_1$ -treatment, **AFB- N^7 -Gua³, ***after 2 h

incidence: 4?/4*, sa. const.: male F344 rats, age: 21 days, contamination: artificial (dose: 250 µg AFB₁ (labeled)/kg b. wt., by gavage, once; for detailed information

please see the article), conc.: ≈11.5 pmol/mg DNA** *** (mean value), country: USA⁶²¹, *control, **AFB-N⁷-Gua³, ***after 24 h

incidence: 4?/4, sa. const.: male F344 rats, age: 21 days, contamination: artificial (dose: 250 μ g AFB $_1$ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: \approx 4 pmol/mg DNA** *** (mean value), country: USA 621 , *oltipraz-diet (0.075%) for 7 days prior to AFB $_1$ -treatment, **AFB- N^7 -Gua 3 , ***after 24 h

Aflatoxin B_1 -8,9-Epoxide incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** μM AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: $\approx \le 340$ pmol AFB, -8,9-epoxide formed/min/mg protein** *** (mean value), country: USA624, *control, ***after 2 h incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** µM AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤340 pmol AFB, -8,9-epoxide formed/min/mg protein** *** (mean value), country: USA624, *BNF-diet (0.04%) for 7 days prior to AFB,-treatment, ***after 2 h incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** μM AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤600 pmol AFB, -8,9-epoxide formed/min/mg protein** *** (mean value), country: USA⁶²⁴, *I3C-diet (0.2%) for 7 days prior to AFB,-treatment, *** after 2 h incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** µM AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤700 pmol AFB₁-8,9-epoxide formed/min/mg protein** *** (mean

value), country: USA⁶²⁴, *I3C- (0.2%) + BNF-diet (0.04%) for 7 days prior to AFB,-treatment, ***after 2 h

2,3-Dihydro-2,3-Dihydroxyaflatoxin B, incidence: 6?/6, sa. const.: male Fischer rats, age: 75 days, contamination: artificial (dose: 0.6 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: 3*-60** pmol DIOL/mg DNA x 102*, country: USA42, after 72* or 2 h** after AFB,administration (also at other hour intervals up to 72 h measured) incidence: ?/30, sa. const.: male Fischer rats, age: 75 days, contamination: artificial (dose: 25 µg AFB, (labeled), i.p., 10 times; for detailed information please see the article), conc. range: 8*-30** pmol DIOL/ mg DNA x 102*, country: USA42, after 6* or 14** days (also at other day intervals up to 14 days measured, thereof 12 days with AFB, -administration)

8,9-Dihydro-8,9-Diydroxyaflatoxin B_1 incidence: 2?/2, sa. const.: male F344 rats, wt.: 75–100 g, contamination: artificial (dose: 250 μg AFB₁ (labeled)/kg b. wt., by gavage, 10 times at days 0–4 and 7–11), conc. range: ≤5.7 pmol/mg DNA* ** *** (mean value), country: USA⁵⁵¹, *control, **AFB₁ 8,9-dihydrodiol, ***at day 1 of AFB₁-administration (also at other day intervals up to 133 days measured, lowest conc.: nd after 49, 77, 106, and 133 days) (for detailed information please see the article)

incidence: 2?/2, sa. const.: male F344 rats, wt.: 75–100 g, contamination: artificial (dose: 250 µg AFB₁ (labeled)/kg b. wt., by gavage, 10 times at days 0–4 and 7–11), conc.: 0.6 pmol/mg DNA* ** ******** (mean value), country: USA⁵⁵¹, *EQ-diet (0.4%) for 3 weeks while AFB₁ was gavaged in the last 2 weeks, **AFB₁ 8,9-dihydrodiol, ***at day 9 of AFB₁-administration (also at other day intervals up to 133 days measured, lowest conc.: nd after 49, 77, 106, and 133 days), ****several higher values up to 1.0 pmol/

mg DNA were recorded (for detailed information please see the article)

AFLATOXIN G,

incidence: 4?/4, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: 60 µg AFG₁ (labeled)/100 g, i.p., once), conc.: 6.89 ng AFG₁ bound/mg* DNA** (mean value), country: USA¹¹⁶, *after 2 h, **phenol-cresol extraction incidence: 4?/4, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: 60 µg AFG₁ (labeled)/100 g, i.p., once), conc.: 8.5 ng AFG₁ bound/mg* DNA** (mean value), country: USA¹¹⁶, *after 2 h, **chloroform/isoamylalcohol extraction

incidence: 3?/3, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: $60 \mu g AFG_1$ (labeled)/100 g, i.p., once), conc. range: $\approx \le 10.5 ng AFG_1$ bound/mg rRNA* (mean value), country: USA 116 , *after $\approx 2 h$ (also measured after ≈ 4 , 24, and 48 h, lowest conc.: $\approx 7 ng AFG_1$ bound/mg rRNA after 24 h)

incidence: 3?/3, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: $60 \mu g AFG_1$ (labeled)/100 g, i.p., once), conc. range: $\approx \le 7$ ng AFG_1 bound/ mg DNA* (mean value), country: USA¹¹⁶, *after ≈ 2 h (also measured after ≈ 4 , 24, and 48 h, lowest conc.: ≈ 2 ng AFG_1 bound/mg DNA after 48 h) incidence: 3?/3, sa. const.: Wistar derived strain, wt.: 150 g, contamination: artificial (dose: $60 \mu g AFG_1$ (labeled)/100 g, i.p., once), conc. range: $\approx \le 2.5$ ng AFG_1 bound/ mg protein* (mean value), country: USA¹¹⁶, *after ≈ 2 h (also measured after ≈ 4 , 24, and 48 h, lowest conc.: $\approx nd$ after 48 h)

AFLATOXIN M,

incidence: 3?/3, sa. const.: male F344 rats, wt.: 100-125 g, contamination: artificial (dose: $400 \mu g$ AFB₁ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: $0.42 \mu mol/mg$ DNA* ** (mean value), country: USA¹⁴², *after 24 h, **AFM₁-N⁷-Gua

incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** µM AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤30 pmol AFM, formed/min/mg protein** *** (mean value), country: USA624, *control, ***after 2 h incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** µM AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤140 pmol AFM, formed/min/mg protein** *** (mean value), country: USA⁶²⁴, *BNF-diet (0.04%) for 7 days prior to AFB,-treatment, ***after 2 h incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** µM AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤300 pmol AFM, formed/min/mg protein** *** (mean value), country: USA⁶²⁴, *I3C-diet (0.2%) for 7 days prior to AFB₁-treatment, ***after 2 h incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** µM AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤390 pmol AFM, formed/min/mg protein** *** (mean value), country: USA⁶²⁴, *I3C- (0.2%) + BNF-diet (0.04%) for 7 days prior to AFB,-treatment, ***after 2 h

AFLATOXIN Q,

rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** μM AFB₁ (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤35 pmol AFQ₁ formed/min/mg protein** *** (mean value), country: USA⁶²⁴, *control, ***after 2 h incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** μM AFB₁

(labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤50 pmol AFQ, formed/min/mg protein** *** (mean value), country: USA⁶²⁴, *BNF-diet (0.04%) for 7 days prior to AFB,-treatment, ***after 2 h incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** µM AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤180 pmol AFQ₁ formed/min/mg protein** *** (mean value), country: USA⁶²⁴, *I3C-diet (0.2%) for 7 days prior to AFB,-treatment, ***after 2 h incidence: 4?/4*, sa. const.: male Fischer rats, age: 4 weeks, contamination: artificial (dose: 16, 124, or 512** μ M AFB, (labeled), i.p., once; for detailed information please see the article), conc. range: ≈≤190 pmol AFQ, formed/min/mg protein** *** (mean value), country: USA624, *I3C-(0.2%) + BNF-diet (0.04%) for 7 days prior to AFB,-treatment, ***after 2 h

AFLATOXIN

incidence: ?/3–4, sa. const.: male Wistar outbred rats, wt.: 190–210 g, contamination: artificial (dose: $0.5 \mu g$ AFB₁ (labeled), by stomach intubation, twice daily on weekdays for 1, 2, 6, 13, 20, or 23 days), conc. range: \leq 267 pg AF bound/mg DNA* ** (mean values), country: France/UK²⁷, *chronic exposure, **after 14 days of AFB₁-administration (also at other day intervals up to 24 days measured, lowest conc.: 108.4 pg AF bound/mg DNA after 2 days)

incidence: 3?/3*, sa. const.: adult male Fischer rats, Ø wt.: 155 g, contamination: artificial (dose: 0.52 mg AFB $_1$ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 130 µmol AF bound/mg DNA ** (x 10^{-6}) (mean value), country: USA 133 , *control, **after 18 h incidence: 3?/3*, sa. const.: adult male Fischer rats, Ø wt.: 155 g, contamination: artificial (dose: 0.52 mg AFB $_1$ (labeled)/kg b. wt., i.p., once; for detailed information

please see the article), conc.: 15 μmol AF bound/mg DNA** (x 10⁻⁶) (mean value), country: USA¹³³, *PB (0.1%)-treated rats for 1 week before AFB₁-administration until the experiment was terminated, **after 18 h incidence: 3?/3*, sa. const.: adult male Fischer rats, Ø wt.: 129 g, contamination: artificial (dose: 0.62 mg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 68 μmol AF bound/mg DNA** (x 10⁻⁶) (mean value), country: USA¹³³, *hypophysectomized rats 3 weeks before AFB₁-administration, **after 18 h

incidence: 3?/3*, sa. const.: adult male Fischer rats, Ø wt.: 155 g, contamination: artificial (dose: 0.52 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 260 µmol AF bound/mg rRNA** (x 10⁻⁶) (mean value), country: USA133, *control, **after 18 h incidence: 3?/3*, sa. const.: adult male Fischer rats, Ø wt.: 155 g, contamination: artificial (dose: 0.52 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 35 µmol AF bound/mg rRNA** (x 10-6) (mean value), country: USA133, *PB (0.1%)-treated rats for 1 week before AFB,-administration until the experiment was terminated, **after 18 h

incidence: 3?/3*, sa. const.: adult male Fischer rats, Ø wt.: 129 g, contamination: artificial (dose: 0.62 mg AFB_1 (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 210 µmol AF bound/mg rRNA** (x 10^{-6}) (mean value), country: USA¹³³, *hypophysectomized rats 3 weeks before AFB₁-administration, **after 18 h

incidence: 3?/3*, sa. const.: adult male Fischer rats, Ø wt.: 155 g, contamination: artificial (dose: 0.52 mg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 16 µmol AF bound/mg protein** (x 10⁻⁶) (mean value), country: USA¹³³, *control, **after 18 h incidence: 3?/3*, sa. const.: adult male Fischer rats, Ø wt.: 155 g, contamination:

artificial (dose: 0.52 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 5 µmol AF bound/mg protein** (x 10⁻⁶) (mean value), country: USA133, *PB (0.1%)-treated rats for 1 week before AFB, -administration until the experiment was terminated, **after 18 h incidence: 3?/3*, sa. const.: adult male Fischer rats, Ø wt.: 129 g, contamination: artificial (dose: 0.62 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 15 µmol AF bound/mg protein** (x 10-6) (mean value), country: USA133, *hypophysectomized rats 3 weeks before AFB,-administration, **after 18 h incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 0.52 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 130 μmol* AF bound/mg DNA** (x 10^{-6}) (mean value), country: USA133, *after 18 h, **liver DNA incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 0.52 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 1.4 µmol* AF bound/mg DNA** (x 10^{-6}) (mean value), country: USA133, *after 18 h, **liver DNA incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 0.52 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 140 μmol* AF bound/mg rRNA** (x 10-6) (mean value), country: USA133, *after 18 h, **liver rRNA incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 0.52 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 2.0 µmol* AF bound/mg rRNA** (x 10-6) (mean value), country: USA133, *after 18 h, **liver rRNA

incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 0.52 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 11 µmol* AF bound/mg protein** (x 10⁻⁶) (mean value), country: USA133, *after 18 h, **liver protein incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 0.52 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 8.3 µmol* AF bound/mg protein** (x 10-6) (mean value), country: USA133, *after 18 h, **liver protein incidence: 2?/2*, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 0.0012 mg AFB, (labeled)/kg b. wt. + 2.08 mg AFB, (unlabeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: ≤0.4 µmol** AF bound/mg DNA*** (x 10^{-6}) (mean value), country: USA¹³³, *control, **after 6 h, ***liver DNA incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 2.08 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 1,700 μmol* AF bound/mg DNA** (x 10^{-6}) (mean value), country: USA133, *after 6 h, **liver DNA incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 2.08 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 12 μmol* AF bound/mg DNA** (x 10^{-6}) (mean value), country: USA133, *after 6 h, **liver DNA incidence: 2?/2*, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 0.0012 mg AFB, (labeled)/kg b. wt. + 2.08 mg AFB, (unlabeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: ≤0.1 µmol** AF bound/mg

rRNA*** (x 10-6) (mean value), country: USA133, *control, **after 6 h, ***liver rRNA incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 2.08 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 1,900 μmol* AF bound/mg rRNA** (x 10-6) (mean value), country: USA133, *after 6 h, **liver rRNA incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 2.08 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 13 μmol* AF bound/mg rRNA** (x 10⁻⁶) (mean value), country: USA133, *after 6 h, **liver rRNA incidence: 2?/2*, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 0.0012 mg AFB, (labeled)/kg b. wt. + 2.08 mg AFB, (unlabeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: ≤0.02 µmol** AF bound/ mg protein*** (x 10⁻⁶) (mean value), country: USA133, *control, **after 6 h, ***liver protein incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 2.08 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 150 μmol* AF bound/mg protein** (x 10⁻⁶) (mean value), country: USA¹³³, *after 6 h, **liver protein incidence: 3?/3, sa. const.: adult male Fischer rats, wt.: 180-200 g, contamination: artificial (dose: 2.08 mg AFB, (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc.: 52 μmol* AF bound/mg protein** (x 10⁻⁶) (mean value), country: USA133, *after 6 h, **liver protein incidence: 2/2*, sa. const.: male

Sprague-Dawley rats, wt.: 230-335 g,

contamination: no AFB, (for detailed

information please see the article), conc.: nr, country: The Netherlands/France²¹⁴, *control

incidence: 2?/2, sa. const.: male Sprague-Dawley rats, wt.: 230–335 g, contamination: artificial (19 μg AFB₁ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: 83 pg AF/mg DNA*** (mean value), country: The Netherlands/France²¹⁴, *AF-DNA adducts, **after 24 h

incidence: 2?/2, sa. const.: male Sprague-Dawley rats, wt.: 230–335 g, contamination: artificial (32 µg AFB₁ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: 146 pg AF/mg DNA* ** (mean value), country: The Netherlands/France²¹⁴, *AF-DNA adducts, **after 24 h

incidence: 2?/2, sa. const.: male Sprague-Dawley rats, wt.: 230–335 g, contamination: artificial (75 μg AFB₁ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: 444 pg AF/mg DNA* ** (mean value), country: The Netherlands/France²¹⁴, *AF-DNA adducts, **after 24 h

incidence: 4?/4, sa. const.: male Fischer 344 rats, wt.: 100-125 g, contamination: artificial (dose: $2.2 \mu g$ AFB₁ (labeled, total), i.t. Installation, once; for detailed information please see the article), conc. range: $\leq 23 \text{ pmol AFB/mg DNA***}$ (mean value), country: USA⁴³³, *AFB-DNA adducts, **after 30 min of AFB₁-exposure (also measured after 2, 6, 24, and 48 h, lowest conc.: $\approx 4 \text{ pmol AFB/mg DNA}$ after 48 h)

incidence: 4?/4, sa. const.: male Fischer 344 rats, wt.: 100–125 g, contamination: artificial (dose: 17.6 ng AFB₁/min given as nose-only inhalation; for detailed information please see the article), conc. range: ≤56.8 pmol AF-DNA adducts formed/mg DNA* ** (mean value), country: USA⁴³³, *AF-N⁷-Gua adducts,

**after 120 min of AFB₁-exposure (also measured after 20, 40, and 60 min, lowest conc.: 4.2 pmol AF-DNA adducts formed/mg DNA after 20 min)

incidence: ?/4-6*, sa. const.: male Sprague-Dawley rats, age: 20 days, wt.: 45-50 g, contamination: artificial (dose: 25 µg AFB, (labeled and unlabeled), i.p., once), conc.: 12.65 pmol AF/mg DNA** *** (mean value), country: USA490, *control **semi-purified diet** 3 weeks prior to AFB,-treatment (for detailed information please see the article), **after 2 h, ***total AF-DNA adducts incidence: ?/4-6*, sa. const.: male Sprague-Dawley rats, age: 20 days, wt.: 45-50 g, contamination: artificial (dose: 25 µg AFB, (labeled and unlabeled), i.p., once), conc.: 16.6 pmol AF/mg DNA** *** (mean value), country: USA490, *cholinedeficient/methionine-low diet 3 weeks prior to AFB,-treatment (for detailed information please see the article), **after 2 h, ***total AF-DNA adducts incidence: ?/4-6*, sa. const.: male Sprague-Dawley rats, age: 20 days, wt.: 45-50 g, contamination: artificial (dose: 25 μg AFB, (labeled and unlabeled), i.p., once), conc.: 6.1 pmol AF/mg DNA** *** (mean value), country: USA⁴⁹⁰, *control semi-purified diet 3 weeks prior to AFB,-treatment (for detailed information please see the article), **after 24 h, ***total AF-DNA adducts incidence: ?/4-6*, sa. const.: male Sprague-Dawley rats, age: 20 days, wt.: 45-50 g, contamination: artificial (dose: 25 µg AFB, (labeled and unlabeled), i.p., once), conc.: 4.2 pmol AF/mg DNA** *** (mean value), country: USA490, *choline-deficient/ methionine-low diet 3 weeks prior to AFB, treatment (for detailed information please see the article), **after 24 h,

incidence: ?/?, sa. const.: male F-344 rats [CDF (F-344)/CrlBR], contamination: artificial (dose: 2.2 ng AFB, (labeled)/kg/

***total AF-DNA adducts

day in the drinking water, o., for 4, 6, or 8 weeks; for detailed information please see the article), conc. range: ≤0.91 AF-nucleotide adducts/109 nucleotides (mean value), country: Switzerland602, *after 8 weeks (also measured after 4 and 6 weeks) incidence: ?/?, sa. const.: male F-344 rats [CDF (F-344)/CrlBR], contamination: artificial (dose: 73 ng AFB, (labeled)/kg/ day in the drinking water, o., for 4, 6, or 8 weeks; for detailed information please see the article), conc. range: ≤32 AF-nucleotide adducts/109 nucleotides (mean value), country: Switzerland602, *after 8 weeks (also measured after 4 and 6 weeks) incidence: ?/?, sa. const.: male F-344 rats [CDF (F-344)/CrlBR], contamination: artificial (dose: 2,110 ng AFB, (labeled)/ kg/day in the drinking water, o., for 4, 6, or 8 weeks; for detailed information please see the article), conc. range: ≤850 AF-nucleotide adducts/109 nucleotides (mean value), country: Switzerland⁶⁰², *after 8 weeks (also measured after 4 and 6 weeks)

AFLATOXINS

incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (dust-adsorbed), once; for detailed information please see the article), conc.: ≤1.619 nmol AFs/g tissue (x 10⁻³)*, country: USA⁶⁰⁴, *after 3 h (also measured after 3 days and 3 weeks, lowest conc.: 0.045 nmol AFs/g tissue (x 10⁻³) after 3 weeks) incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (microcrystalline form), once; for detailed information please see the article), conc.: ≤2.598 nmol AFs/g tissue (x 10^{-3})*, country: USA⁶⁰⁴, *after 3 h (also measured after 3 days and 3 weeks, lowest conc.: 0.027 nmol AFs/g tissue (x 10⁻³) after 3 weeks)

HT-2 Toxin

incidence: 3?/3, sa. const.: male Wistar rats, age: 8–10 weeks, wt.: 400–500 g, contamination: artificial (dose: 5 mg T-2 toxin/kg b. wt., o., once), conc. range: ≤5 µg/100 g liver* (mean value), country: Japan³⁹¹, *after 30 min

incidence: 3/3*, sa. const.: male F344 rats, age:

OCHRATOXIN A

8 weeks, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Germany125, *control incidence: 3?/3, sa. const.: male F344 rats, age: 8 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: <12 pmol/g* ** (mean value), country: Germany125, *24 h after OTA-administration (also at other day intervals up to 56 days measured, lowest conc.: nd after 28 days), **highest value recorded incidence: 3/3*, sa. const.: female F344 rats, age: 8 weeks, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Germany¹²⁵, *control incidence: 3?/3, sa. const.: female F344 rats, age: 8 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: \approx ≤2 pmol/g* ** (mean value), country: Germany¹²⁵, *24 h after OTA-

incidence: ?/3 or more*, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: no OTA, conc.: nr, country: Japan¹⁴³, *control incidence: ?/3–4, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 15 mg OTA (labeled)/kg, o., once), conc. range: ≈4.5 µg/g wet weight of tissue* (mean value), country: Japan¹⁴³, *after 24 h

administration (also at other day intervals

up to 56 days measured, lowest conc.: nd

after 28 days), **highest value recorded

(also at other hour intervals up to 40 h measured, lowest conc.: \approx 2.5 µg/g wet weight of tissue after 8 h)

incidence: 4?/4, sa. const.: healthy adult female Sprague-Dawley rats, wt.: 270–350 g, contamination: artificial (dose: 100 µg OTA/rat, i.v., once), conc. range: ≤280 ng/g (mean value), country: Canada¹⁷⁵, measured at 2, 24, 48, and 96 h incidence: 4?/4, sa. const.: healthy adult female Sprague-Dawley rats, wt.: 270–350 g, contamination: artificial (dose: 100 µg OTC!/rat, i.v., once), conc. range: ≤355 ng/g (mean value), country: Canada¹⁷⁵, measured at 2, 24, 48, and 96 h

incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83–110 g, contamination: no OTA, **diet B-II** (for detailed information please see the article), conc.: nr, country: Canada²⁰⁹, *control

incidence: ?/10, sa. const.: Wistar male rats, wt.: 83–110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily for 6 days (diet B-I); for detailed information please see the article), conc.: pr*, country: Canada²⁰⁹, *measured at day 1, 2, 3, 4, 5, and 6? of OTA-administration

incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83–110 g, contamination: no OTA, **diet NMB** (for detailed information please see the article), conc.: nr, country: Canada²⁰⁹, *control

incidence: 3?/3, sa. const.: Wistar male rats, wt.: 83–110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily, daily for 6 days (diet NMB+T); for detailed information please see the article), conc.: 2 µg/g* (mean value), country: Canada²⁰⁹, *measured on day 5 of OTA-administration (also measured at day 3 and 6)

incidence: ?/2 (10)*, sa. const.: Sprague-Dawley male rats, wt.: ≈100 g, contamination: no OTA, conc.: nr, country: USA²¹⁸, *control incidence: ?/2, sa. const.: Sprague-Dawley male rats, wt.: \approx 100 g, contamination: artificial (dose: 1 mg OTA (labeled)/rat, i.p., once), conc. range: \leq 7.1 µg/g tissue* (mean value), country: USA²¹⁸, *after 0.5 h (also measured after 2, 4, 8, and 24 h, lowest conc.: 1.0 µg/g tissue after 24 h)

incidence: 5/5*, sa. const.: male Fisher 344 (F344) rats, age: 10 weeks, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Spain⁴³⁹, *control incidence: 5/5, sa. const.: male Fisher 344 (F344) rats, age: 10 weeks, contamination: artificial (dose: **0.5 mg OTA**/kg b. wt., o., daily for 7 days; for detailed information please see the article), conc. range: 736–923 µg/kg, Ø conc.: 829 µg/kg, country: Spain⁴³⁹, *after 24 h of final administration

incidence: ?/12*, sa. const.: male Wistar/ AF EOPS rats, wt.: 240-290 g, contamination: no OTA only basal feed; for detailed information please see the article), conc.: 1.4 ng/g** (mean value), country: Belgium⁵⁰⁹, *control, **after 4 weeks of OTAadministration incidence: ?/12, sa. const.: male Wistar/ AF EOPS rats, wt.: 240-290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat (2.2 µg/g), o., for 28 days; for detailed information please see the article), conc.: 73.7 ng/g* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240-290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat $(2.2 \mu g/g) + MWF$ (2%), o., for 28 days; for detailed information please see the article), conc.: 45.1 ng/g* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration

incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240–290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat (2 μg/g) + MWF (1.8%) + YCW (0.2%), o., for 28 days; for detailed information please see the article), conc.: 56.3 ng/g* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration

ZEARALENONE

incidence: 4?/4, sa. const.: weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g feed additionally to 0% of alfalfa in the diet, for 14 days; for detailed information please see the article), conc.: 3.86 μg/g* (mean value), country: Canada84, *after 14 days of ZEA-administration incidence: 4?/4, sa. const.: weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g feed additionally to 15% of alfalfa in the diet, for 14 days; for detailed information please see the article), conc.: 1.85 μg/g* (mean value), country: Canada84, *after 14 days of ZEA-administration incidence: 4?/4, sa. const.: weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g feed additionally to 25% of alfalfa in the diet, for 14 days; for detailed information please see the article), conc.: 1.38 μg/g* (mean value), country: Canada84, *after 14 days of ZEA-administration

incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks, wt.:
230–290 g, contamination: artificial (dose:
1.13 mg ZEA/h/kg, i.v., for 6 h), conc.:
≈800 ng/g* (mean value), country: Korea/
USA⁵⁸⁵, *after 6 h of ZEA-administration
incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks, wt.:
230–290 g, contamination: artificial
(dose: 2.25 mg ZEA/h/kg, i.v., for 6 h),
conc.: ≈1,600 ng/g* (mean value),
country: Korea/USA⁵⁸⁵, *after 6 h of
ZEA-administration

α-Zearalenol

incidence: 4?/4, sa. const.: weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g feed additionally to 0% of alfalfa in the diet, for 14 days; for detailed information please see the article), conc.: 1.19 µg/g* (mean value), country: Canada84, *after 14 days of ZEA-administration incidence: 4?/4, sa. const.: weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g feed additionally to 15% of alfalfa in the diet, for 14 days; for detailed information please see the article), conc.: 0.44 µg/g* (mean value), country: Canada84, *after 14 days of ZEA-administration incidence: 4?/4, sa. const.: weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g feed additionally to 25% of alfalfa in the diet, for 14 days; for detailed information please see the article), conc.: 0.29 µg/g* (mean value), country: Canada⁸⁴, *after 14 days of ZEA-administration

B-Zearalenol

incidence: 4?/4, sa. const.: weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g feed additionally to 0% of alfalfa in the diet, for 14 days; for detailed information please see the article), conc.: 0.23 μg/g* (mean value), country: Canada84, *after 14 days of ZEA-administration incidence: 4?/4, sa. const.: weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g feed additionally to 15% of alfalfa in the diet, for 14 days; for detailed information please see the article), conc.: 0.17 μg/g* (mean value), country: Canada84, *after 14 days of ZEA-administration incidence: 4?/4, sa. const.: weanling Wistar rats, contamination: artificial (dose: 250 μg crystalline ZEA/g feed additionally to 25% of alfalfa in the diet, for 14 days; for detailed information please see the

article), conc.: 0.09 μg/g* (mean value), country: Canada⁸⁴, *after 14 days of ZEA-administration

Rat lung may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 3/3, sa. const.: neonatal rats of albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 μg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: nd* **, country: India594, *AFB,-DNA adducts, **after 48 h while taking milk from their mother incidence: 3?/3, sa. const.: neonatal rats of albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 µg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: nd* ** ***, country: India594, *AFB, -DNA adducts, **after 48 h while taking milk from their mother, ***PB (80 mg/kg b. wt.) injected 3 days prior to AFB, -administration incidence: 3?/3, sa. const.: neonatal rats of albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 μg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: 48 pmol AFB₁/mg RNA* (mean value), country: India⁵⁹⁴, *after 48 h while taking milk from their mother incidence: 3?/3, sa. const.: neonatal rats of albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 μg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: 7 pmol AFB,/mg RNA* ** (mean value), country: India594, *after 48 h while taking milk from their mother, **PB (80 mg/kg b. wt.) injected 3 days prior to AFB, -administration incidence: 3?/3, sa. const.: neonatal rats of albino rats (wt.: 200-250 g) of Wistar strain, contamination: artificial (dose: 20 μg AFB, (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: 74 pmol AFB,/mg protein*

(mean value), country: India⁵⁹⁴, *after 48 h while taking milk from their mother incidence: 3?/3, sa. const.: neonatal rats of albino rats (wt.: 200–250 g) of Wistar strain, contamination: artificial (dose: 20 µg AFB₁ (labeled)/100 g b. wt. into the mother rat, i.p., once (13 days after giving birth), conc.: 22 pmol AFB₁/mg protein* ** (mean value), country: India⁵⁹⁴, *after 48 h while taking milk from their mother, **PB (80 mg/kg b. wt.) injected 3 days prior to AFB₁-administration

AFLATOXINS

incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (dust-adsorbed), once; for detailed information please see the article), conc.: ≤11.573 nmol AFs/g tissue (x 10⁻³)*, country: USA⁶⁰⁴, *after 3 h (also measured after 3 days and 3 weeks, lowest conc.: 0.105 nmol AFs/g tissue (x 10⁻³) after 3 weeks) incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (microcrystalline form), once; for detailed information please see the article), conc.: ≤1.619 nmol AFs/g tissue (x 10^{-3})*, country: USA⁶⁰⁴, *after 3 h (also measured after 3 days and 3 weeks, lowest conc.: 0.067 nmol AFs/g tissue (x 10⁻³) after 3 weeks)

ZEARALENONE

incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks, wt.:
230–290 g, contamination: artificial (dose:
1.13 mg ZEA/h/kg, i.v., for 6 h), conc.:
≈360 ng/g* (mean value), country: Korea/
USA⁵⁸⁵, *after 6 h of ZEA-administration
incidence: ?/?, sa. const.: male
Sprague-Dawley rats, age: 8–10 weeks, wt.:
230–290 g, contamination: artificial
(dose: 2.25 mg ZEA/h/kg, i.v., for 6 h),
conc.: ≈1,000 ng/g* (mean value),
country: Korea/USA⁵⁸⁵, *after 6 h of
ZEA-administration

Rat lymph may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: ?/6, sa. const.: male Wistar rats, age: 8–10 weeks, contamination: artificial (dose: 1 mg OTA/kg, injection to the femoral vein, once), conc.: 2.69 μg/ml (mean value), country: Japan¹⁷⁴ incidence: ?/7, sa. const.: male Wistar rats, age: 8–10 weeks, contamination: artificial (dose: 113 μg OTA/ml, injection into the jejunal loop, once), conc.: 1.51 μg/ml (mean value), country: Japan¹⁷⁴ incidence: ?/6, sa. const.: male Wistar rats, age: 8–10 weeks, contamination: artificial (dose: 206 μg OTA/ml, injection into the jejunal loop, once), conc.: 2.16 μg/ml (mean value), country: Japan¹⁷⁴

Rat milk may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: ?/?, sa. const.: pregnant Sprague-Dawley rats, wt.: 400-450 g, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, once), conc. range: 1.1-3.5 nmol/ml* **, country: USA²⁶⁵, *control, **1 h post-dosing (for detailed information please see the article) incidence: ?/?, sa. const.: pregnant Sprague-Dawley rats, wt.: 400-450 g, contamination: artificial (dose: 0.5 mg AFB, (labeled)/kg, once), conc. range: 0.2-2.0 nmol/ml* **, country: USA²⁶⁵, *PCB-treatment (575 mg/kg) at day 1 of the experiment, **1 h post-dosing (for detailed information please see the article)

AFLATOXIN M₁ incidence: ?/?, sa. const.: pregnant Sprague-Dawley rats, wt.: 400–450 g, contamination: artificial (dose: 0.5 mg AFB₁ (labeled)/kg, once), conc. range: 3.6–9.8 nmol/ml* **, country: USA²⁶⁵, *control, **1 h post-dosing (for detailed information please see the article)

incidence: ?/?, sa. const.: pregnant Sprague-Dawley rats, wt.: 400–450 g, contamination: artificial (dose: 0.5 mg AFB₁ (labeled)/kg, once), conc. range: 3.7–11.9 nmol/ml* **, country: USA²⁶⁵, *PCB-treatment (575 mg/kg) at day 1 of the experiment, **1 h post-dosing (for detailed information please see the article)

OCHRATOXIN A

incidence: 5?/5*, sa. const.: Sprague-Dawley rats (dams), wt.: 300-370 g, contamination: no OTA (for detailed information please see the article), conc.: 0.7 μg/l** (mean value), country: Sweden³¹², *control, **after 72 h (also measured after 24 h conc.: 0.6 μg/l*) incidence: 4?/4, sa. const.: Sprague-Dawley rats (dams), wt.: 300-370 g, contamination: artificial (dose: 10 µg OTA/kg b. wt., o., once at 11th day of lactation; for detailed information please see the article), conc.: 14 µg/l* (mean value), country: Sweden³¹², *after 24 h (also measured after 72 h conc.: 6.3 µg/l) incidence: 4?/4, sa. const.: Sprague-Dawley rats (dams), wt.: 300-370 g, contamination: artificial (dose: 50 µg OTA/kg b. wt., o., once at 11th day of lactation; for detailed information please see the article), conc.: 70 µg/l* (mean value), country: Sweden³¹², *after 24 h (also measured after 72 h conc.: 22 µg/l) incidence: 5?/5, sa. const.: Sprague-Dawley rats (dams), wt.: 300-370 g, contamination: artificial (dose: 250 µg OTA/kg b. wt., o., once at 11th day of lactation; for detailed information please see the article), conc.: 230 μg/l* (mean value), country: Sweden³¹², *after 24 h (also measured after 72 h conc.: 83 µg/l)

incidence: 4?(8?)/4(8)*, sa. const.: Sprague-Dawley rats (dams), contamination: no OTA (for detailed information please see the article), Ø conc.: 3.35 µg/l** (mean value),

country: Sweden³²², *control, **at day 14 of lactation incidence: 4?(8?)/4(8), sa. const.: Sprague-Dawley rats (dams), contamination: artificial (dose: 50 µg OTA/kg b. wt., gastric intubation, 46 times in 8 weeks; for detailed information please see the article), Ø conc.: 135 µg/l* (mean value), country: Sweden322, *at day 14 of lactation incidence: 4?(8?)/4(8)*, sa. const.: Sprague-Dawley rats (dams), contamination: no OTA (for detailed information please see the article), Ø conc.: 2.4 µg/l** (mean value), country: Sweden³²², *control, **at day 21 of lactation incidence: 4?(8?)/4(8), sa. const.: Sprague-Dawley rats (dams), contamination: artificial (dose: 50 µg OTA/kg b. wt., gastric intubation, 46 times for 8 weeks; for detailed information please see the article), Ø conc.: 135 µg/l* (mean value), country: Sweden³²², *at day 21 of lactation

Rat muscle may contain the following mycotoxins and/or their metabolites:

CYCLOPIAZONICACID incidence: 2?/2, sa. const.: male HSD:Sprague-Dawley BR rats, wt.: 150-200 g, contamination: artificial (dose: 1.0 mg CPA (labeled)/kg b. wt., i.g., once), conc. range: 2.4 µg/g* ** *** (mean value), country: USA111, *in gastrocnemius muscle, **[14C]CPA-eq., ***after 24 h incidence: 2?/2, sa. const.: male HSD:Sprague-Dawley BR rats, wt.: 150-200 g, contamination: artificial (dose: 1.0 mg CPA (labeled)/kg b. wt., i.g., once), conc. range: 3.3 μg/g* ** *** (mean value), country: USA111, *in tibialis anterior muscle, **[14C]CPA-eq., ***after 24 h incidence: 2?/2, sa. const.: male HSD:Sprague-Dawley BR rats, wt.: 150-200 g, contamination: artificial (dose: 1.0 mg CPA (labeled)/kg b. wt., i.g., once), conc. range: 2.4 µg/g* ** ***

(mean value), country: USA111, *in biceps femoris muscle, **[14C]CPA-eq., ***after 24 h incidence: 2?/2, sa. const.: male HSD:Sprague-Dawley BR rats, wt.: 150-200 g, contamination: artificial (dose: 1.0 mg CPA (labeled)/kg b. wt., i.g., once), conc. range: 1.6 μg/g* ** *** (mean value), country: USA111, *in diaphragm muscle, **[14C]CPA-eq., ***after 24 h incidence: 2?/2, sa. const.: male HSD:Sprague-Dawley BR rats, wt.: 150-200 g, contamination: artificial (dose: 1.0 mg CPA (labeled)/kg b. wt., i.g., once), conc. range: 2.9 μg/g* ** *** (mean value), country: USA111, *in biceps muscle, **[14C]CPA-eq., ***after 24 h incidence: 2?/2, sa. const.: male HSD:Sprague-Dawley BR rats, wt.: 150-200 g, contamination: artificial (dose: 1.0 mg CPA (labeled)/kg b. wt., i.g., once), conc. range: 2.6 μg/g* ** *** (mean value), country: USA111, *in pectoris major muscle, **[14C]CPA-eq., ***after 24 h incidence: 2?/2, sa. const.: male HSD:Sprague-Dawley BR rats, wt.: 150-200 g, contamination: artificial (dose: 1.0 mg CPA (labeled)/kg b. wt., i.g., once), conc. range: 1.6 μg/g* ** *** (mean value), country: USA111, *in masseter muscle, **[14C]CPA-eq., ***after 24 h incidence: 2?/2, sa. const.: male HSD:Sprague-Dawley BR rats, wt.: 150-200 g, contamination: artificial (dose: 1.0 mg CPA (labeled)/kg b. wt., i.g., once), conc. range: 3.2 µg/g* ** *** (mean value), country: USA111, *in tenes major muscle, **[14C]CPA-eq., ***after 24 h

Ochratoxin A incidence: 4?/4, sa. const.: healthy adult female Sprague-Dawley rats, wt.: 270–350 g, contamination: artificial (dose: 100 μg OTA/rat, i.v., once), conc. range: ≤190 ng/g (mean value), country: Canada¹¹⁵, measured at 2, 24, 48, and 96 h incidence: 4?/4, sa. const.: healthy adult female Sprague-Dawley rats,

wt.: 270–350 g, contamination: artificial (dose: 100 μg OTC!/rat, i.v., once), conc. range: ≤125 ng/g (mean value), country: Canada¹⁷⁵, measured at 2, 24, 48, and 96 h

ZEARALENONE

incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 1.13 mg ZEA/h/kg, i.v., for 6 h), conc.: ≈90 ng/g* (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEA-administration incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 2.25 mg ZEA/h/kg, i.v., for 6 h), conc.: ≈120 ng/g* (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEA-administration

Rat plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: ?/?*, sa. const.: male Sprague-Dawley, Wistar, and Fischer 344 rats, wt.: 80-140 g, contamination: no AFB, conc.: nr, country: France/Japan²⁴, *control incidence: ?/?, sa. const.: male Sprague-Dawley, Wistar, and Fischer 344 rats, wt.: 80-140 g, contamination: artificial (dose: 20 µg AFB,/kg/day, by gavage, daily for up to 14 days), conc. range: ≈≤25 pmol AFB,-lysine eq/mg albumin* ** (mean values, combined data from three strains), country: France/Japan²⁴, *animals killed after 24 h of final treatment (also measured after 1, 3, and 7 days, lowest conc.: ≈7 pmol AFB,-lysine eq/mg albumin after 1 day), **AFB,-albumin adducts

incidence: ?/4*, sa. const.: male SPF Wistar rats, age: 24–27 days, contamination: artificial (dose: 2 mg AFB $_{\rm l}$ (labeled)/kg b. wt., i.p., once), conc.: ≈210 pmol AFB $_{\rm l}$ /mg protein** *** (mean value), country: France **, **control, **AFB $_{\rm l}$ binding to plasma albumin, ***after 2 h (for overall information please see the article)

incidence: ?/4*, sa. const.: male SPF Wistar rats, age: 24-27 days, contamination: artificial (dose: 2 mg AFB, (labeled)/kg b. wt., i.p., once), conc.: ≈80 pmol AFB,/mg protein** *** (mean value), country: France⁵⁴⁹, *3-MC i.p. (20 mg/kg b. wt.) on the 3 days preceding sacrifice (3-MC was injected prior to AFB,-administration), **AFB, binding to plasma albumin, ***after 2 h (for overall information please see the article) incidence: ?/4*, sa. const.: male SPF Wistar rats, age: 24-27 days, contamination: artificial (dose: 2 mg AFB, (labeled)/kg b. wt., i.p., once), conc.: ≈85 pmol AFB,/mg protein** *** (mean value), country: France⁵⁴⁹, *CX-diet (300 mg/kg) for 2 weeks prior to AFB, -administration, **AFB, binding to plasma albumin, ***after 2 h (for overall information please see the article) incidence: ?/4*, sa. const.: male SPF Wistar rats, age: 24-27 days, contamination: artificial (dose: 2 mg AFB, (labeled)/kg b. wt., i.p., once), conc.: ≈75 pmol AFB₁/mg protein** *** (mean value), country: France⁵⁴⁹, *AC-diet (300 mg/kg) for 2 weeks prior to AFB, -administration, **AFB, binding to plasma albumin, ***after 2 h (for overall information please see the article) incidence: ?/4*, sa. const.: male SPF Wistar rats, age: 24-27 days, contamination: artificial (dose: 2 mg AFB, (labeled)/kg b. wt., i.p., once), conc.: ≈210 pmol AFB,/mg protein** *** (mean value), country: France⁵⁴⁹, *BC-diet (300 mg/kg) for 2 weeks prior to AFB,-administration, **AFB, binding to plasma albumin, ***after 2 h (for overall information please see the article)

incidence: 4?/4, sa. const.: male F344 rats, wt.: 185 g, contamination: artificial (dose: 0.01, 0.1, 1, 10, and 100 ng and 1 and 10^* µg AFB₁, i.p., daily for 9 days), conc. range: $\approx \le 4,000$ pg lysine-AFB₁/mg albumin* ** (mean value), country: USA⁶²², **after 18 h of the final dose (for overall information please see the article)

AFLATOXIN

incidence: ?/3–4, sa. const.: male Wistar outbred rats, wt.: 190–210 g, contamination: artificial (dose: $0.5 \mu g$ AFB₁ (labeled), by stomach intubation, twice daily on weekdays for 1, 2, 6, 13, 20, or 23 days), conc. range: $\leq 148.3 pg$ AF bound/mg protein* ** (mean values), country: France/UK²⁷, *chronic exposure, **after 14 days of AFB₁-administration (also at other day intervals up to 24 days measured, lowest conc.: 35.6 pg AF bound/mg protein after 1 day)

incidence: ?/4*, sa. const.: male F344 rats, wt.: 100 g, contamination: artificial (dose: 20.0 µg AFB, (labeled), by gavage, daily for 35 days), conc. range: ≈≤490 pmol AF-adducts bound/mg albumin** (mean value), country: USA605, *control, **after 24 days of AFB,-administration (also at other day intervals up to 40 days measured) incidence: ?/4, sa. const.: male F344 rats. wt.: 100 g, contamination: artificial (dose: 20.0 µg AFB, (labeled), by gavage, daily for 35 days), conc. range: ≈≤390 pmol AF-adducts bound/mg albumin* ** (mean value), country: USA605, *after 16 days of AFB, -administration (also at other day intervals up to 40 days measured), **oltipraz-diet (0.05%) 1 week after AFB,-treatment began and ended 2 weeks before AFB,-treatment stopped (transient intervention) incidence: ?/4, sa. const.: male F344 rats, wt.: 100 g, contamination: artificial (dose: 20.0 µg AFB, (labeled), by gavage, daily for 35 days), conc. range: ≈≤215 pmol AF-adducts bound/mg albumin* ** (mean value), country: USA605, *after 7 days of AFB,-administration (also at other day intervals up to 40 days measured), **oltipraz-diet (0.05%) 1 week before and continuing throughout AFB,-treatment (long-term intervention)

Fumonisin B₁ incidence: 2?/2, sa. const.: males BD IX rats, age: ≈6 weeks, wt.: ≈150 g,

contamination: artificial (dose: 7.5 mg FB_1/kg b. wt., i.p., once; for detailed information please see the article), conc. range: $\leq 8.6 \mu g/ml^*$ (mean value), country: South Africa¹¹⁴, *after 20 min (also measured after $\approx 5, \approx 7, 40, 60$, and 120 min, lowest conc.: \approx nd after 120 h)

OCHRATOXIN A

incidence: ?/7, sa. const.: male Wistar rats, age: 8–10 weeks, contamination: artificial (dose: 113 µg OTA/ml, injection into the jejunal loop, once), conc.: 10.3 µg/ml* ** (mean value), country: Japan¹¹⁴, *after 30 min, **in mesenteric venous plasma incidence: ?/8, sa. const.: male Wistar rats, age: 8–10 weeks, contamination: artificial (dose: 206 µg OTA/ml, injection into the jejunal loop, once), conc.: 22.1 µg/ml* ** (mean value), country: Japan¹づ⁴, *after 30 min, **in mesenteric venous plasma

incidence: 6?/6, sa. const.: male Wistar rats, wt.: 270 g, contamination: artificial (dose: 180 ng/ml OTA in 2 ml bile directly applicated into the **stomach**, once), conc. range: 5–22 ng/ml*, Ø conc: 15 ng/ml*, country: Yugoslavia/Sweden¹⁹¹, *after 24 h incidence: 6?/6, sa. const.: male Wistar rats, wt.: 270 g, contamination: artificial (dose: 220 ng/ml OTA in 2 ml bile directly applicated into the **duodenum**, once), conc. range: 30–60 ng/ml*, Ø conc: 40 ng/ml*, country: Yugoslavia/Sweden¹⁹¹, *after 24 h

incidence: 5?/5, sa. const.: male Wistar rats, wt.: 250–300 g, contamination: artificial (dose: 50 ng OTA ng/g b. wt., o., once), conc.: 390 ng/ml (mean value), country: Sweden/Yugoslavia¹⁹³ (at different min and hour intervals up to 24 h measured) incidence: 5?/5, sa. const.: male Wistar rats, wt.: 250–300 g, contamination: artificial (dose: 50 ng OTA /g b. wt., i.v., once), conc.: 2,100 ng/ml (mean value), country: Sweden/Yugoslavia¹⁹³ (at different min and hour intervals up to 24 h measured)

incidence: ?/?, sa. const.: adult male Wistar rats, wt.: 250 g, contamination: artificial (dose: 50 ng OTC/g b. wt., o., once), conc. range: ≤350 ng/ml* (mean value), country: Yugoslavia/Sweden¹⁹⁸, *after 60 min (also at other hour intervals up to 48 h measured, lowest conc.: 50 ng/ml after 48 h)

incidence: ?/?, sa. const.: adult male Wistar rats, wt.: 250 g, contamination: artificial (dose: 50 ng OTC/g b. wt., i.v., once), conc. range: ≤800 ng/ml* (mean value), country: Yugoslavia/Sweden¹⁹⁸, *after **90 min** (also at other hour intervals up to 48 h measured, lowest conc.: 130 ng/ml after 48 h)

incidence: ?/?, sa. const.: adult male Wistar rats, wt.: 250 g, contamination: artificial (dose: 10 mg OTA/kg, o., once; for detailed information please see the article), conc.: ≤56.7 µg/ml* (mean value), country: France³¹⁷, *after 8 h (also measured after 48 h conc.: 32.2 µg/ml)

incidence: 5/5*, sa. const.: male Fisher 344 (F344) rats, age: 10 weeks, contamination: no OTA (for detailed information please see the article), conc. range: 1.47–7.57 µg/l **, Ø conc.: 4.74 µg/l **, country: Spain⁴³⁹, *control, **after 8 days incidence: 5/5, sa. const.: male Fisher 344 (F344) rats, age: 10 weeks, contamination: artificial (dose: **0.5 mg OTA**/kg b. wt., o., daily for 7 days; for detailed information please see the article), conc. range: 9,142–10,393 µg/l*, Ø conc.: 97,372 µg/l*, country: Spain⁴³⁹, *after 24 h of final administration

incidence: ?/12*, sa. const.: male Wistar/AF EOPS rats, wt.: 240–290 g, contamination: no OTA only basal feed; for detailed information please see the article), conc.: 21.1 ng/ml** (mean value), country: Belgium⁵⁰⁹, *control, **after 4 weeks incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240–290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat (2.2 µg/g), o., for 28 days; for detailed information please

see the article), conc.: 830.2 ng/ml* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240-290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat $(2.2 \mu g/g) + MWF$ (2%), o., for 28 days; for detailed information please see the article), conc.: 494.1 ng/ml* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration incidence: ?/12, sa. const.: male Wistar/AF EOPS rats, wt.: 240-290 g, contamination: artificial (dose: basal feed + OTA contaminated wheat (2 µg/g) + MWF (1.8%) + YCW (0.2%), o., for 28 days; for detailed information please see the article), conc.: 652.0 ng/ml* (mean value), country: Belgium⁵⁰⁹, *after 4 weeks of OTA-administration

incidence: ?/3, sa. const.: male Wistar rats, age: 6 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., for 6 days), conc.: 12.2 µmol/l* (mean value), country: Germany⁵⁶¹, *after 24 h of final administration incidence: ?/3, sa. const.: male Wistar rats,

age: 2 years, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., for 6 days), conc.: 23.0 μmol/l* (mean value), country: Germany⁵⁶¹, *after 24 h of final administration

incidence: ?/3, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 1.25 mg OTA/kg b. wt., i.p., once), conc.: 89.7 µmol/l* (mean value), country: Germany⁵⁶¹, *after 2 h

incidence: 1/1, sa. const.: male albumin-deficient Sprague-Dawley rat, age: 9–10 weeks, contamination: artificial (dose: 2.2 mg OTA/kg, by injection, once), conc. range: ≈≤1.3 µg/ml* (mean value), country: Japan⁶¹³, *after ≈1 min (also at other min intervals up to 15 min measured, lowest conc.: ≈18 µg/ml after 15 min)

incidence: 4?/4, sa. const.: **normal** Sprague-Dawley rats, age: 9–10 weeks,

contamination: artificial (dose: 4.1 mg OTA/kg, by injection, once), conc. range: ≈≤71 μg/ml* (mean value), country: Japan⁶¹³, *after 10 min (also measured after 30, 60, and 90 min, lowest conc.: ≈55 μg/ml after 90 min) incidence: 4?/4, sa. const.: albumin-deficient Sprague-Dawley rats, age: 9–10 weeks, contamination: artificial (dose: 4.1 mg OTA/kg, by injection, once), conc.: nd, country: Japan⁶¹³

OCHRATOXIN B

incidence: 5?/5, sa. const.: male Wistar rats, wt.: 250–300 g, contamination: artificial (dose: 50 ng OTB/g b. wt., o., once), conc.: 120 ng/ml (mean value), country: Sweden/Yugoslavia¹⁹³ (at different min and hour intervals and up to 7 days measured) incidence: 5?/5, sa. const.: male Wistar rats, wt.: 250–300 g, contamination: artificial (dose: 50 ng OTB/g b. wt., i.v., once), conc.: 760 ng/ml (mean value), country: Sweden/Yugoslavia¹⁹³ (at different min and hour intervals and up to 7 days measured)

Rat serous fluid and mucus may contain the following mycotoxins and/or their metabolites:

OCHRATOXIN A

incidence: 3/3 or more*, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: no OTA, conc.: nr, country: Japan¹⁴³, *control incidence: ?/3–4, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 15 mg OTA (labeled)/kg, o., once), conc. range: ≤6.1 μg/ml* (mean value), country: Japan¹⁴³, *at 8 h (measured also at 4 and 6 h, lowest conc.: 3.9 μg/ml at 6 h)

Ochratoxin α incidence: 3 or more/3 or more*, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: no OTA, conc.: nr, country: Japan¹⁴³, *control

incidence: ?/3–4, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 15 mg OTA (labeled)/kg, o., once), conc.: pr, country: Japan¹⁴³ (measured at 4, 6, and 8 h)

Rat serum may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/12*, sa. const.: male Wistar rats, wt.: ≈70 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., by gavage, once), conc. range: ≤4.29** ng/mg albumin*** (mean value), country: Thailand/UK³¹⁰, *control: DMSO + 250 μg AFB, + DMSO (for overall information please see the article), **after 12 h (also measured after 4, 24, and 48 h, lowest conc.: 1.07 ng/mg albumin after 48 h), *** AFB, -albumin adducts incidence: ?/12*, sa. const.: male Wistar rats, wt.: ≈70 g, contamination: artificial (dose: 250 µg AFB₁/kg b. wt., by gavage, once), conc. range: ≤4.65** ng/mg albumin*** (mean value), country: Thailand/UK³¹⁰, *Murdannia loriformis extract + 250 μg AFB, + M. loriformis extract (for overall information please see the article), **after 4 h (also measured after 12, 24, and 48 h, lowest conc.: 1.72 ng/mg albumin after 48 h), ***AFB,-albumin adducts incidence: ?/12*, sa. const.: male Wistar rats, wt.: ≈70 g, contamination: artificial (dose: 250 µg AFB₁/kg b. wt., by gavage, once), conc. range: ≤5.09** ng/mg albumin*** (mean value), country: Thailand/UK³¹⁰, *Murdannia loriformis extract + 250 µg AFB, + DMSO (for overall information please see the article), **after 4 h (also measured after 12, 24, and 48 h, lowest conc.: 1.89 ng/mg albumin after 48 h), *** AFB, -albumin adducts incidence: ?/12*, sa. const.: male Wistar rats, wt.: ≈70 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., by gavage,

once), conc. range: ≤4.63** ng/mg

albumin*** (mean value), country:

Thailand/UK³¹⁰, *DMSO + 250 μg AFB₁ + *Murdannia loriformis* extract (for overall information please see the article), **after 4 h (also measured after 12, 24, and 48 h, lowest conc.: 2.17 ng/mg albumin after 48 h), ***AFB,-albumin adducts

incidence: ?/12*, sa. const.: male Wistar rats, wt.: ≈70 g, contamination: artificial (dose: 250 µg AFB /kg b. wt., by gavage, once), conc. range: ≤4.29** ng/mg albumin*** (mean value), country: Thailand/UK³¹⁰, *control: DMSO + 250 μg AFB, + DMSO (for overall information please see the article), **after 12 h (also measured after 4, 24, and 48 h, lowest conc.: 1.07 ng/mg albumin after 48 h), *** AFB, -albumin adducts incidence: ?/12*, sa. const.: male Wistar rats, wt.: ≈70 g, contamination: artificial (dose: 250 µg AFB /kg b. wt., by gavage, once), conc. range: ≤4.66** ng/mg albumin*** (mean value), country: Thailand/UK³¹⁰, *Cymbopogon citratus extract + 250 µg AFB, + C. citratus extract (for overall information please see the article), **after 12 h (also measured after 4, 24, and 48 h, lowest conc.: 1.16 ng/mg albumin after 48 h), *** AFB, -albumin adducts

incidence: ?/12*, sa. const.: male Wistar rats, wt.: \approx 70 g, contamination: artificial (dose: 250 µg AFB₁/kg b. wt., by gavage, once), conc. range: \leq 4.55** ng/mg albumin*** (mean value), country: Thailand/UK³¹¹⁰, **Cymbopogon citratus* extract + 250 µg AFB₁ + DMSO (for overall information please see the article), **after 12 h (also measured after 4, 24, and 48 h, lowest conc.: 1.37 ng/mg albumin after 48 h), ***AFB₁-albumin adducts

incidence: ?/12*, sa. const.: male Wistar rats, wt.: ≈70 g, contamination: artificial (dose: 250 µg AFB₁/kg b. wt., by gavage, once), conc. range: ≤4.29** ng/mg albumin*** (mean value), country: Thailand/UK³¹⁰, *DMSO + 250 µg

AFB₁ + *Cymbopogon citratus* extract (for overall information please see the article), **after 12 h (also measured after 4, 24, and 48 h, lowest conc.: 1.34 ng/mg albumin after 48 h), ***AFB₁-albumin adducts

incidence: ?/?*, sa. const.: male Wistar rats, wt.: ≈70 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., by gavage, for 5 days a week for 3 weeks; for detailed information please see the article), conc. range: ≈≤13.2 ng/mg albumin** *** (mean value), country: Thailand/UK310, *control (for overall information please see the article), **after 20 days during AFB, -administration (also at other day intervals up to ≈26 days measured, lowest conc.: ≈3 ng/mg albumin after 1 day), ***AFB,-albumin adducts incidence: ?/?, sa. const.: male Wistar rats, wt.: ≈70 g, contamination: artificial (dose: 250 µg AFB₁/kg b. wt., by gavage, for 5 days a week for 3 weeks and additionally Murdannia loriformis extract; for detailed information please see the article), conc. range: $\approx \le 12$ ng/mg albumin* ** (mean value), country: Thailand/UK³¹⁰, *after ≈12.5 days during AFB, -administration (also at other day intervals up to ≈26 days measured, lowest conc.: ≈1 ng/mg albumin after 1 day), **AFB,-albumin adducts, for overall information please see the article incidence: ?/?*, sa. const.: male Wistar rats, wt.: ≈70 g, contamination: artificial (dose: 250 μg AFB /kg b. wt., by gavage, for 5 days a week for 3 weeks; for detailed information please see the article), conc. range: ≈≤14 ng/mg albumin** *** (mean value), country: Thailand/UK310, *control (for overall information please see the article), **after 19 days during

AFB, -administration (also at other day

intervals up to ≈23.5 days measured,

lowest conc.: ≈1 ng/mg albumin after

incidence: ?/?, sa. const.: male Wistar rats,

wt.: ≈70 g, contamination: artificial (dose:

3 days), ***AFB₁-albumin adducts

250 µg AFB₁/kg b. wt., by gavage, for 5 days a week for 3 weeks and additionally *Cymbopogon citratus* extract; for detailed information please see the article), conc. range: $\approx \le 9.8$ ng/mg albumin*** (mean value), country: Thailand/UK³¹⁰, *after 19 days during AFB₁-administration (also at other day intervals up to ≈ 23.5 days measured, lowest conc.: ≈ 1 ng/mg albumin after 1 day), **AFB₁-albumin adducts, for overall information please see the article

incidence: ?/4, sa. const.: young male F344 rats, age: young, wt.: 120-140 g, contamination: artificial (dose: 250 µg AFB₁/kg b. wt., daily for 3 weeks), conc. range: ≤159.9 pmol/mg albumin* ** *** (mean value), country: USA/People's Republic of China⁴⁹³, *control (for overall information please see the article), **AFB,-albumin adducts, ***after 15 days during treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈10 pmol/mg albumin after 1 day) incidence: ?/4, sa. const.: young male F344 rats, wt.: 120-140 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., daily for 3 weeks), conc. range: ≈≤55 pmol/mg albumin* ** *** (mean value), country: USA/People's Republic of China⁴⁹³, *lycopene-treatment (100 mg/kg b. wt.) after each AFB,administration (for overall information please see the article), **AFB,-albumin adducts, *** after 15 days during treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈8 pmol/mg albumin after 1 day)

incidence: 2?/2, sa. const.: male Fischer F344 rats, wt.: 200–250 g, contamination: artificial (dose: 1 μg AFB $_1$ (labeled)/kg b. wt., i.p., once), conc.: ≈ 3.8 pg AFB $_1$ /mg serum albumin* (mean value), country: UK/Nigeria/Thailand⁶¹⁸, *after 24 h incidence: 2?/2, sa. const.: male Fischer F344 rats, wt.: 200–250 g, contamination: artificial (dose: 10 μg AFB $_1$ (labeled)/kg b. wt., i.p., once), conc.: ≈ 11 pg AFB $_1$ /mg

serum albumin* (mean value), country: UK/Nigeria/Thailand⁶¹⁸, *after 24 h incidence: 2?/2, sa. const.: male Fischer F344 rats, wt.: 200–250 g, contamination: artificial (dose: 100 μg AFB₁ (labeled)/kg b. wt., i.p., once), conc.: ≈200 pg AFB₁/mg serum albumin* (mean value), country: UK/Nigeria/Thailand⁶¹⁸, *after 24 h

incidence: 2?/2*, sa. const.: male Wistar

rats, wt.: 200-250 g, contamination: no AFB,, conc.: 0**, country: UK⁶²⁷, *control, **measured by scintillation counting incidence: 2?/2*, sa. const.: male Wistar rats, wt.: 200-250 g, contamination: no AFB,, conc.: 0**, country: UK⁶²⁷, *control, **measured by ELISA incidence: 2?/2, sa. const.: male Wistar rats, wt.: 200-250 g, contamination: artificial (dose: 10 µg AFB, (labeled)/kg b. wt., i.p., once), conc.: 132 pg AFB,-lysine eq/mg albumin* **, country: UK627, *measured by scintillation counting, **after 24 h incidence: 2?/2, sa. const.: male Wistar rats, wt.: 200-250 g, contamination: artificial (dose: 10 µg AFB, (labeled)/kg b. wt., i.p., once), conc.: 59 pg AFB, -lysine eq/mg albumin* **, country: UK627, *measured by ELISA, **after 24 h incidence: 2?/2, sa. const.: male Wistar rats, wt.: 200-250 g, contamination: artificial (dose: 50 µg AFB, (labeled)/kg b. wt., i.p., once), conc.: 439 pg AFB, -lysine eq/mg albumin* **, country: UK⁶²⁷, *measured by scintillation counting, **after 24 h

incidence: 2?/2, sa. const.: male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 50 µg AFB₁ (labeled)/kg b. wt., i.p., once), conc.: 326 pg AFB₁-lysine eq/mg albumin* **, country: UK⁶²⁷, *measured by ELISA, **after 24 h incidence: 2?/2, sa. const.: male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 200 µg AFB₁ (labeled)/kg b. wt., i.p., once), conc.: 1,003 pg AFB₁-lysine eq/mg albumin* **, country: UK⁶²⁷, *measured by scintillation counting, **after 24 h

incidence: 2?/2, sa. const.: male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 200 μg AFB₁ (labeled)/kg b. wt., i.p., once), conc.: 1,051 pg AFB₁-lysine eq/mg albumin* **, country: UK⁶²⁷, *measured by ELISA, **after 24 h

AFLATOXIN B

incidence: 4?/4*, sa. const.: male F344 rats, wt.: 75–100 g, contamination: artificial (dose: 250 μ g AFB₁ (labeled)/kg b. wt., by gavage, for 5 days a week for 2 weeks (days 0–4 and 7–11); for detailed information please see the article), conc. range: \approx 562 pmol AFB bound mg albumin** (mean value), country: USA⁶¹¹, *control, *2 days after AFB₁-administration (also at other day intervals up to 16 days measured, lowest conc.: \approx 0.9 pmol AFB bound mg albumin after 16 days)

incidence: 4?/4, sa. const.: male F344 rats, wt.: 75-100 g, contamination: artificial (dose: 250 µg AFB, (labeled)/kg b. wt., by gavage, for 5 days a week for 2 weeks (days 0-4 and 7-11); for detailed information please see the article), conc. range: ≈≤16 pmol AFB bound mg albumin* ** (mean value), country: USA611, *2 days after AFB,-administration (also at other day intervals up to 16 days measured, lowest conc.: ≈0.2 pmol AFB bound mg albumin after 16 days; highest conc.: 25 pmol AFB bound mg albumin, day 3; control values at each day always higher than 1,2-dithiole-3-thione values), **1,2-dithiole-3-thione-diet (0.03%) 1 week before and while AFB,-treatment

AFLATOXIN

incidence: ?/?, sa. const.: male F344 rats, wt.: 100 g, contamination: artificial (dose: 20 µg AFB₁/day, o., daily for 5 weeks), conc. range: ≈≤350 pmol AF adducts/mg albumin* ** *** (mean value), country: USA⁵7, *control without oltipraz (for overall information please see the article), **AF-albumin adducts, ***after 3 weeks of AFB₁-administration (also at

other week intervals up to 14 weeks measured, lowest conc.: ≈100 pmol AF adducts/mg albumin after 1 week of last AFB, -administration) incidence: ?/?, sa. const.: male F344 rats, wt.: 100 g, contamination: artificial (dose: 20 µg AFB,/day, o., daily for 5 weeks), conc. range: ≈≤280 pmol AF adducts/mg albumin* ** *** (mean value), country: USA⁵⁷, *delayed-transient intervention with oltipraz (0.05%) for 2 weeks during AFB, -administration (for overall information please see the article), **AF-albumin adducts, ***after 3 weeks of AFB,-administration (also at other week intervals up to 14 weeks measured, lowest conc.: ≈75 pmol AF adducts/mg albumin after 1 week of last AFB,-administration) incidence: ?/?, sa. const.: male F344 rats, wt.: 100 g, contamination: artificial (dose: 20 µg AFB₁/day, o., daily for 5 weeks), conc. range: ≈≤175 pmol AF adducts/mg albumin* ** *** (mean value), country: USA57, *persistent intervention with oltipraz (0.05%) for 6 weeks during AFB, -administration (for overall information please see the article), **AF-albumin adducts, ***after 2 weeks of AFB, -administration (also at other week intervals up to 14 weeks measured, lowest conc.: ≈75 pmol AF adducts/mg albumin after 1 week of last AFB,administration)

OCHRATOXIN A

incidence: ?/6, sa. const.: male Wistar rats, age: 8–10 weeks, contamination: artificial (dose: 1 mg OTA/kg, injection to the femoral vein, once), conc.: 13.2 µg/ml* ** (mean value), country: Japan¹⁷⁴, *in peripheral serum, **after 30 min

incidence: ?/2 (10)*, sa. const.: Sprague-Dawley male rats, wt.: ≈100 g, contamination: no OTA, conc.: nr, country: USA²¹⁸, *control incidence: ?/2, sa. const.: Sprague-Dawley male rats, wt.: ≈100 g, contamination:

artificial (dose: 1 mg OTA (labeled)/rat, i.p., once), conc. range: ≤178 µg/ml* (mean value), country: USA218, *after 0.5 h (also measured after 2, 4, 8, and 24 h, lowest conc.: 34 μg/ml after 24 h) incidence: ?/2, sa. const.: Sprague-Dawley male rats, wt.: ≈100 g, contamination: artificial (dose: 4 mg OTA/kg b. wt., i.p., once), conc. range: ≤46 µg/ml* (mean value), country: USA218, *after 0.5 h (also measured after 1, 4, 12, 24, and 48 h, lowest conc.: 19 µg/ml after 48 h) incidence: ?/2, sa. const.: Sprague-Dawley male rats, wt.: ≈100 g, contamination: artificial (dose: 8 mg OTA/kg b. wt., i.p., once), conc. range: ≤142 µg/ml* (mean value), country: USA218, *after 0.5 h (also measured after 1 and 24 h, lowest

ZEARALENONE

conc.: 33 µg/ml after 24 h)

incidence: 4?/4, sa. const.: male Sprague-Dawley rats, age: 8-10 weeks, wt.: 230-290 g, contamination: artificial (dose: 2 mg ZEA/kg, i.v., once), conc.: ≈≤850 ng/ml* (mean value), country: Korea⁵⁷⁹, *after 0 h (also after other hour intervals up to 6 h measured, lowest conc.: ≈3 ng/ml after 6 h) incidence: 4?/4, sa. const.: male Sprague-Dawley rats, age: 8-10 weeks, wt.: 230-290 g, contamination: artificial (dose: 16 mg ZEA/kg, o., once), conc.: ≈≤30 ng/ml* (mean value), country: Korea⁵⁷⁹, *after 0 h (also after other hour intervals up to 24 h measured, lowest conc.: ≈7 ng/ml after 24 h)

incidence: 4?/4, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 1 mg ZEA/kg, i.v. bolus injection, once), conc. range: ≈≤450 ng/ml* (mean value), country: Korea/USA⁵⁸⁵, *after 0 h (also after other min and hour intervals up to 6 h measured, lowest conc.: ≈0.25 ng/ml after 6 h) incidence: 4?/4, sa. const.: male Sprague-

incidence: 4?/4, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 2 mg ZEA/ kg, i.v. bolus injection, once), conc. range: ≈≤850 ng/ml* (mean value), country: Korea/USA585, *after 0 h (also after other min and hour intervals up to 6 h measured, lowest conc.: ≈1 ng/ml after 6 h) incidence: 4?/4, sa. const.: male Sprague-Dawley rats, age: 8-10 weeks, wt.: 230-290 g, contamination: artificial (dose: 4 mg ZEA/ kg, i.v. bolus injection, once), conc. range: ≈≤1,100 ng/ml* (mean value), country: Korea/USA585, *after 0 h (also after other min and hour intervals up to 9 h measured, lowest conc.: ≈0.5 ng/ml after 9 h) incidence: 4?/4, sa. const.: male Sprague-Dawley rats, age: 8-10 weeks, wt.: 230-290 g, contamination: artificial (dose: 8 mg ZEA/ kg, i.v. bolus injection, once), conc. range: ≈≤1,400 ng/ml* (mean value), country: Korea/USA585, *after 0 h (also after other min and hour intervals up to 9 h measured, lowest conc.: ≈1 ng/ml after 9 h) incidence: 6?/6, sa. const.: male Sprague-Dawley rats, age: 8-10 weeks, wt.: 230-290 g, contamination: artificial (dose: 8 mg ZEA/kg, o., once), conc. range: \approx ≤4.5 ng/ml* ** (mean value), country: Korea/USA⁵⁸⁵, *after ≈0 h (also after other min and hour intervals up to 24 h measured, lowest conc.: ≈0.5 ng/ml after 24 h), **in intact rats incidence: 3?/3, sa. const.: male Sprague-Dawley rats, age: 8-10 weeks, wt.: 230-290 g, contamination: artificial (dose: 8 mg ZEA/kg, o., once), conc. range: ≈≤6.6 ng/ml* ** (mean value), country: Korea/USA⁵⁸⁵, *after ≈0 h (also after other min and hour intervals up to 12 h measured, lowest conc.: ≈0.6 ng/ml after 12 h), **in bile duct-cannulated rats incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8-10 weeks, wt.: 230-290 g, contamination: artificial (dose: **1.13 mg ZEA/h/kg**, i.v., for 6 h), Ø conc.: 258.2 ng/ml* (mean value), country: Korea/USA585, *after 6 h of ZEA-administration incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8-10 weeks,

wt.: 230–290 g, contamination: artificial (dose: 2.25 mg ZEA/h/kg, i.v., for 6 h), Ø conc.: 553.3 ng/ml* (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEA-administration

Rat spleen may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 1.13 mg ZEA/h/kg, i.v., for 6 h), conc.: ≈150 ng/g* (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEA-administration

incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 2.25 mg ZEA/h/kg, i.v., for 6 h), conc.: ≈250 ng/g* (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEA-administration

Rat stomach may contain the following mycotoxins and/or their metabolites:

Fusaric Acid

incidence: 3?/3*, sa. const.: F1 generation of Sprague-Dawley rats, age: 4 days, contamination: no FA fed to dams (F0) (for detailed information please see the article), conc.: 18.00 ng/100 mg stomach colostrum** *** (mean value), country: USA258, *control, **background conc. of FA in control diet (<0.3 ppm), ***on day 4 postpartum incidence: 4?/4, sa. const.: F1 generation of Sprague-Dawley rats, age: 4 days, contamination: artificial (dose: dams (F0) 10 ppm FA from days 11-12 of gestation, through parturition and weaning; for detailed information please see the article), conc.: 80.00 ng/100 mg stomach colostrum* (mean value), country: USA²⁵⁸, *on day 4 postpartum incidence: 4?/4, sa. const.: F1 generation of Sprague-Dawley rats, age: 4 days,

contamination: artificial (dose: dams (F0) 75 ppm FA from days 11-12 of gestation, through parturition and weaning; for detailed information please see the article), conc.: 1,449.00 ng/100 mg stomach colostrum* (mean value), country: USA²⁵⁸, *on day 4 postpartum incidence: 4?/4, sa. const.: F1 generation of Sprague-Dawley rats, age: 4 days, contamination: artificial (dose: dams (F0) 200 ppm FA from days 11-12 of gestation, through parturition and weaning; for detailed information please see the article), conc.: 3,547.00 ng/100 mg stomach colostrum* (mean value), country: USA²⁵⁸, *on day 4 postpartum

OCHRATOXIN A

incidence: 3/3 or more*, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: no OTA, conc.: nr, country: Japan¹⁴³, *control incidence: ?/3–4, sa. const.: adult male Wistar rats, wt.: 200–250 g, contamination: artificial (dose: 15 mg OTA (labeled)/kg, o., once), conc. range: ≈≤34.5 μg/g wet wt. of tissue* (mean value), country: Japan¹⁴³, *after 1 h (also at other hour intervals up to 24 h measured, lowest conc.: ≈4 μg/g wet weight of tissue after 24 h)

incidence: 3?/3, sa. const.: male Wistar rats, age: 8–10 weeks, contamination: artificial (dose: 1.4 mg OTA/kg, injected into the femoral vein, once; for detailed information please see the article), conc.: <65.0 ng/stomach/10 min* (mean value), country: Japan¹⁷⁴, *in stomach perfusate

ZEARALENONE

incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 1.13 mg ZEA/h/kg, i.v., for 6 h), conc.: ≈200 ng/g* (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEA-administration incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial

(dose: 2.25 mg ZEA/h/kg, i.v., for 6 h), conc.: ≈600 ng/g* (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEAadministration

Rat testes may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 1.13 mg ZEA/h/kg, i.v., for 6 h), conc.: ≈50 ng/g* (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEA-administration incidence: ?/?, sa. const.: male Sprague-Dawley rats, age: 8–10 weeks, wt.: 230–290 g, contamination: artificial (dose: 2.25 mg ZEA/h/kg, i.v., for 6 h), conc.: ≈150 ng/g* (mean value), country: Korea/USA⁵⁸⁵, *after 6 h of ZEA-administration

Rat trachea may contain the following mycotoxins and/or their metabolites:

AFLATOXINS

incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (dust-adsorbed), once; for detailed information please see the article), conc.: ≤15.762 nmol AFs/g tissue (x 10⁻³)*, country: USA⁶⁰⁴, *after 3 h (also measured after 3 days and 3 weeks, lowest conc.: 0.031 nmol AFs/g tissue (x 10⁻³) after 3 weeks) incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/ kg AFB, (labeled)/kg, i.t. (microcrystalline form), once; for detailed information please see the article), conc.: ≤1.461 nmol AFs/g tissue (x 10⁻³)*, country: USA⁶⁰⁴, *after 3 h (also measured after 3 days and 3 weeks, lowest conc.: 0.0401 nmol AFs/g tissue (x10⁻³) after 3 weeks)

Rat urine may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/4, sa. const.: male Fischer rats, wt.: 100-110 g, contamination: artificial (dose: 0.03 mg AFB,/kg, i.p., once; for detailed information please see the article), conc.: ≈0.25 ng/kg* **, country: USA52, *within 24 h, **exo-AFB, -NAC incidence: ?/4, sa. const.: male Fischer rats, wt.: 100-110 g, contamination: artificial (dose: ≈0.18 mg AFB,/kg, i.p., once; for detailed information please see the article), conc.: ≈1.7 ng/kg* **, country: USA52, *within 24 h, **exo-AFB, -NAC incidence: ?/4, sa. const.: male Fischer rats, wt.: 100-110 g, contamination: artificial (dose: 0.8 mg AFB,/kg, i.p., once; for detailed information please see the article), conc.: ≈8 ng/kg* **, country: USA52, *within 24 h, **exo-AFB,-NAC

incidence: 2/3*, sa. const.: male adult Long-Evans rats, wt.: 270-320 g, contamination: no AFB, conc. range: $0.48^{**}-0.53^{***}$ mg $\times 10^{-3}$, country: Taiwan, Republic of China¹³², *control, after 24** or 48*** h (also measured after 72 h, but conc.: nd) incidence: 2/2, sa. const.: male adult Long-Evans rats, wt.: 270-320 g, contamination: artificial (dose: 5.0 mg AFB,/kg b. wt., i.p., once), conc. range: $14.4-20.4 \text{ mg x } 10^{-3}*, \emptyset \text{ conc.}$: 17.4 mg x 10⁻³*, country: Taiwan, Republic of China¹³², *after 24 h (also measured after 48 and 72 h, but lower residue values recorded) incidence: 1/1, sa. const.: male adult Long-Evans rat, wt.: 270-320 g, contamination: artificial (dose: 5.5 mg AFB,/kg b. wt., i.p., once), conc.: 33 mg x 10⁻³*, country: Taiwan, Republic

incidence: 3?/3, sa. const.: male F344 rats, wt.: 100–125 g, contamination: artificial

of China¹³², *after 24 h (also measured

after 48 and 72 h, but conc.: nd)

(dose: 400 μ g AFB₁ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: 1.00 pmol/mg creatinine* ** (mean value), country: USA¹⁴², *after 24 h, **AFB₁-N7-Gua

incidence: 4/4*, sa. const.: male Fisher 344 rats, wt.: 150–220 g, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: India¹⁶⁸, *control incidence: ?/?, sa. const.: male Fisher 344 rats, wt.: 150–220 g, contamination: artificial (dose: 1.0 mg AFB₁/kg b. wt., by gavage, once; for detailed information please see the article), conc. range: 3.22–5.97 µg NAC-AFB₁/mg creatinine* (mean values), country: India¹⁶⁸, *after 24 h

incidence: ?/8, sa. const.: male F₃₄₄ rats, wt.: 100-150 g, contamination: artificial (dose: 20 μg AFB, by gavage, daily for 28 days; for detailed information please see the article), conc.: 8.2 ng AFB₁-NAC/mg creatinine* ** (mean value), country: USA176, *control, 1 higher value (10.0 ng AFB, -NAC/mg creatinine) on day 21 is recorded, **after 35 days of AFB, administration (also at other day intervals up to 39 days measured, lowest conc.: 1.0 ng AFB, -NAC/ mg creatinine after 39 days) incidence: ?/8, sa. const.: male F₃₄₄ rats, wt.: 100-150 g, contamination: artificial (dose: 20 µg AFB, by gavage, daily for 28 days; for detailed information please see the article), conc. range: ≤0.8 ng AFB,-NAC/mg creatinine* ** (mean value), country: USA176, *oltipraz-diet (0.05%) for 5 weeks prior to AFB,-treatment, **after 35 days of AFB₁-administration (also at other day intervals up to 39 days measured, lowest conc.: 0.2 ng AFB, -NAC/ mg creatinine after 39 days)

incidence: 8/8*, sa. const.: Fischer 344 strain rats, wt.: 180–250 g, contamination: no AFB₁, conc.: nd**, country: India⁴³⁷, *control, **AFB₁-N'-Gua adducts

incidence: ?/8, sa. const.: Fischer 344 strain rats, wt.: 180-250 g, contamination: artificial (dose: 1 mg AFB₁/kg b. wt., by gavage, once), conc. range: 6.42-20.16 µg/mg creatinine* ** (mean values), country: India⁴³⁷, *AFB₁- N^7 -Gua adducts, **after 48 h

incidence: ?/4, sa. const.: young male F344 rats, wt.: 120–140 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., daily for 3 weeks), conc. range: ≤96.7 ng/mg creatinine* ** *** (mean value), country: USA/People's Republic of China⁴⁹³, *control (for overall information please see the article), **AFB,-N⁷-Gua adducts, ***after 1 day while treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈10 ng/mg creatinine after 9 days) incidence: ?/4, sa. const.: young male F344 rats, weight: 120-140 g, contamination: artificial (dose: 250 μg AFB,/kg b. wt., daily for 3 weeks), conc. range: ≈27 ng/mg creatinine* ** *** **** (mean value), country: USA/People's Republic of China⁴⁹³, *lycopene-treatment (100 mg/kg b. wt.) after each AFB,-administration (for overall information please see the article), **AFB₁-N⁷-Gua adducts, ***after 1 day while treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈5 ng/mg creatinine after 9 days), ****2 higher values (both ≈31 ng/mg creatinine) on day 5 and 15 recorded incidence: ?/4, sa. const.: young male F344 rats, wt.: 120–140 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., daily for 3 weeks), conc. range: ≤13.7 ng/mg creatinine* ** *** (mean value), country: USA/People's Republic of China⁴⁹³, *control (for overall information please see the article), **AFB-NAC, ***after 3 days while treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈4 ng/mg creatinine after 15 days)

incidence: ?/4, sa. const.: young male F344 rats, wt.: 120–140 g, contamination: artificial (dose: 250 µg AFB₁/kg b. wt., daily for 3 weeks), conc. range: ≤15.9 ng/mg creatinine* ** (mean value), country: USA/People's Republic of China⁴⁹³, *lycopene-treatment (100 mg/kg b. wt.) after each AFB₁-administration (for overall information please see the article), **AFB-NAC, ***after 3 days while treatment (also at other days up to 15 days measured, lowest conc.: ≈8 ng/mg creatinine after 12 days)

incidence: ?/5–6, sa. const.: male African giant rats, wt.: 1.5–2.0 kg, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 61 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment incidence: ?/5–6, sa. const.: male weanling Wistar-derived rats, wt.: 250 g, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 142 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

incidence: ?/3, sa. const.: male Fischer rats, age: 4 weeks, wt.: 140-170 g, contamination: artificial (dose: 0.125 mg AFB,/kg, i.p., once; for detailed information please see the article), conc.: \approx 70 ng*, country: USA⁵⁹⁸, *AFB₁-N⁷-Gua² excreted in 48 h incidence: ?/3, sa. const.: male Fischer rats, age: 4 weeks, wt.: 140-170 g, contamination: artificial (dose: 0.25 mg AFB,/kg, i.p., once; for detailed information please see the article), conc.: ≈180 ng*, country: USA⁵⁹⁸, *AFB₁-N⁷-Gua² excreted in 48 h incidence: ?/3, sa. const.: male Fischer rats, age: 4 weeks, wt.: 140-170 g, contamination: artificial (dose: 0.5 mg AFB₁/kg, i.p., once; for detailed information please see the article), conc.: ≈215 ng*, country: USA⁵⁹⁸, *AFB₁-N⁷-Gua² excreted in 48 h

incidence: ?/3, sa. const.: male Fischer rats, age: 4 weeks, wt.: 140–170 g, contamination: artificial (dose: 1.0 mg AFB₁/kg, i.p., once; for detailed information please see the article), conc.: ≈765 ng*, country: USA⁵⁹⁸, *AFB₁-N'-Gua² excreted in 48 h

incidence: 4?/4*, sa. const.: male F344 rats, wt.: 75-100 g, contamination: artificial (dose: 250 µg AFB, (labeled)/kg b. wt., by gavage, for 5 days a week for 2 weeks (days 0-4 and 7-11); for detailed information please see the article), conc. range: ≈≤45 pmol AFB-N⁷-Gua³/mg creatinine** (mean value), country: USA611, *control, *2 days after AFB,administration (also at other day intervals up to 16 days measured, lowest conc.: nd after 16 days) incidence: 4?/4, sa. const.: male F344 rats, wt.: 75-100 g, contamination: artificial (dose: 250 µg AFB, (labeled)/kg b. wt., by gavage, for 5 days a week for 2 weeks (days 0-4 and 7-11); for detailed information please see the article), conc. range: ≈≤16 pmol AFB-N⁷-Gua³/mg creatinine* ** (mean value), country: USA611, *2 days after AFB,administration (also at other day intervals up to 16 days measured, lowest conc.: nd after 14 days; control values at each day always higher than 1,2-dithiole-3-thione values), **1,2-dithiole-3-thionediet (0.03%) 1 week before and while AFB,-treatment

incidence: 4?/4*, sa. const.: male F344 rats, age: 21 days, contamination: artificial (dose: 250 µg AFB₁ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: ≈ 325 pmol** *** (mean value), country: USA⁶²¹, *control, **AFB- N^7 -Gua³, ***after 0–24 h incidence: 4?/4, sa. const.: male F344 rats, age: 21 days, contamination: artificial (dose: 250 µg AFB₁ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: ≈ 105 pmol** *** (mean value), country: USA⁶²¹,

*oltipraz-diet (0.075%) for 7 days prior to AFB_1 -treatment, ** $AFB-N^7$ -Gua³, ***after 0–24 h

AFLATOXIN B

incidence: ?/8, sa. const.: male F₃₄₄ rats, wt.: 100-150 g, contamination: artificial (dose: 20 µg AFB,, by gavage, daily for 28 days; for detailed information please see the article), conc.: 3.6 ng AFB-N⁷-Gua/mg creatinine* ** (mean value), country: USA176, *control, 2 higher values (3.8 and 3.9 ng AFB-N7-Gua/mg creatinine*) on day 28 and day 35 recorded, **after 21 days of AFB, -administration (also at other day intervals up to 39 days measured, lowest conc.: 0.9 ng AFB-N⁷-guanine/mg creatinine after 39 days) incidence: ?/8, sa. const.: male F₃₄₄ rats, wt.: 100-150 g, contamination: artificial (dose: 20 μg AFB, by gavage, daily for 28 days; for detailed information please see the article), conc. range: ≤ 1.0 ng AFB- N^7 -Gua/ mg creatinine* ** (mean value), country: USA¹⁷⁶, *oltipraz diet (0.05%) fed for 5 weeks prior to AFB, treatment, **after 21 days of AFB, -administration (also at other day intervals up to 39 days measured, lowest conc.: 0.3 ng AFB-N⁷-Gua/mg creatinine after 39 days)

incidence: 4?/4*, sa. const.: male F344 rats, wt.: 75-100 g, contamination: artificial (dose: 250 μg AFB, (labeled)/kg b. wt., by gavage, for 5 days a week for 2 weeks (days 0-4 and 7-11); for detailed information please see the article), conc. range: ≈≤4.7 nmol AFB eq mg creatinine** (mean value), country: USA611, *control, *3 days after AFB₁-administration (also at other day intervals up to 14 days measured, lowest conc.: 0.85 nmol AFB eq mg creatinine after 7 days) incidence: 4?/4, sa. const.: male F344 rats, wt.: 75-100 g, contamination: artificial (dose: 250 µg AFB, (labeled)/kg b. wt., by gavage, for 5 days a week for 2 weeks (days 0-4 and 7-11); for detailed information please see the article), conc.

range: ≈3.7 nmol AFB eq mg creatinine* ** (mean value), country: USA⁶¹¹,
*3 days after AFB₁-administration (also at other day intervals up to 14 days measured, lowest conc.: 0.8 nmol AFB eq mg creatinine after 7 days; highest conc.: 3.7 nmol AFB eq mg creatinine, day 4),
**1,2-dithiole-3-thione-diet (0.03%)
1 week before and while AFB₁-treatment

AFLATOXIN M,

incidence: 3?/3, sa. const.: male F344 rats, wt.: 100-125 g, contamination: artificial (dose: $400 \mu g AFB_1$ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: $0.29 \mu mol/mg$ creatinine* ** (mean value), country: USA^{142} , *after 24 h, **AFM₁-N'-Gua

incidence: ?/8, sa. const.: male F₃₄₄ rats, wt.: 100-150 g, contamination: artificial (dose: 20 µg AFB,, by gavage, daily for 28 days; for detailed information please see the article), conc.: 8.5 ng/mg creatinine* ** (mean value), country: USA¹⁷⁶, *control, several higher values up to 15.7 ng/mg creatinine after 28 days were recorded, **after 7 days of AFB, -administration (also at other day intervals up to 39 days measured, lowest conc.: 2.0 ng/mg creatinine after 39 days) incidence: ?/8, sa. const.: male F₃₄₄ rats, wt.: 100-150 g, contamination: artificial (dose: 20 µg AFB, by gavage, daily for 28 days; for detailed information please see the article), conc. range: ≤1.5 ng/mg* creatinine* ** (mean value), country: USA¹⁷⁶, *oltipraz-diet (0.05%) for 5 weeks prior to AFB,-treatment, **after 7 days of AFB, -administration (also at other day intervals up to 39 days measured, lowest conc.: 0.05 ng/mg creatinine after 39 days)

incidence: ?/4, sa. const.: young male F344 rats, wt.: 120–140 g, contamination: artificial (dose: 250 µg AFB₁/kg b. wt., daily for 3 weeks), conc. range: ≤166.1 ng/mg creatinine* ** (mean value), country: USA/People's Republic of China⁴⁹³, *control (for overall

information please see the article), **after 5 days while treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈105 ng/mg creatinine after 1 day) incidence: ?/4, sa. const.: young male F344 rats, wt.: 120-140 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., daily for 3 weeks), conc. range: ≈≤160 ng/mg creatinine* ** (mean value), country: USA/People's Republic of China⁴⁹³, *lycopene-treatment (100 mg/kg b. wt.) after each AFB, -administration (for overall information please see the article), **after 5 days while treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈78 ng/mg creatinine after 1 day)

incidence: 3?/3*, sa. const.: male Fischer-344 rats, age: 6 weeks, contamination: artificial (dose: 0.125 mg AFB,/kg b. wt., o.; for detailed information please see the article), conc.: 1.32 µg total** (mean value), country: USA522, *control, **cumulative value of 36 h collection (measured after 6, 24, 36, and 48 h) incidence: 3?/3*, sa. const.: male Fischer-344 rats, age: 6 weeks, contamination: artificial (dose: 0.125 mg AFB,/kg b. wt., o.; for detailed information please see the article), conc.: 0.07 µg total** (mean value), country: USA522, *HSCAS-diet (0.5%) prior to AFB,-treatment, **cumulative value of 36 h collection (measured after 6, 24, 36, and 48 h) incidence: 3?/3*, sa. const.: male Fischer-344 rats, age: 6 weeks, contamination: artificial (dose: 0.25 mg AFB,/kg b. wt., o.; for detailed information please see the article), conc.: 2.12 µg total** (mean value), country: USA522, *control, **cumulative value of 36 h collection (measured after 6, 24, 36, and 48 h) incidence: 3?/3*, sa. const.: male Fischer-344 rats, age: 6 weeks, contamination: artificial (dose: 0.25 mg AFB,/kg b. wt., o.; for detailed

information please see the article), conc.: 0.17 µg total** (mean value), country: USA522, *HSCAS-diet (0.5%) prior to AFB,-treatment, **cumulative value of 36 h collection (measured after 6, 24, 36, and 48 h) incidence: 3?/3*, sa. const.: male Fischer-344 rats, age: 6 weeks, contamination: artificial (dose: 0.5 mg AFB,/kg b. wt., o.; for detailed information please see the article), conc.: 1.78 µg total** (mean value), country: USA⁵²², *control, **cumulative value of 36 h collection (measured after 6, 24, 36, and 48 h) incidence: 3?/3*, sa. const.: male Fischer-344 rats, age: 6 weeks, contamination: artificial (dose: 0.5 mg AFB,/kg b. wt., o.; for detailed information please see the article), conc.: 0.50 µg total** (mean value), country: USA522, *HSCAS-diet (0.5%) prior to AFB,-treatment, **cumulative value of 36 h collection (measured after 6, 24, 36, and 48 h) incidence: 3?/3*, sa. const.: male Fischer-344 rats, age: 6 weeks, contamination: artificial (dose: 1 mg AFB,/kg b. wt., o.; for detailed information please see the article), conc.: 2.51 µg total** (mean value), country: USA⁵²², *control, **cumulative value of 36 h collection (measured after 6, 24, 36, and 48 h) incidence: 3?/3*, sa. const.: male Fischer-344 rats, age: 6 weeks, contamination: artificial (dose: 1 mg AFB₁/kg b. wt., o.; for detailed information please see the article), conc.: 1.04 μg total** (mean value), country: USA522, *HSCAS-diet (0.5%) prior to AFB,-treatment, **cumulative value of 36 h collection (measured after 6, 24, 36, and 48 h)

incidence: ?/5–6, sa. const.: male African giant rats, wt.: 1.5–2.0 kg, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information

please see the article), conc.: 48 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

incidence: ?/5–6, sa. const.: male weanling Wistar-derived rats, wt.: 250 g, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 20 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

AFLATOXIN P,

incidence: ?/4, sa. const.: young male F344 rats, wt.: 120-140 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., daily for 3 weeks), conc. range: ≤210.4 ng/mg creatinine* ** (mean value), country: USA/People's Republic of China⁴⁹³, *control (for overall information please see the article), **after 12 days while treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈40 ng/mg creatinine after 3 days) incidence: ?/4, sa. const.: young male F344 rats, wt.: 120-140 g, contamination: artificial (dose: 250 µg AFB,/kg b. wt., daily for 3 weeks), conc.: ≈25 ng/mg creatinine* ** *** (mean value), country: USA/People's Republic of China⁴⁹³, *lycopene-treatment (100 mg/kg b. wt.) after each AFB,-administration (for overall information please see the article), **after 12 days while treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈10 ng/mg creatinine after 1 day), ***2 higher values on day 5 (≈55 ng/mg creatinine) and on day 15 (≈100 ng/mg creatinine) recorded

AFLATOXIN Q,

incidence: ?/4, sa. const.: young male F344 rats, wt.: 120–140 g, contamination: artificial (dose: 250 µg AFB₁/kg b. wt., daily for 3 weeks), conc. range: ≤31.7 ng/mg creatinine* ** (mean value), country: USA/People's Republic of China⁴⁹³, *control (for overall information please see the article), **after 12 days while the treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈1 ng/mg creatinine after 3 days)

incidence: ?/4, sa. const.: young male F344 rats, wt.: 120–140 g, contamination: artificial (dose: 250 µg AFB₁/kg b. wt., daily for 3 weeks), conc. range: ≈3 ng/mg creatinine* ** *** (mean value), country: USA/People's Republic of China⁴⁹³, *lycopene-treatment (100 mg/kg b. wt.) after each AFB₁-administration (for overall information please see the article), **after 12 days while treatment (also at other day intervals up to 15 days measured, lowest conc.: ≈0.5 ng/mg creatinine after 5 days), ***1 higher value (≈18 ng/mg creatinine) on day 15 recorded

incidence: ?/5–6, sa. const.: male African giant rats, wt.: 1.5–2.0 kg, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 180 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment incidence: ?/5–6, sa. const.: male weanling Wistar-derived rats, wt.: 250 g, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc.: 171 ng/g liver*, country: Nigeria⁵⁹³, *after ≈8 h of treatment

AFLATOXIN

incidence: 2/2, sa. const.: adult male Fischer 344 rats, contamination: artificial (dose: 1 mg AFB₁ (labeled)/kg b. wt., i.p., once; for detailed information please see the article), conc. range: 16.0–17.0 pmol AF eq* **, Ø conc.: 16.5 pmol AF eq* **, country: USA/People's Republic of China⁵⁹, *mainly AFM₁, AFB₁-N⁷-Gua² adduct, AFP₁, and AFB₁ (in decreasing quantity), **urine was collected for 20 h

incidence: 2/2, sa. const.: adult male rats, age:, contamination: artificial (dose: 1 mg AFB $_1$ (labeled)/kg b. wt., injected, once), conc. range: 290–310 ng/100 μ l*, Ø conc.: 300 ng/100 μ l*, country: USA 100 , *urine was collected for 20 h

AFLATOXINS

incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g,

contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (dust-adsorbed), once; for detailed information please see the article), conc.: ≈≤11.4 nmol AFs/day*, country: USA604, *after 1 day (also at other day intervals up to 21 days measured, lowest conc.: nd after 21 days) incidence: ?/5, sa. const.: male Sprague-Dawley rats, Ø wt.: 242.2 g, contamination: artificial (dose: 300 µg/kg AFB, (labeled)/kg, i.t. (microcrystalline form), once; for detailed information please see the article), conc.: ≈≤11.5 nmol AFs/day*, country: USA⁶⁰⁴, *after 1 day (also at other day intervals up to 21 days measured, lowest conc.: nd after 21 days)

Fumonisin B_1 incidence: ?/5, sa. const.: rats, contamination: artificial (dose: 1,000 µg FB₁/g, o., once; for detailed information please see the article), conc. range: 0.1–2.0 µg/g (mean value), country: USA²⁷⁶

OCHRATOXIN A

incidence: 3 or more/3 or more*, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: no OTA (for detailed information please see the article), conc.: nr, country: Canada¹⁴⁴, *control incidence: 3?/3, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: artificial (dose: 100 µg OTA/rat, i.v., once; for detailed information please see the article), conc.: 5.9 nmol/ml (mean value), country: Canada¹⁴⁴

incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83–110 g, contamination: no OTA, diet B-II (for detailed information please see the article), conc.: nd, country: Canada²⁰⁹, *control incidence: ?/10, sa. const.: Wistar male rats, wt.: 83–110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily for 6 days (diet B-I); for detailed information please see the article), conc.: pr*, country: Canada²⁰⁹, *measured at day 1, 2, 3, 4, 5, and 6? of OTA-administration

incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: no OTA, diet NMB (for detailed information please see the article), conc.: nd, country: Canada²⁰⁹, *control incidence: 6?/6, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily for 6 days (diet NMB+T); for detailed information please see the article), conc. range: ≤43 µg/rat/day* (mean value), country: Canada²⁰⁹, *measured on day 5 of OTAadministration (also measured at day 1, 2, 3, 4, and 6, lowest conc.: approximately 4 µg/rat/day on day 1)

incidence: ?/2 (10)*, sa. const.: Sprague-Dawley male rats, wt.: \approx 100 g, contamination: no OTA, conc.: nr, country: USA²¹⁸, *control incidence: ?/2, sa. const.: Sprague-Dawley male rats, wt.: \approx 100 g, contamination: artificial (dose: 1 mg OTA (labeled)/rat, i.p., once), conc. range: \le 223 µg* OTA content (mean value), country: USA²¹⁸, *after 24 h (also measured after 2, 4, and 8 h, lowest conc.: 45 µg OTA after 2 h)

incidence: ?/3, sa. const.: male Wistar rats, age: 6 weeks, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., for 6 days), conc.: 0.36 µmol/l* (mean value), country: Germany⁵⁶¹, *after 24 h of final administration incidence: ?/3, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., i.p., for 6 days), conc.: 0.36 µmol/l* (mean value), country: Germany⁵⁶¹, *after 24 h of final administration incidence: ?/3, sa. const.: male Wistar rats, age: 2 years, contamination: artificial (dose: 1.25 mg OTA/kg b. wt., i.p., once), conc.: 22.4 µmol/l* (mean value), country: Germany⁵⁶¹, *after 2 h

incidence: 1–3?/1–3, sa. const.: **normal** Sprague-Dawley rats, age: 9–10 weeks, contamination: artificial (dose: **4.1 mg OTA**/kg, by injection, once), conc. range:

≈≤1 µg/ml?* (mean value), country: Japan⁶¹³, *after 30 min collection period (also measured after 30–60 and 60–90 min collection period, lowest conc.: <0.5 µg/ml after 60–90 min) incidence: 2?/2, sa. const.: albumindeficient Sprague-Dawley rats, age: 9–10 weeks, contamination: artificial (dose: 4.1 mg OTA/kg, by injection, once), conc.: ≈≤165 µg/ml* (mean value), country: Japan⁶¹³, *after 30 min collection period (also measured after 30–60 and 60–90 min collection period, lowest conc.: ≈15 µg/ml after 60–90 min)

OCHRATOXIN (A.

incidence: 3 or more/3 or more*, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈ 300 g, contamination: no OT α (for detailed information please see the article), conc.: nr, country: Canada¹⁴⁴, *control incidence: 3?/3, sa. const.: healthy female Sprague-Dawley rats, weight: ≈ 300 g, contamination: artificial (dose: 100 µg OT α /rat, i.v., once; for detailed information please see the article), conc.: 25.4 nmol/ml (mean value), country: Canada¹⁴⁴

incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: no OTA, diet B-II (for detailed information please see the article), conc.: nd, country: Canada²⁰⁹, *control incidence: ?/10, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily for 6 days (diet B-I); for detailed information please see the article), conc.: pr*, country: Canada²⁰⁹, *measured at day 1, 2, 3, 4, 5, and 6? of OTA-administration incidence: 10/10*, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: no OTA, diet NMB (for detailed information please see the article), conc.: nd, country: Canada²⁰⁹, *control incidence: 6?/6, sa. const.: Wistar male rats, wt.: 83-110 g, contamination: artificial (dose: 500 µg OTA, intubated, daily for 6 days (diet NMB+T); for detailed information please see the

article), conc.: nd, country: Canada²⁰⁹, *measured at day 1, 2, 3, 4, 5, and 6

Lactone Opened Ochratoxin A incidence: 3 or more/3 or more*, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: no OP-OTA (for detailed information please see the article), conc.: nr, country: Canada¹⁴⁴, *control incidence: 3?/3, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: artificial (dose: 100 μg OP-OTA/rat, i.v., once; for detailed information please see the article), conc.: 3.9 nmol/ml (mean value), country: Canada¹⁴⁴

4-Hydroxyochratoxin A incidence: 3 or more/3 or more*, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: no OTA-OH (for detailed information please see the article), conc.: nr, country: Canada¹⁴⁴, *control incidence: 3?/3, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: artificial (dose: 100 μg OTA-OH/rat, i.v., once; for detailed information please see the article), conc.: 27.2 nmol/ml (mean value), country: Canada¹⁴⁴

OCHRATOXIN B

incidence: 3 or more/3 or more*, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: no OTB (for detailed information please see the article), conc.: nr, country: Canada¹⁴⁴, *control

incidence: 3?/3, sa. const.: healthy female Sprague-Dawley rats, wt.: ≈300 g, contamination: artificial (dose: 100 µg OTB/rat, i.v., once; for detailed information please see the article), conc.: 3.9 nmol/ml (mean value), country: Canada¹⁴⁴

ZEARALENONE

incidence: ?/6, sa. const.: female weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g diet (daily)

in combination with a casein-based semipurified diet for 2 weeks; for detailed information please see the article), conc.: 209.6 µg* (mean value), country: Canada⁴⁰², *excreted in 48 h following dosing incidence: ?/6, sa. const.: female weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g diet (daily) in combination with a casein-based semipurified diet for 2 weeks; for detailed information please see the article), conc.: 95.0 µg* ** (mean value), country: Canada⁴⁰², *excreted in 48 h following dosing, **ZEA-Gluc

α-Zearalenol

incidence: ?/6, sa. const.: female weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g diet (daily) in combination with a casein-based semipurified diet for 2 weeks; for detailed information please see the article), conc.: 34.5 μg* (mean value), country: Canada402, *excreted in 48 h following dosing incidence: ?/6, sa. const.: female weanling Wistar rats, contamination: artificial (dose: 250 µg crystalline ZEA/g diet (daily) in combination with a caseinbased semipurified diet for 2 weeks; for detailed information please see the article), conc.: 11.4 µg* ** (mean value), country: Canada⁴⁰², *excreted in 48 h following dosing, **α-ZEAOL-Gluc

B-Zearalenol

incidence: ?/6, sa. const.: female weanling Wistar rats, contamination: artificial (dose: 250 μg crystalline ZEA/g diet (daily) in combination with a casein-based semipurified diet for 2 weeks; for detailed information please see the article), conc.: 19.0 μg* (mean value), country: Canada⁴⁰², *excreted in 48 h following dosing incidence: ?/6, sa. const.: female weanling Wistar rats, contamination: artificial (dose: 250 μg crystalline ZEA/g diet (daily) in combination with a casein-based semipurified diet for 2 weeks; for detailed information please

see the article), conc.: 1.5 µg* ** (mean value), country: Canada⁴⁰², *excreted in 48 h following dosing, **β-ZEAOL-Gluc

Salmon see Fish (salmon)

Sheep

Sheep Natural Contamination

Sheep milk, raw may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M,

incidence: 8/12*, sa. const.: milk from sheeps of Greece, contamination: natural, conc. range: 5–10 ng/l (3 sa), 11–20 ng/l (3 sa), 21–50 ng/l (2 sa), country: Greece²⁴⁶, *from December 1999 to May 2000 incidence: 11/15*, sa. const.: milk from sheeps of Greece, contamination: natural, conc. range: 5–10 ng/l (6 sa), 11–20 ng/l (3 sa), 21–50 ng/l (1 sa), 53 ng/l (1 sa), country: Greece²⁴⁶, *from December 2000 to May 2001

Sheep/goat milk, raw may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M_1 incidence: 7/17, sa. const.: milk from sheeps and goats of Italy, contamination: natural, conc. range: 6–31 ng/kg, country: Italy¹⁶¹

Sheep urine may contain the following mycotoxins and/or their metabolites:

ZEARALANOLS

incidence: 39/80*, sa. const.: urine from sheeps of New Zealand, contamination: natural, conc. range: ≤2.1 ng/ml**, country: New Zealand²³⁰, *export animals, **most probable of *Fusarium* origin

ZEARALENOLS

incidence: 39/80*, sa. const.: urine from sheeps of New Zealand, contamination: natural, conc. range: ≤86 ng/ml, country: New Zealand²³⁰, *export animals

Sheep Artificial Contamination

Sheep bile may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 44–70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v., once; for detailed information please see the article), conc.: <0.1 mg* **, country: Canada⁶³, *cumulative value, **collected and measured up to 36 h after DON-administration

incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 48–70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc.: <0.1 mg* **, country: Canada⁶³, *cumulative value, **collected and measured up to 36 h after DON-administration

incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 44–70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v., once; for detailed information please see the article), conc.: <0.1 mg* *** ****, country: Canada⁶³, *DON-Gluc, **cumulative value, ***collected and measured up to 36 h after DON-administration

incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 48–70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc.: <0.1 mg* *****, country: Canada⁶³, *DON-Gluc, **cumulative value, ****collected and measured up to 36 h after DON-administration

DEEPOXYDEOXYNIVALENOL

incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 44–70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v.,

once; for detailed information please see the article), conc.: tr* **, country: Canada⁶³, *cumulative value, **collected and measured up to 36 h after DON-administration incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 48-70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc.: tr* **, country: Canada⁶³, *cumulative value, **collected and measured up to 36 h after DON-administration incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 44-70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v., once; for detailed information please see the article), conc. range: 0.8-1.2 mg* ** ***, Ø conc.: 1 mg* ** ***, country: Canada⁶³, *DOM-1-Gluc, **cumulative value, ***collected and measured up to 36 h after DONadministration incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 48-70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc. range: 0.2-0.5 mg* ** ***, Ø conc.: 0.35 mg* ** ***, country: Canada⁶³, *DOM-1-Gluc, **cumulative value, ***collected and measured up to 36 h after DON-administration

Sheep feces may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 44–70 kg, contamination: artificial (dose: **0.5 mg DON**/kg b. wt., **i.v.**, once; for detailed information please see the article), conc.: na, country: Canada⁶³ incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 48–70 kg, contamination: artificial (dose: **5.0 mg DON**/kg b. wt., **o.**, once; for detailed information please see the article), conc.

range: 110-120 mg*, Ø conc.: 115 mg*, country: Canada⁶³, *cumulative value(s) of the first 24 h collection after DON-administration

DEEPOXYDEOXYNIVALENOL

incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 44-70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v., once; for detailed information please see the article), conc.: na, country: Canada⁶³ incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 48-70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc. range: 70 mg* **, Ø conc.: 70 mg* **, country: Canada⁶³, *cumulative value of the first 24 h collection after DON-administration

FUMONISIN B, incidence: ?/6, sa. const.: sheeps, contamination: artificial (dose: 50 µg

FB₁/g, o., once; for detailed information please see the article), conc.: 6 µg/g (mean value), country: USA²⁷⁶

HYDROLIZED FUMONISIN B, incidence: ?/6, sa. const.: sheeps, contamination: artificial (dose: 50 µg FB₁/g, o., once; for detailed information please see the article), conc.: 10 µg/g (mean value), country: USA276

OCHRATOXIN A

incidence: 4/4*, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada²⁸³, *control incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 2 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please see the article), conc.: 23.0 ng/kg* ** (mean value), country: Germany/ Canada²⁸³, *in dry matter, **collected over a period of 7 days in the 3rd week

incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 5 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please see the article), conc.: 32.0 ng/kg* ** (mean value), country: Germany/ Canada²⁸³, *in dry matter, **collected over a period of 7 days in the 3rd week

incidence: 3/3*, sa. const.: castrated male

sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada482, *control incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 9.5 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 30.8 ng/g* ** (mean value), country: Germany/Canada482, *in dry matter, **collected over 7 days (day 15 until day 21 after the 1st OTA-administration, lowest conc.: 0 at day 1) incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 19.0 µg OTA/kg b. wt./ day, o., for 29 days; for detailed information please see the article), conc.: 57.2 ng/g* ** (mean value), country: Germany/Canada482, *in dry matter, **collected over 7 days (day 15 until day 21 after the 1st OTA-administration, lowest conc.: 0 at day 1) incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 28.5 µg OTA/kg b. wt./ day, o., for 29 days; for detailed information please see the article), conc.: 123.1 ng/g* ** (mean value), country: Germany/Canada482, *in dry matter, **collected over 7 days (day 15 until day 21 after the 1st OTA-administration, lowest conc.: 0 at day 1)

Ochratoxin α

incidence: 4/4*, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada²⁸³, *control incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 2 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please see the article), conc.: 251.5 ng/kg* ** (mean value), country: Germany/ Canada²⁸³, *in dry matter, **collected over a period of 7 days in the 3rd week incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 5 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please see the article), conc .: 796.2 ng/kg* ** (mean value), country: Germany/ Canada²⁸³, *in dry matter, **collected over a period of 7 days in the 3rd week

sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada⁴⁸², *control incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 9.5 μg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 212.4 ng/g dry matter* (mean value), country: Germany/ Canada⁴⁸², *collected over 7 days (day 15 until day 21 after the 1st OTA-administration)

incidence: 3/3*, sa. const.: castrated male

incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 19.0 μg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 396.0 ng/g dry matter* (mean value), country: Germany/ Canada⁴⁸², *collected over 7 days (day 15

until day 21 after the 1st OTA-administration)

incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 28.5 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 809.9 ng/g dry matter* (mean value), country: Germany/Canada⁴⁸², *collected over 7 days (day 15 until day 21 after the 1st OTA-administration)

Sheep milk, raw may contain the following mycotoxins and/or their metabolites:

Aflatoxin $\mathbf{M}_{_{1}}$

incidence: 6/6*, sa. const.: milk from ewes, contamination: no AFB₁; for detailed information please see the article), conc.: <50 ng/l, country: Italy⁵²⁰, *control incidence: 24/24, sa. const.: milk from ewes, contamination: artificial (dose: **feed with increasing amounts of AFB**₁; for detailed information please see the article), conc. range: 121–1,246 ng/l, Ø conc.: 547.8 ng/l, country: Italy⁵²⁰

DEOXYNIVALENOL

incidence: 2/2*, sa. const.: lactating ewes, age: 1 year, wt.: 70-80 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada²⁸⁴, *control incidence: 2/2, sa. const.: lactating ewes, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 4.0 mg DON (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc. range: ≤61 ng/ml* (in total: 7.8–33.0 μ g), country: Canada²⁸⁴, *0-4 h sa. collection (collection period over 48 h, lowest conc.: 0 from 16-20, 20-24 and 44-48 h) incidence: 1/1, sa. const.: lactating ewes, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 1.5 g DON, o., during 72 h dosing period; for detailed information please see the article), conc. range:

≤10 ng/ml* **, country: Canada²⁸⁴, *conjugated and unconjugated DON, **after 4-8 h post-DON period (measured over 72 h (DON feeding period) and afterwards over 48 h (post-DON period, lowest conc.: nd at 44-48 h) incidence: 1/1, sa. const.: lactating ewes, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 4.0 g DON, o., during 72 h dosing period; for detailed information please see the article), conc. range: ≤17 ng/ml* **, country: Canada²⁸⁴, *conjugated and unconjugated DON, **after 4-8 h post-DON period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON period, lowest conc.: nd at 44-48 h)

Deepoxydeoxynivalenol

incidence: 2/2*, sa. const.: lactating ewes, age: 1 year, wt.: 70-80 kg, contamination: no DON (for detailed information please see the article), conc.: nd, country: Canada²⁸⁴, *control incidence: 2/2, sa. const.: lactating ewes, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 4.0 mg DON (labeled)/kg b. wt., i.v., once; for detailed information please see the article), conc. range: \leq 1,220 ng/ml* (in total: 310.1–610.4 µg), country: Canada²⁸⁴, *4-8 h sa. collection (collection period over 48 h, lowest conc.: 0 at 44-48 h for 1 sheep) incidence: 1/1, sa. const.: lactating ewe, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 1.5 g DON, o., during 72 h dosing period; for detailed information please see the article), conc. range: ≤125 ng/ml* **, country: Canada²⁸⁴, *conjugated and unconjugated DOM-1, **after 4-8 h post-DON period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON period, lowest conc.: 15 ng/ml at 44-48 h) incidence: 1/1, sa. const.: lactating ewe, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 4.0 g DON, o., during 72 h

dosing period; for detailed information

please see the article), conc. range: ≤205 ng/ml* **, country: Canada²⁸⁴, *conjugated and unconjugated DOM-1, **after 4–8 h post-DON period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON period, lowest conc.: tr at 44–48 h)

ZEARALENONE

incidence: 3/6, sa. const.: sheeps, contamination: artificial (dose: 1.8 g crystalline ZEA, into the esophagus, once), conc. range: 0.001–0.002 ppm*, country: Hungary/USA¹²³, *after 24, 48 and 72 h (up to 120 h measured, lowest value conc.: nd 0, 96 and 120 h)

β-ZEARALENOL

incidence: 3/6, sa. const.: sheeps, contamination: artificial (dose: 1.8 g crystalline ZEA, into the esophagus, once), conc. range: 0.001–0.002 ppm*, country: Hungary/USA¹²³, *after 24, 48 and 72 h (up to 120 h measured, lowest value conc.: nd 0, 96 and 120 h)

Sheep plasma may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 1/1, sa. const.: lactating ewe, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 1.5 g DON, o., during 72 h dosing period; for detailed information please see the article), conc. range: tr*, country: Canada²⁸⁴, *after 53 h DONfeeding period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON-period, lowest conc.: nd at 24 and 48 h) incidence: 1/1, sa. const.: lactating ewe, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 1.5 g DON, o., during 72 h dosing period; for detailed information please see the article), conc. range: ≤19 ng/ml* **, country: Canada²⁸⁴, *conjugated DON, **after 53 h

DON-feeding period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON-period, lowest conc.: nd at 24 and 48 h)

incidence: 1/1, sa. const.: lactating ewe, age: 1 year, wt.: 70–80 kg, contamination: artificial (dose: **4.0 g DON**, o., during 72 h dosing period; for detailed information please see the article), conc. range: ≤30 ng/ml*, country: Canada²⁸⁴, *after 43 h DON-feeding period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON-period, lowest conc.: nd at 12, 24 and 48 h)

incidence: 1/1, sa. const.: lactating ewe, age: 1 year, wt.: 70–80 kg, contamination: artificial (dose: **4.0 g DON**, o., during 72 h dosing period; for detailed information please see the article), conc. range: ≤110 ng/ml* **, country: Canada²⁸⁴, *conjugated DON, **after 53 h DON-feeding period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON-period, lowest conc.: nd at 48 h)

incidence: 1/1, sa. const.: male sheep, age: 1 year, wt.: 60-70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v., once; for detailed information please see the article), conc. range: ≈≤5,000 ng/ml*, country: Canada⁶²⁰, *after 10 min (also at other min intervals up to 210 min measured, lowest conc.: ≈130 ng/ml after 210 min) incidence: 3/3, sa. const.: male sheep, age: 1 year, wt.: 60-70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v., once; for detailed information please see the article), conc. range: 240-520 ng/ml* **, Ø conc.: 386.6 ng/ml* **, country: Canada⁶²⁰, *after 60 min (also at other min intervals up to 300 min measured, lowest conc.: ≈110 ng/ml after 210 min), **conjugated DON

incidence: 4/4, sa. const.: male sheep, age: 1 year, wt.: 60–70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc. range: 470–760 ng/ml* **,

Ø conc.: 582.5 ng/ml* **, country: Canada⁶²⁰, *after 5–7 h (also at other hour intervals up to 21 h measured, lowest conc.: ≈nd after 21 h for 1 sheep), **total DON

DEEPOXYDEOXYNIVALENOL

incidence: 1/1, sa. const.: lactating ewe, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 1.5 g DON, o., during 72 h dosing period; for detailed information please see the article), conc. range: ≤69 ng/ml*, country: Canada²⁸⁴, *after 53 h DON-feeding period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON-period, lowest conc.: tr at 48 h) incidence: 1/1, sa. const.: lactating ewe, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 1.5 g DON, o., during 72 h dosing period; for detailed information please see the article), conc. range: ≤336 ng/ml* **, country: Canada²⁸⁴, *conjugated DOM-1, **after 53 h DON-feeding period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON-period, lowest conc.: 15 ng/ml at 48 h) incidence: 1/1, sa. const.: lactating ewe, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 4.0 g DON, o., during 72 h dosing period; for detailed information please see the article), conc. range: ≤330 ng/ml*, country: Canada²⁸⁴, *after 53 h DON-feeding period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON-period, lowest conc.: tr at 48 h) incidence: 1/1, sa. const.: lactating ewe, age: 1 year, wt.: 70-80 kg, contamination: artificial (dose: 4.0 g DON, o., during 72 h dosing period; for detailed information please see the article), conc. range: ≤1,330 ng/ml* **, country: Canada²⁸⁴, *conjugated DOM-1, **after 53 h DON-feeding period (measured over 72 h (DON-feeding period) and afterwards over 48 h (post-DON-period, lowest conc.: 98 ng/ml at 48 h)

Sheep rumen may contain the following mycotoxins and/or their metabolites:

DEOXYNIVALENOL

incidence: 1/1, sa. const.: male sheep, age: 1 year, wt.: 60–70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc. range: \approx 53 µg/ml*, country: Canada⁶²⁰, *after 1 h (also at other hour intervals up to 20 h measured, lowest conc.: \approx 2.4 µg/ml after 20 h)

OCHRATOXIN A

incidence: 1/1, sa. const.: sheep, contamination: artificial (dose: 2 ppm OTA for 4 days followed by 5 ppm OTA in the diet for 2 days; for detailed information please see the article), conc. range: ≤29 ppb* **, country: Sweden¹⁹⁹, *0.5 h after final OTA-administration, **in ruminal fluid incidence: 1/1, sa. const.: sheep, contamination: artificial (dose: 2 ppm OTA for 4 days followed by 5 ppm OTA in the diet for 2 days; for detailed information please see the article), conc. range: ≤14 ppb* **, country: Sweden¹⁹⁹, *1 h after final OTA-administration, **in ruminal fluid

incidence: 1?/1?, sa. const.: female sheep (Suffolk), wt.: 45–65 kg, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤0.58 µg/ml* ** ***, country: Canada²⁰⁰, *fed hay (for overall information please see the article), **after 2 h (also measured after 4, 6 and 10 h, lowest conc.: nd after 10 h), ***in ruminal contents incidence: 1?/1?, sa. const.: female sheep (Suffolk), wt.: 45–65 kg, contamination: artificial (dose: 0.5 mg OTA/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 1.19 \,\mu\text{g}/$ ml* ** ***, country: Canada200, *fed grain-30% = low feed intake (for overall information please see the article), **after 2 h (also measured after 4, 6 and 10 h, lowest conc.: 0.18 μg/ml after 10 h),
***in ruminal contents
incidence: 2?/2, sa. const.: female sheeps
(Suffolk), wt.: 45–65 kg, contamination:
artificial (dose: 0.5 mg OTA/kg b. wt., o.,
once; for detailed information please
see the article), conc. range: ≈≤1.33 μg/
ml* ** ***, country: Canada²00,
*fed grain-100% = normal feed intake
(for overall information please see the
article), **after 2 h (also measured after 4,
6 and 10 h, lowest conc.: 0.44 μg/ml after
10 h), ***in ruminal contents

incidence: 3/3*, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Canada482, *control incidence: 2?/2, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 9.5 µg OTA/kg b. wt./day, o., for 24/25 days; for detailed information please see the article), conc. range: ≈≤14 ng/ml* ** (mean value), country: Canada482, *1 h after final OTA-administration (also measured after 4, 7, 10 and 13 h, lowest conc.: nd after 13 h), **in ruminal fluid incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 19.0 ug OTA/kg b. wt./day, o., for 24/25 days; for detailed information please see the article), conc. range: ≈≤36.5 ng/ml* ** (mean value), country: Canada482, *1 h after final OTA-administration (also measured after 4, 7, 10 and 13 h, lowest conc.: nd after 13 h), **in ruminal fluid incidence: 2?/2, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 28.5 µg OTA/kg b. wt./day, o., for 24/25 days; for detailed information please see the article), conc. range:

≈≤53 ng/ml* ** (mean value), country: Canada⁴⁸², *1 h after final OTAadministration (also measured after 4, 7, 10 and 13 h, lowest conc.: nd after 13 h), **in ruminal fluid

Ochratoxin α incidence: 1/1, sa. const.: sheep, contamination: artificial (dose: 2 ppm OTA for 4 days followed by 5 ppm OTA in the diet for 2 days; for detailed information please see the article), conc.: pr* **, country: Sweden199, *0.5 h after final OTA-administration, **in ruminal fluid incidence: 1/1, sa. const.: sheep, contamination: artificial (dose: 2 ppm OTA for 4 days followed by 5 ppm OTA in the diet for 2 days; for detailed information please see the article), conc.: pr* **, country: Sweden¹⁹⁹, *1 h after final OTA-administration, **in ruminal fluid incidence: 3/3*, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Canada482, incidence: 2?/2, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 9.5 µg OTA/kg b. wt./day, o., for 24/25 days; for detailed information please see the article), conc. range: ≈≤13 ng/ml* (mean value), country: Canada482, *10 h after final OTA-administration (also measured after 1, 4, 7 and 13 h, lowest

conc.: ≈10 ng/ml after 1 h), **in ruminal fluid incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 19.0 µg OTA/kg b. wt./day, o., for 24/25 days; for detailed information please see the article), conc. range: ≈≤29 ng/ml* (mean value), country: Canada⁴8², *after 13 h after final OTA-administration (also measured

after 1, 4, 7 and 10 h, lowest conc.: ≈18 ng/ml after 1 h), **in ruminal fluid incidence: 2?/2, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 28.5 µg OTA/kg b. wt./day, o., for 24/25 days; for detailed information please see the article), conc. range: ≈≤48 ng/ml* (mean value), country: Canada⁴⁸², *after 10 h after final OTA-administration (also measured after 1, 4, 7 and 13 h, lowest conc.: ≈32 ng/ml after 1 h), **in ruminal fluid

Sheep ruminal fluid see Sheep rumen

Sheep serum may contain the following mycotoxins and/or their metabolites:

incidence: 4/4*, sa. const.: crossbred

OCHRATOXIN A

wethers, wt.: ≈66 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada²8³, *control incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 2 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please see the article), conc. range: ≤10.8 ng/ml* (mean value), country: Germany/ Canada²8³, *day 27 of trial (also measured at 6, 13 and 20 days, lowest conc.: 8.2 ng/ml at day 6)

incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 5 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please see the article), conc. range: ≤111.7 ng/ml* (mean value), country: Germany/ Canada²⁸³, *day 27 of trial (also measured at 6, 13 and 20 days, lowest conc.: 67.0 ng/ml at day 20)

incidence: 3/3*, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year,

wt.: ≈39.3 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada⁴⁸², *control

incidence: 2?/2, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 9.5 μg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 6.0 ng/ml* (mean value), country: Germany/Canada⁴⁸², *at day 23 of trial (also measured at day 1, 5, 9, 13 and 29 days after the 1st OTA-administration, lowest conc.: 0 at day 1)

incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 19.0 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 12.4 ng/ml* (mean value), country: Germany/ Canada⁴8², *at day 29 of trial (also measured at day 1, 5, 9, 13 and 23 days after the 1st OTA-administration, lowest conc.: 0 at day 1)

incidence: 2?/2, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 28.5 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 18.2 ng/ml* (mean value), country: Germany/Canada⁴⁸², *at day 23 of trial (also measured at day 1, 5, 9, 13 and 29 days after the 1st OTA-administration, lowest conc.: 0 at day 1)

Ochratoxin α

incidence: 4/4*, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/Canada²⁸³, *control incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 2 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please

see the article), conc. range: ≤3.4 ng/ml* (mean value), country: Germany/
Canada²⁸³, *day 6 of trial (also measured at 13, 20 and 27 days, lowest conc.: 2.0 ng/ml at day 27) incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 5 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please see the article), conc. range: ≤18.5 ng/ml* (mean value), country: Germany/ Canada²⁸³, *day 27 of trial (also measured at 6, 13 and 20 days, lowest conc.: 12.0 ng/ml at day 13)

incidence: 3/3*, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada482, *control incidence: 2?/2, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 9.5 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 0.8 ng/ml* (mean value), country: Germany/Canada482, *at day 9 of trial (also measured at day 1, 5, 13, 23 and 29 days after the 1st OTA-administration, lowest conc.: 0 at day 1) incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 19.0 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 2.3 ng/ml* (mean value), country: Germany/ Canada⁴⁸², *at day 29 of trial (also measured at day 1, 5, 9, 13 and 23 days after the 1st OTA-administration, lowest conc.: 0 at day 1) incidence: 2?/2, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 28.5 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 1.6 ng/ml* (mean value),

country: Germany/Canada⁴⁸², *at day 9 of trial (also measured at day 1, 5, 13, 23 and 29 days after the 1st OTA-administration, lowest conc.: 0 at day 1)

Sheep urine may contain the following mycotoxins and/or their metabolites:

AFLATOXIN M,

incidence: 2/2, sa. const.: adult sheeps, total wt.: 67 kg, contamination: artificial (dose: 1 mg AFs (AFB $_1$ 73% + AFB $_2$ 24% + AFG $_1$ 2% + AFG $_2$ 1%)/kg, i.p., once), conc. range: \approx 0.525 mg in total, country: South Africa¹³¹

AFLATOXIN M,

incidence: 2/2, sa. const.: adult sheeps, total wt.: 67 kg, contamination: artificial (dose: 1 mg AFs (AFB₁ 73% + AFB₂ 24% + AFG₁ 2% + AFG₂ 1%)/kg, i.p., once), conc. range: ≈ 0.175 mg in total, country: South Africa¹³¹

DEOXYNIVALENOL

incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 44-70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v., once; for detailed information please see the article), conc. range: 5.2-8.6 mg* **, Ø conc.: 6.9 mg* **, country: Canada⁶³, *cumulative value(s), **collected and measured up to 36 h after DON-administration incidence: 2/2, sa. const.: shorn wethers, age: 1 year, weight: 48-70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc. range: 4.3-8.2 mg* **, Ø conc.: 6.3 mg* **, country: Canada⁶³, *cumulative value(s), **collected and measured up to 36 h after DON-administration incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 44-70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v., once; for detailed information please see the article), conc. range: 4.4-7.9 mg* ** ***, Ø conc.: 6.2 mg* ** ***, country:

Canada⁶³, *DON-Gluc, **cumulative value(s), ***collected and measured up to 36 h after DON-administration incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 48–70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc. range: 8.1–13.5 mg* ** ****, Ø conc.: 10.8 mg* ** ****, country: Canada⁶³, *DON-Gluc, **cumulative value(s), *** collected and measured up to 36 h after DON-administration

DEEPOXYDEOXYNIVALENOL

incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 44-70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v., once; for detailed information please see the article), conc. range: 0.10-0.18 mg* **, Ø conc.: 0.14 mg* **, country: Canada63, *cumulative value(s), **collected and measured up to 36 h after DON-administration incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 48-70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc. range: 0.16 mg* **, Ø conc.: 0.16 mg* **, country: Canada63, *cumulative value(s), **collected and measured up to 36 h after DON-administration incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 44-70 kg, contamination: artificial (dose: 0.5 mg DON/kg b. wt., i.v., once; for detailed information please see the article), conc. range: 3.8-6.1 mg* ** ***, Ø conc.: 5 mg* ** ***, country: Canada63, *DOM-1-Gluc, **cumulative value(s), ***collected and measured up to 36 h after DON-administration incidence: 2/2, sa. const.: shorn wethers, age: 1 year, wt.: 48-70 kg, contamination: artificial (dose: 5.0 mg DON/kg b. wt., o., once; for detailed information please see the article), conc. range: 2.9-3.8 mg* ** ***, Ø conc.: 3.4 mg* ** ***, country: Canada63,

*DOM-1-Gluc, **cumulative value(s),
***collected and measured up to
36 h after DON-administration

Fumonisin B_1 incidence: ?/6, sa. const.: sheeps, contamination: artificial (dose: 50 μ g FB₁/g, o., once; for detailed information please see the article), conc. range: 0.1–3.8 μ g/g (mean values), country: USA²⁷⁶

OCHRATOXIN A

incidence: 4/4*, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada²⁸³, *control incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 2 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please see the article), conc.: 3.9 ng/kg* (mean value), country: Germany/ Canada²⁸³, *collected over a period of 7 days in the 3rd week incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 5 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please see the article), conc.: 14.6 ng/kg* (mean value), country: Germany/ Canada²⁸³, *collected over a period of 7 days in the 3rd week

incidence: 3/3*, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada⁴⁸², *control incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 9.5 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 28.4 ng/ml*

(mean value), country: Germany/ Canada482, *collected over 7 days (day 15 until day 21 after the 1st OTA-administration, lowest conc.: 0 at day 1) incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 19.0 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 48.4 ng/ml* (mean value), country: Germany/ Canada482, *collected over 7 days (day 15 until day 21 after the 1st OTA-administration, lowest conc.: 0 at day 1) incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 28.5 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 113.0 ng/ml* (mean value), country: Germany/ Canada⁴⁸², *collected over 7 days (day 15 until day 21 after the 1st OTA-administration, lowest conc.: 0 at day 1)

Ochratoxin α

incidence: 4/4*, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada²⁸³, *control incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 2 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please see the article), conc.: 68.6 ng/kg* (mean value), country: Germany/ Canada²⁸³, *collected over a period of 7 days in the 3rd week incidence: 4?/4, sa. const.: crossbred wethers, wt.: ≈66 kg, contamination: artificial (dose: 5 mg OTA/kg feed (70% concentrates, 30% hay), o., for 4 weeks; for detailed information please

see the article), conc.: 347.8 ng/kg* (mean value), country: Germany/ Canada²⁸³, *collected over a period of 7 days in the 3rd week

incidence: 3/3*, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: no OTA (for detailed information please see the article), conc.: nd, country: Germany/ Canada482, *control incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 9.5 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 158.6 ng/ml* (mean value), country: Germany/Canada482, *collected over 7 days (day 15 until day 21 after the 1st OTA-administration, lowest conc.: 0 at day 1)

incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 19.0 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 283.4 ng/ml* (mean value), country: Germany/Canada⁴8², *collected over 7 days (day 15 until day 21 after the 1st OTA-administration, lowest conc.: 0 at day 1)

incidence: 3?/3, sa. const.: castrated male sheeps (Coburger Fuchsschaf), age: 1 year, wt.: ≈39.3 kg, contamination: artificial (dose: 28.5 µg OTA/kg b. wt./day, o., for 29 days; for detailed information please see the article), conc.: 227.3 ng/ml* (mean value), country: Germany/ Canada⁴⁸², *collected over 7 days (day 15 until day 21 after the 1st OTA-administration, lowest conc.: 0 at day 1)

ZEARALENONE

incidence: 3/4, sa. const.: sheeps, contamination: artificial (dose: 1.8 g crystalline ZEA, into the esophagus, once), conc. range: 0.020–0.050 ppm*, country: Hungary/USA¹²³, *after 24, 48 and 72 h (also at 0 h measured but conc.: nd)

β-ZEARALENOL

incidence: 3/4, sa. const.: sheeps, contamination: artificial (dose: 1.8 g crystalline ZEA, into the esophagus, once), conc. range: 0.020–0.050 ppm*, country: Hungary/USA¹²³, *after 24, 48 and 72 h (also at 0 h measured but conc.: nd)

Sow milk see Pig, sow milk

Steer

Steer Natural Contamination see also Cattle

Steer kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁

incidence: 2/2, sa. const.: kidneys from steers of the USA, contamination: natural, conc. range: 0.09 ng/g, country: USA³⁹⁹

AFLATOXIN M,

incidence: 2/2, sa. const.: kidneys from steers of the USA, contamination: natural, conc. range: 4.8 ng/g, country: USA³⁹⁹

Steer Artificial Contamination

Steer bile may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁴⁶, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 0.23 ng/ml* (mean value), country: USA¹⁴⁶, *after 17.5 weeks of AF-administration

incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA¹⁴⁶, *after 17.5 weeks (thereof 15 weeks with AF-administration)

AFLATOXIN M, incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 3.46 ng/ml* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

Steer blood may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: **0.2 mg AFs**/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 2.0$ ng/ml *, country: USA⁷², *after ≈ 25 h during administration (also after other hour intervals up to ≈ 72 h measured, lowest conc.: nd after ≈ 72 h)

incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.4 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤0.5 ng/ml *, country: USA72, *after ≈25 h during administration (also after other hour intervals up to ≈103 h measured, lowest conc.: ≈nd after ≈103 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤4.8 ng/ml *, country: USA72, *after ≈48 h during administration (also after other hour intervals up to ≈142 h measured, lowest conc.: ≈nd after ≈145 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.8 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤21.1 ng/ml *, country: USA⁷², *after ≈54 h during administration (also after other hour intervals up to ≈129 h measured, lowest conc.: nd after ≈129 h)

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc. range: ≤0.14 ng/ml* (mean value), country: USA146, *after 13 weeks of AF-administration (also after other week intervals up to 15 weeks measured, week 16, 17 and 17.5 na) incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free

diet; for detailed information please see the article), conc.: tr, country: USA¹⁴⁶, *after 7 weeks of AF-administration (also after other week intervals up to 15 weeks measured, week 16, 17 and 17.5 na)

AFLATOXIN M, incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.2 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤0.6 ng/ml *, country: USA⁷², *after ≈8 h during administration (also after other hour intervals up to ≈72 h measured, lowest conc.: ≈nd after ≈72 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.4 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤2.1 ng/ml *, country: USA⁷², *after ≈2 h during administration (also after other hour intervals up to ≈104 h measured, lowest conc.: ≈nd after ≈104 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤1.7 ng/ml *, country: USA72, *after ≈3 h during administration (also after other hour intervals up to ≈144 h measured, lowest conc.: ≈nd after ≈144 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.8 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤4.6 ng/ml *, country: USA72, *after ≈60 h during administration (also after other hour intervals up to ≈144 h measured, lowest conc.: nd after ≈144 h)

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁴⁶, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc. range: ≤0.38 ng/ml* (mean value), country: USA146, *after 15 weeks of AF-administration (also after other week intervals up to 15 weeks measured, week 16, 17 and 17.5 na) incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc. range: ≤0.38 ng/ml* (mean value), country: USA146, *after 15 weeks of AF-administration (also after other week intervals up to 15 weeks measured, week 16, 17 and 17.5 na)

Steer feces may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.2 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤30 ng/g*, country: USA⁷², *after ≈32 h during administration (also after other hour intervals up to ≈97 h measured, lowest conc.: nd after 96 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.4 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤130 ng/g*, country: USA⁷², *after ≈33 h during administration (also after other hour intervals up to ≈152 h measured, lowest conc.: ≈nd after 120 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 230 \text{ ng/g}^*$, country: USA⁷², *after ≈52 h during

administration (also after other hour intervals up to \approx 170 h measured, lowest conc.: \approx nd after 170 h) incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: **0.8 mg AFs**/kg b. wt., o., once; for detailed information please see the article), conc. range: \approx 51,740 ng/g*, country: USA⁷², *after \approx 22 h during administration (also after other hour intervals up to \approx 142 h measured, lowest conc.: \approx nd after 142 h)

Holstein-Friesian steers, wt.: ≈183 kg,

incidence: 5/5*, sa. const.:

contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 6.42 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

AFLATOXIN M_1 incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: **0.2 mg AFs**/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 180$ ng/g *, country: USA⁷², *after ≈ 33 h during administration (also after other hour intervals up to ≈ 98 h measured, lowest conc.: nd after 96 h) incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial

(dose: 0.4 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤1,430 ng/g *, country: USA72, *after ≈30 h during administration (also after other hour intervals up to ≈170 h measured, lowest conc.: nd after ≈152 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤440 ng/g *, country: USA⁷², *after ≈30 h during administration (also after other hour intervals up to ≈170 h measured, lowest conc.: ≈20 ng/g after ≈170 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.8 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤1,280 ng/g *, country: USA⁷², *after ≈25 h during administration (also after other hour up

to ≈170 h measured, lowest conc.:

nd after ≈170 h)

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 42.13 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

Steer heart may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 0.004 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration) incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB, eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 9.2 ng/g*, country: USA¹⁵¹, *on 6th day

AFLATOXIN B

6th day

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB, eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 0.9 ng/g*, country: USA151, *on 6th day

Aflatoxin G_1 incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB, eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 1.0 ng/g*, country: USA151, *on

AFLATOXIN G, incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB, eq/kg b. wt./day, o., for

5 consecutive days; for detailed information please see the article), conc.: 0.04 ng/g*, country: USA151, *on 6th day

AFLATOXIN M, incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 0.14 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB, eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 4.9 ng/g*, country: USA151, *on 6th day

Steer kidney may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.2 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: nd*, country: USA72, *sa. collected on day 7

incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.4 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: nd*, country: USA72, *sa. collected on day 7 incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: 0.06 ng/g*, country: USA72, *sa. collected on day 7 incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.8 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: 0.047 ng/g*, country: USA72, *sa. collected on day 7

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB, containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 0.09 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 29.3 ng/g*, country: USA¹⁵¹, *on 6th day

AFLATOXIN B₂ incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 4.4 ng/g*, country: USA¹⁵¹, *on 6th day

AFLATOXIN G₁ incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article),

conc.: 6.3 ng/g*, country: USA¹⁵¹, *on

6th day

AFLATOXIN G₂ incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 0.4 ng/g*, country: USA¹⁵¹, *on 6th day

AFLATOXIN M, incidence: 1/1, sa. const.: steers, wt.: 155-357 kg, contamination: artificial (dose: 0.2 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: 0.029 ng/g*, country: USA72, *sa. collected on day 7 incidence: 1/1, sa. const.: steers, wt.: 155-357 kg, contamination: artificial (dose: 0.4 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: 0.035 ng/g*, country: USA72, *sa. collected on day 7 incidence: 1/1, sa. const.: steers, wt.: 155-357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: 0.26 ng/g*, country: USA72, *sa. collected on day 7 incidence: 1/1, sa. const.: steers, wt.: 155-357 kg, contamination: artificial (dose: 0.8 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: 0.14 ng/g*, country: USA⁷², *sa. collected on day 7

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 4.82 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 105.5 ng/g*, country: USA¹⁵¹, *on 6th day

Steer liver may contain the following mycotoxins and/or their metabolites:

wt.: 258-270 kg, contamination: no AFB

incidence: 3/3*, sa. const.: steers,

AFLATOXIN B,

(for detailed information please see the article), conc.: nd, country: USA⁷¹, *control incidence: 1/3, sa. const.: steers, wt.: 258–270 kg, contamination: artificial (dose: **60 ppb AFB**₁ in the feed for 155 days; for detailed information please see the article), conc.: 0.29 ppb* in wet tissue, country: USA⁷¹, *sa. collected on day 64 (also measured at 106, 151 and 163 days but conc.: nd)

incidence: 1/3, sa. const.: steers, wt.: 258-270 kg, contamination: artificial (dose: 300 ppb AFB, in the feed for 155 days; for detailed information please see the article), conc.: 0.64 ppb* in wet tissue, country: USA71, *sa. collected on day 106 (also measured at 64, 151 and 163 days but lower conc. recorded) incidence: 1/3, sa. const.: steers, wt.: 258-270 kg, contamination: artificial (dose: 600 ppb AFB, in the feed for 155 days; for detailed information please see the article), conc.: 1.14 ppb* in wet tissue, country: USA71, *sa. collected on day 64 (also measured at 106, 151 and 163 days but lower conc. recorded)

incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.2 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: nd*, country: USA72, *sa. collected on day 7 incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.4 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: nd*, country: USA⁷², *sa. collected on day 7 incidence: 1/1, sa. const.: steers, wt.: 155-357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: 0.089 ng/g*, country: USA72, *sa. collected on day 7 incidence: 1/1, sa. const.: steers, wt.: 155-357 kg, contamination: artificial (dose: 0.8 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc.: 0.025 ng/g*, country: USA72, *sa. collected on day 7

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁴⁶, *control

incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 0.37 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet: for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc. range: ≤28.8 ng/g* **, country: USA¹⁵¹, *different portions of the liver evaluated, **on 6th day

AFLATOXIN B₂

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc. range: ≤4.6 ng/g* **, country: USA¹⁵¹, *different portions of the liver evaluated, **on 6th day

AFLATOXIN G,

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc. range: \leq 3.4 ng/g* **, country: USA¹⁵¹, *different portions of the liver evaluated, **on 6th day

AFLATOXIN G₂ incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial

(dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc. range: ≤0.3 ng/g* **, country: USA¹⁵¹, *different portions of the liver evaluated, **on 6th day

AFLATOXIN M,

incidence: 3/3*, sa. const.: steers, wt.: 258–270 kg, contamination: no AFB₁ (for detailed information please see the article), conc.: nd, country: USA⁷¹, *control

incidence: 2/3, sa. const.: steers, wt.: 258–270 kg, contamination: artificial (dose: 60 ppb AFB₁ in the feed for 155 days; for detailed information please see the article), conc. range: 0.30–0.62 ppb* in wet tissue, country: USA⁷¹, *sa. collected on day 106 (also measured at 64, 151 and 163 days but conc.: nd)

incidence: 3/3, sa. const.: steers, wt.: 258–270 kg, contamination: artificial (dose: 300 ppb, AFB₁ in the feed for 155 days; for detailed information please see the article), conc. range: ≤1.58 ppb* in wet tissue, country: USA⁷¹, *sa. collected on day 106 (also measured at 64, 151 and 163 days but lower conc. recorded)

incidence: 3/3, sa. const.: steers, wt.: 258–270 kg, contamination: artificial (dose: **600 ppb AFB**₁ in the feed for 155 days; for detailed information please see the article), conc. range: ≤2.76 ppb* in wet tissue, country: USA⁷¹, *sa. collected on day 106 (also measured at 64, 151 and 163 days but lower conc. recorded)

incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: **0.2 mg AFs**/kg b. wt., o., once; for detailed information please see the article), conc.: nd*, country: USA⁷², *sa. collected on day 7

incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: **0.4 mg AFs**/kg b. wt., o., once; for detailed information please see the article),

conc.: nd*, country: USA⁷², *sa. collected on day 7

incidence: 1/1, sa. const.: steers, wt.: 155–357 kg, contamination: artificial (dose: **0.6 mg AFs**/kg b. wt., o., once; for detailed information please see the article), conc.: 0.061 ng/g*, country: USA⁷², *sa. collected on day 7

incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: **0.8 mg AFs**/kg b. wt., o., once; for detailed information please see the article), conc.: nd*, country: USA⁷², *sa. collected on day 7

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB, containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 1.07 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA¹⁴⁶, *after 17.5 weeks (thereof 15 weeks with AF-administration)

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc. range: ≤19.7 ng/g* **, country: USA¹⁵¹, *different portions of the liver evaluated, **on 6th day

Steer lung may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 0.014 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB, -containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

AFLATOXIN M, incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 0.29 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

Steer muscle may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: $5/5^*$, sa. const.: Holstein-Friesian steers, wt.: ≈ 183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁴⁶, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈ 183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 0.002 ng/g* ** (mean value), country: USA¹⁴⁶, *after 17.5 weeks of AF-administration, **in iliopsoas (skeletal

incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: \approx 183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd* **, country: USA¹⁴⁶, *after 17.5 weeks (thereof 15 weeks with AF-administration), **in *iliopsoas* (skeletal muscle)

muscle)

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: nd* ** (mean value), country: USA146, *after 17.5 weeks of AF-administration, **in semitendinous (skeletal muscle) incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose:

AFB₁ + AFB₂-containing corn (800 ng/g

total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd* **, country: USA¹⁴⁶, *after 17.5 weeks (thereof 15 weeks with AF-administration), **in *semitendinous* (skeletal muscle)

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 7.9 ng/g* **, country: USA¹⁵¹, *in round muscle, **on 6th day

AFLATOXIN B₂ incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed

5 consecutive days; for detailed information please see the article), conc.: 1.1 ng/g* **, country: USA¹⁵¹, *in round muscle, **on 6th day

AFLATOXIN G,

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 1.1 ng/g* **, country: USA¹⁵¹, *in round muscle, ** on 6th day

AFLATOXIN G₂

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 0.05 ng/g* **, country: USA¹⁵¹, *in round muscle, ** on 6th day

AFLATOXIN M₁ incidence: 5/5*, sa. const.:
Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁴⁶, *control incidence: 5?/5, sa. const.:
Holstein-Friesian steers, wt.: ≈183 kg,

total) for 17.5 weeks; for detailed information please see the article), conc.: 0.10 ng/g* ** (mean value), country: USA 146 , *after 17.5 weeks of AF-administration, **in *iliopsoas* (skeletal muscle) incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: \approx 183 kg, contamination: artificial (dose: AFB $_1$ + AFB $_2$ -containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.:

AFB, + AFB,-containing corn (800 ng/g

contamination: artificial (dose:

nd* **, country: USA¹⁴⁶, *after 17.5 weeks (thereof 15 weeks with AFs-administration), **in *iliopsoas* (skeletal muscle)

Holstein-Friesian steers, wt.: ≈183 kg,

incidence: 5/5*, sa. const.:

contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB, containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 0.11 ng/g* ** (mean value), country: USA146, *after 17.5 weeks of AF-administration, **in semitendinous (skeletal muscle) incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd* **, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration), **in semitendinous (skeletal muscle)

incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 2.7 ng/g* **, country: USA¹⁵¹, *in round muscle, **on 6th day

Steer pancreas may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: tr*, country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB, -containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

AFLATOXIN M, incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 0.15 ng/g* (mean value), country: USA146, *after 17.5 weeks of AF-administration incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd*, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration)

Steer rumen may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: 1/1, sa. const.: steers, wt.: 155–357 kg, contamination: artificial (dose: 0.2 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 1,520$ ng/g* ** dry weight, country: USA⁷², *after ≈ 8 h during administration (also after other hour intervals up to ≈ 96 h measured, lowest conc.: \approx nd after 80 h), **in rumen contents

incidence: 1/1, sa. const.: steers, wt.: 155-357 kg, contamination: artificial (dose: 0.4 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤1,600 ng/g* ** dry weight, country: USA72, *after ≈8 h during administration (also after other hour intervals up to 120 h measured, lowest conc.: nd after 120 h), **in rumen contents incidence: 1/1, sa. const.: steers, wt.: 155-357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤23,750 ng/g* ** dry weight, country: USA⁷², *after ≈1 h during administration (also after other hour intervals up to 170 h measured, lowest conc.: ≈40 ng/g after ≈120 h), **in rumen contents

incidence: 1/1, sa. const.: steers, wt.: 155–357 kg, contamination: artificial (dose: **0.8 mg AFs**/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 2,750$ ng/g* ** dry weight, country: USA⁷², *after ≈ 1 h during administration (also after other hour intervals up to 170 h measured, lowest conc.: nd after ≈ 145 h), **in rumen contents

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA¹⁴⁶, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 13.05 ng/g* ** (mean value), country: USA146, *after 17.5 weeks of AF-administration, **in rumen contents incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: 0.09 ng/g* **, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration), **in rumen contents

AFLATOXIN M,

incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: **0.2 mg AFs**/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 38$ ng/g* ** dry weight, country: USA⁷², *after ≈ 22 h during administration (also after other hour intervals up to ≈ 49 h measured, lowest conc.: ≈ 8 ng/g after ≈ 48 h), **in rumen contents

incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: **0.4 mg AFs/**kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 200$ ng/g* ** dry weight, country: USA⁷², *after ≈ 0 h during administration (also after other hour intervals up to ≈ 106 h measured, lowest conc.: \approx nd after ≈ 72 h), **in rumen contents

incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤530 ng/g* ** dry weight, country: USA⁷², *after ≈1 h during administration (also after other hour intervals up to 170 h measured, lowest conc.: ≈5 ng/g after ≈120 h), **in rumen contents incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial

(dose: **0.8** mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 253$ ng/g* ** dry weight, country: USA⁷², *after ≈ 8 h during administration (also after other hour intervals up to ≈ 170 h measured, lowest conc.: \approx nd after ≈ 170 h), **in rumen contents

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc.: 1.66 ng/g* ** (mean value), country: USA146, *after 17.5 weeks of AF-administration, **in rumen contents incidence: 5/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc.: nd* **, country: USA146, *after 17.5 weeks (thereof 15 weeks with AF-administration), **in rumen contents

Steer spleen may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B₁ incidence: 1/1, sa. const. Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 12.2 ng/g*, country: USA¹⁵¹, *on 6th day

AFLATOXIN B₂ incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o.,

for 5 consecutive days; for detailed information please see the article), conc.: 1.6 ng/g*, country: USA¹⁵¹, *on 6th day

AFLATOXIN G₁ incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 0.4 ng/g*, country: USA¹⁵¹, *on 6th day

AFLATOXIN M₁ incidence: 1/1, sa. const.: Holstein steer, wt.: 160 kg, contamination: artificial (dose: 52 mg AFB₁ eq/kg b. wt./day, o., for 5 consecutive days; for detailed information please see the article), conc.: 4.3 ng/g*, country: USA¹⁵¹, *on 6th day

Steer urine may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.2 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤275 ng/ml*, country: USA⁷², *after ≈2 h during administration (also after other hour intervals up to ≈96 h measured, lowest conc.: nd after ≈96 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.4 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤25 ng/ml*, country: USA⁷², *after ≈72 h during administration (also after other hour intervals up to ≈104 h measured, lowest conc.: nd after ≈104 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤115 ng/ml*, country: USA⁷², *after ≈48 h during

administration (also after other hour intervals up to 170 h measured, lowest conc.: nd after ≈120 h) incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: 0.8 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤565 ng/ml*, country: USA⁷², *after ≈74 h during administration (also after other hour intervals up to 170 h measured, lowest conc.: nd after ≈144 h)

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc. range: ≤1.54 ng/ml* (mean value), country: USA146, *after 5 weeks of AF-administration (also after other week intervals up to 17.5 weeks measured) incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB₁ + AFB₂-containing corn (800 ng/g total) for 15 weeks then 2.5 weeks AF-free diet; for detailed information please see the article), conc. range: ≤2.75 ng/ml* (mean value), country: USA146, *after 15 weeks (thereof 15 weeks with AF-administration) (also after other week intervals up to 17.5 weeks measured)

AFLATOXIN M_1 incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: **0.2 mg AFs**/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 1,550$ ng/ml*, country: USA⁷², *after ≈ 2 h during administration (also after other hour

intervals up to ≈128 h measured, lowest conc.: nd after 120 h) incidence: 1/1, sa. const.: steer, wt.: 155–357 kg, contamination: artificial (dose: 0.4 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤1,090 ng/ml*, country: USA⁷², *after ≈22 h during administration (also after other hour intervals up to ≈140 h measured, lowest conc.: nd after 140 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.6 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: ≈≤730 ng/ml*, country: USA⁷², *after ≈8 h during administration (also after other hour intervals up to 170 h measured, lowest conc.: nd after ≈144 h) incidence: 1/1, sa. const.: steer, wt.: 155-357 kg, contamination: artificial (dose: 0.8 mg AFs/kg b. wt., o., once; for detailed information please see the article), conc. range: $\approx \le 2,320 \text{ ng/ml}^*$, country: USA72, *after ≈22 h during administration (also after other hour intervals up to 170 h measured, lowest conc.: nd after ≈144 h)

incidence: 5/5*, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: no AFs (for detailed information please see the article), conc.: nd, country: USA146, *control incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 17.5 weeks; for detailed information please see the article), conc. range: ≤30.02 ng/ml* (mean value), country: USA146, *after 5 weeks of AF-administration (also after other week intervals up to 17.5 weeks measured) incidence: 5?/5, sa. const.: Holstein-Friesian steers, wt.: ≈183 kg, contamination: artificial (dose: AFB, + AFB,-containing corn (800 ng/g total) for 15 weeks then

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2.5 weeks AF-free diet; for detailed information please see the article), conc. range: ≤15.32 ng/ml* (mean value), country: USA¹⁴⁶, *after 12 weeks (15 weeks with AF-administration at all) (also after other week intervals up to 17.5 weeks measured)

Swine see Pig

Tree Shrew

Tree Shrew Artificial Contamination

Tree shrew liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/?*, sa. const.: male tree shrews, wt.: 100–160 g, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: USA¹⁴², *control

incidence: 4?/4, sa. const.: male tree shrews, wt.: 100-160 g, contamination: artificial (dose: $400 \mu g AFB_1$ (labeled)/ kg b. wt., by gavage, once; for detailed information please see the article), conc.: $0.37 pmol/mg DNA^* ** (mean value)$, country: USA^{142} , *after 24 h, **AFB₁-N⁷-Gua

AFLATOXIN M,

incidence: ?/?*, sa. const.: male tree shrews, wt.: 100–160 g, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: USA¹⁴², *control

incidence: 4?/4, sa. const.: male tree shrews, wt.: 100-160 g, contamination: artificial (dose: $400~\mu g~AFB_1$ (labeled)/ kg b. wt., by gavage, once; for detailed information please see the article), conc.: 0.74~pmol/mg~DNA~*** (mean value), country: USA^{142} , *after 24 h, ** AFM_1 - N^7 -Gua

Tree shrew serum may contain the following mycotoxins and/or their metabolites:

AFLATOXIN

incidence: 7?/7, sa. const.: male and female adult tree shrews, wt.t: 100-160 g, contamination: artificial (dose: 400 µg AFB₁/kg b. wt., o., daily for 4 weeks; for detailed information please see the article), conc. range: ≈≤20 pmol AF-albumin adducts/mg protein* ** (mean value), country: People's Republic of China/USA167, *control, **after 5 weeks during administration (also after other week intervals up to 11 weeks measured, lowest conc.: ≈5 pmol AF-albumin adducts/mg protein after 11 weeks) incidence: 6?/6, sa. const.: male and female adult tree shrews, wt.: 100-160 g, contamination: artificial (dose: 400 µg AFB,/kg b. wt., o., daily for 4 weeks and additionally 0.5 mmol oltipraz/kg, o. by gavage, daily for 5 weeks; for detailed information please see the article), conc. range: ≈≤5 pmol AF-albumin adducts/mg protein (mean value), country: People's Republic of China/USA¹⁶⁷, **after 5 weeks during administration (also after other week intervals up to 11 weeks measured, lowest conc.: ≈0.2 pmol AF-albumin adducts/mg protein after 8 and 10 weeks)

Tree shrew urine may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ½/?*, sa. const.: male tree shrews, wt.: 100–160 g, contamination: no AFB₁ (for detailed information please see the article), conc.: nr, country: USA¹⁴², *control

incidence: 4?/4, sa. const.: male tree shrews, wt.: 100-160 g, contamination: artificial (dose: $400 \mu g$ AFB₁ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: $0.60 \mu g$ creatinine * ** (mean value), country: USA¹⁴², *after 24 h, **AFB₁- N^7 -Gua

AFLATOXIN M₁

incidence: ?/?*, sa. const.: male tree shrews, wt.: 100–160 g, contamination: no

AFB₁ (for detailed information please see the article), conc.: nr, country: USA¹⁴², *control

incidence: 4?/4, sa. const.: male tree shrews, wt.: 100-160 g, contamination: artificial (dose: 400 µg AFB $_1$ (labeled)/kg b. wt., by gavage, once; for detailed information please see the article), conc.: 0.69 pmol/mg creatinine * ** (mean value), country: USA 142 , *after 24 h, **AFM $_1$ - N^7 -Gua

AFLATOXIN

incidence: 7?/7, sa. const.: male and female adult tree shrews, wt.: 100-160 g, contamination: artificial (dose: 400 µg AFB,/kg b. wt., o., daily for 4 weeks; for detailed information please see the article), Ø conc.: 6.34 ng AF-N⁷-Gua/mg creatinine* ** (mean value), country: People's Republic of China/USA167, *control, **at week 7 (AFB,administration ends at week 7) incidence: 6?/6, sa. const.: male and female adult tree shrews, wt.: 100-160 g, contamination: artificial (dose: 400 µg AFB,/kg b. wt., o., daily for 4 weeks and additionally 0.5 mmol oltipraz/kg, o. by gavage, daily for 5 weeks; for detailed information please see the article), Ø conc.: 0.47 ng AF-N⁷-Gua/mg creatinine* (mean value), country: People's Republic of China/USA167, *at week 7 (AFB₁- and oltiprazadministration ends at week 7)

Turkey

Turkey Natural Contamination

Turkey lung may contain the following mycotoxins and/or their metabolites:

GLIOTOXIN

incidence: 5/13, sa. const.: lungs from turkeys of the USA, contamination: natural, conc. range: 0.4–126.3 µg/g, Ø conc.: 42.16 µg/g, country: USA⁸²

Turkey plasma may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/36, sa. const.: plasma from Shaver star cross 2,288 turkeys of Japan, age: 31 weeks, contamination: natural, conc.: 12.3 pg/ml (mean value), country: Thailand/Japan⁵⁷⁸

Turkey Artificial Contamination

Turkey excreta may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Sweden/USA119, *control incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: 800 mg ZEA/kg diet, o., daily for 2 weeks; for detailed information please see the article), conc. range: ≈≤220 µg/g* ** (mean value), country: Sweden/USA119, *on the 3rd day of treatment (also measured on day 7 and 14, lowest conc.: ≈180 μg/g after 14 days), **free and conjugated ZEA

α-Zearalenol

incidence: $6/6^*$, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr**, country: Sweden/USA¹¹⁹, *control, **free and conjugated α -ZEAOL

incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: 800 mg ZEA/kg diet, o., daily for 2 weeks; for detailed information please see the article), conc. range: ≤644 ng/g* (mean value), country: Sweden/USA¹¹⁹, on

the 14th day of treatment (also measured on day 3 and 7, lowest conc.: \approx 470 µg/g after 3 days), **free and conjugated α -ZEAOL

Turkey heart may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Sweden/USA¹¹⁹, *control incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: 800 mg ZEA/kg diet, o., daily for 2 weeks; for detailed information please see the article), conc.: 57 ng/g* ** (mean value), country: Sweden/USA¹¹⁹, *free and conjugated ZEA, **after 14 days of ZEA-administration

α-Zearalenol

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr**, country: Sweden/USA¹¹⁹, *control, **free and conjugated α-ZEAOL incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: 800 mg ZEA/kg diet, o., daily for 2 weeks; for detailed information please see the article), conc.: 238 ng/g* ** (mean value), country: Sweden/USA¹¹⁹, *free and conjugated α-ZEAOL, **after 14 days of ZEA-administration

Turkey kidney may contain the following mycotoxins and/or their metabolites:

Fumonisin B,

incidence: 8?/8, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 10 mg FB,/kg b. wt., i.v.,

once), conc.: 50 µg/kg* (mean value), country: France480, *after 24 h incidence: 8?/8, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 100 mg FB,/kg b. wt., o., once), conc.: 5,785 ug/kg* (mean value), country: France480, *after 10 h incidence: 6/6*, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: no FB, + FB, (for detailed information please see the article), conc.: nd, country: France⁴⁸⁰, *control incidence: 6/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 5 mg FB, + FB,/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: nd*, country: France⁴⁸⁰, *after 8 h of final administration incidence: 6/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 10 mg FB₁ + FB₂/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: nd*, country: France⁴⁸⁰, *after 8 h of final administration incidence: 6?/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 20 mg FB, + FB,/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: 22 µg/kg* (mean value), country: France480, *after 8 h of final administration

ZEARALENONE

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Sweden/USA¹¹⁹, *control

incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: 800 mg ZEA/kg diet, o., daily for 2 weeks; for detailed information please see the article), conc.: 122 ng/g* ** (mean value), country: Sweden/USA¹¹⁹, *free and conjugated ZEA, **after 14 days of ZEA-administration

α -Zearalenol

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Sweden/USA¹¹⁹, *control incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks,

incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: 800 mg ZEA/kg diet, o., daily for 2 weeks; for detailed information please see the article), conc.: 477 ng/g* (mean value), country: Sweden/USA¹¹⁹, *free and conjugated α-ZEAOL, **after 14 days of ZEA-administration

Turkey liver may contain the following mycotoxins and/or their metabolites:

AFLATOXICOL

incidence: 4?/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: 0.70 ng/g* ** (mean value), country: USA⁶⁰⁹, *in **organic phase**, **after 3 weeks of AFB₁-administration incidence: 4?/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: 0.11 ng/g* ** (mean value), country: USA⁶⁰⁹, *in **aqueous phase**, **after 3 weeks of AFB₁-administration

AFLATOXIN B,

incidence: 4–5/4–5*, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB₁ addition (for detailed information please see the article), conc.: nd, country: USA¹05, *control incidence: ?/4–5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: 500 ppb AFB₁/g diet, o., for 18 days; for detailed information please see the article), conc. range: ≤0.10 ng AFB₁ eq/g* ** (mean value), country: USA¹05, *free AFB₁, **0 days after AF withdrawl (also measured after 1, 2 and 3 days, lowest conc.: 0.02 ng AFB, eq/g after 2 days)

incidence: ?/4-5*, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB, addition (for detailed information please see the article), conc.: nd, country: USA105, *control incidence: ?/4-5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: 500 ppb AFB,/g diet, o., for 18 days; for detailed information please see the article), conc. range: ≤0.28 ng AFB, eq/g* ** (mean value), country: USA¹⁰⁵, *conjugated AFB₁, **0 days after AF withdrawl (also measured after 1, 2 and 3 days, lowest conc.: 0.02 ng AFB, eq/g after 3 days)

incidence: 4?/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: 0.10 ng/g* ** (mean value), country: USA⁶⁰⁹, *in **organic phase**, **after 3 weeks incidence: 4?/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: 0.28 ng/g* ** (mean value), country: USA⁶⁰⁹, *in **aqueous phase**, **after 3 weeks

AFLATOXIN B,

incidence: 4?/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: tr* ** (mean value), country: USA⁶⁰⁹, *in **organic phase**, **after 3 weeks incidence: 4?/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: 0.04 ng/g* ** (mean value), country: USA⁶⁰⁹, *in **aqueous phase**, **after 3 weeks

Aflatoxin G,

incidence: 4/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: nd* ** (mean value), country: USA⁶⁰⁹, *in **organic phase**, **after 3 weeks incidence: 4?/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.:

0.04 ng/g* ** (mean value), country: USA⁶⁰⁹, *in **aqueous phase**, **after 3 weeks

AFLATOXIN G₂ incidence: 4/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: nd* ** (mean value), country: USA⁶⁰⁹, *in **organic phase**, **after 3 weeks incidence: 4?/4, sa. const.: turkey poults, contaminations artificial (dose: 500 ng

contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: 0.04 ng/g* ** (mean value), country: USA⁶⁰⁹, *in **aqueous phase**, **after 3 weeks

incidence: ?/4-5*, sa. const.: male Large

Aflatoxin M_1

White turkeys, age: 1 day, contamination: no AFB, (for detailed information please see the article), conc.: 0.04 ng/g** ***, country: USA105, *control, **free AFM,, ***0 days after AF withdrawl (up to 0 days measured) incidence: ?/4-5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: 500 ppb AFB,/g diet, o., for 18 days; for detailed information please see the article), conc. range: ≤0.44 ng AFM, eq/g* ** (mean values), country: USA105, *free AFM,, **0 days after AF withdrawl (also measured after 1, 2 and 3 days, lowest conc.: 0.02 ng AFB, eq/g after 1 and 3 days) incidence: ?/4-5*, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB, (for detailed information please see the article), conc.: 0.03 ng/g** ***, country: USA¹⁰⁵, *control, **conjugated AFM₁, ***0 days after AF withdrawl (up to 0 days measured) incidence: ?/4-5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: 500 ppb AFB,/g diet, o., for 18 days; for detailed information please see the article), conc. range: ≤0.42 ng AFM, eq/g* (mean values), country: USA¹⁰⁵, *conjugated AFM, **2 days after AF withdrawl (also measured after 0, 1 and 3 days, lowest conc.: 0.22 ng AFB, eq/g after 3 days)

incidence: 4?/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: 0.44 ng/g* ** (mean value), country: USA⁶⁰⁹, *in **organic phase**, **after 3 weeks incidence: 4?/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: 0.24 ng/g* ** (mean value), country: USA⁶⁰⁹, *in **aqueous phase**, **after 3 weeks

AFLATOXIN Q₁

incidence: 4/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: nd* ** (mean value), country: USA⁶⁰⁹, *in **organic phase**, **after 3 weeks incidence: 4/4, sa. const.: turkey poults, contamination: artificial (dose: 500 ng AFB₁/g diet, o., for 3 weeks), conc.: nd* ** (mean value), country: USA⁶⁰⁹, *in aqueous phase, **after 3 weeks

Fumonisin B, incidence: 8?/8, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 10 mg FB₁/kg b. wt., i.v., once), conc.: 46 µg/kg* (mean value), country: France⁴⁸⁰, *after 24 h incidence: 8?/8, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 100 mg FB,/kg b. wt., o., once), conc.: 5,458 μg/kg* (mean value), country: France480, *after 10 h incidence: 6/6*, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: no FB₁ + FB₂ (for detailed information please see the article), conc.: nd, country: France480, *control incidence: 6?/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 5 mg FB, + FB,/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: 33 µg/kg* (mean value), country: France⁴⁸⁰, *after 8 h of final administration incidence: 6?/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 10 mg FB, + FB,/kg diet, o., for 9 weeks; for detailed information

please see the article), conc.: 44 μg/kg* (mean value), country: France⁴⁸⁰, *after 8 h of final administration incidence: 6?/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 20 mg FB₁ + FB₂/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: 117 μg/kg* (mean value), country: France⁴⁸⁰, *after 8 h of final administration

ZEARALENONE

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Sweden/USA¹¹⁹, *control incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: 800 mg ZEA/kg diet, o., daily for 2 weeks; for detailed information please see the article), conc.: 276 ng/g* ** (mean value), country: Sweden/USA¹¹⁹, *free and conjugated ZEA, **after 14 days of ZEA-administration

α-Zearalenol

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Sweden/USA¹¹⁹, *control incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: **800 mg** ZEA/kg diet, o., daily for 2 weeks; for detailed information please see the article), conc.: 2,715 ng/g* ** (mean value), country: Sweden/USA¹¹⁹, *free and conjugated α-ZEAOL, **after 14 days of ZEA-administration

Turkey lung may contain the following mycotoxins and/or their metabolites:

ZEARALENONE

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks,

contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Sweden/USA¹¹⁹, *control

incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: 800 mg ZEA/kg diet, o, daily for 2 weeks; for detailed information please see the article), conc.: 56 ng/g* ** (mean value), country: Sweden/USA¹¹⁹, *free and conjugated ZEA, **after 14 days of ZEA-administration

α-Zearalenol

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Sweden/USA¹¹⁹, *control incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: **800 mg ZEA**/kg diet, o, daily for 2 weeks; for detailed information please see the article), conc.: 202 ng/g* ** (mean value), country: Sweden/USA¹¹⁹, *free and conjugated α-ZEAOL, **after 14 days of ZEA-administration

Turkey muscle may contain the following mycotoxins and/or their metabolites:

Fumonisin B,

incidence: 8/8, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: **10 mg FB**₁/kg b. wt., **i.v.**, once), conc.: nd*, country: France⁴⁸⁰, *after 24 h

incidence: 8?/8, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: **100 mg FB**₁/kg b. wt., **o.**, once), conc.: 113 µg/kg* (mean value), country: France⁴⁸⁰, *after 10 h

incidence: 6/6*, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: no FB₁ + FB₂ (for detailed information please see the article), conc.: nd, country: France⁴⁸⁰, *control

incidence: 6/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 5 mg FB, + FB,/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: nd*, country: France⁴⁸⁰, *after 8 h of final administration incidence: 6/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 10 mg FB, + FB,/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: nd*, country: France480, *after 8 h of last administration incidence: 6/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 20 mg FB, + FB,/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: nd*, country: France480, *after 8 h of final administration

Turkey muscle, breast may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B,

incidence: ?/4–5*, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB₁ addition (for detailed information please see the article), conc.: 0.01 ng/g**, country: USA¹⁰⁵, *control, **free AFB,

incidence: ?/4–5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: **500 ppb AFB**₁/g diet, o., for 18 days; for detailed information please see the article), conc. range: ≤0.03 ng AFB₁ eq/g* ** (mean values), country: USA¹05, *free AFB₁, **0 days after AF withdrawl (also measured after 1 and 2 days, lowest conc.: nd after 2 days) incidence: 4–5/4–5*, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB₁ addition (for detailed information please see the article), conc.: nd**, country: USA¹05, *control, **conjugated AFB₁

incidence: ?/4-5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: **500 ppb AFB**₁/g diet, o., for 18 days; for detailed information please see the article), conc.: nd* ** (mean values), country: USA¹⁰⁵, ***conjugated AFB**₁, **0 days after AF withdrawl (also measured after 1 and 2 days, but conc.: nd)

AFLATOXIN M,

incidence: 4-5/4-5*, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB, (for detailed information please see the article), conc.: nd**, country: USA¹⁰⁵, *control, **free AFM, incidence: ?/4-5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: 500 ppb AFB,/g diet, o., for 18 days; for detailed information please see the article), conc.: nd* **, country: USA105, *free AFM1, **0 days after AF withdrawl (also measured after 1 and 2 days, but conc.: nd) incidence: 4-5/4-5*, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB, (for detailed information please see the article), conc.: nd, country: USA¹⁰⁵, *control

incidence: ?/4–5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: 500 ppb AFB₁/g diet, o., for 18 days; for detailed information please see the article), conc.: nd* **, country: USA¹⁰⁵, *conjugated AFM₁, **0 days after AF withdrawl (up to 0 days measured)

Turkey muscle, thigh may contain the following mycotoxins and/or their metabolites:

Aflatoxin B_1

incidence: 4–5/4–5*, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB₁ (for detailed information please see the article), conc.: na, country: USA¹⁰⁵, *control

incidence: ?/4–5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: 500 ppb AFB,/g diet, o.,

for 18 days; for detailed information please see the article), conc.: 0.01 ng AFB, eq/g* ** (mean value), country: USA105, *free AFB,, **1 day after AF withdrawl (also measured after 2 days, but conc.: nd) incidence: 4-5/4-5*, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB, (for detailed information please see the article), conc.: na, country: USA105, *control incidence: 4-5/4-5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: 500 ppb AFB,/g diet, o., for 18 days; for detailed information please see the article), conc.: nd* ** (mean value), country: USA105, *conjugated AFB, **1 day after AF withdrawl (also measured after 2 days, but conc.: nd)

AFLATOXIN M,

incidence: $4-5/4-5^*$, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB₁ (for detailed information please see the article), conc.: na, country: USA¹⁰⁵, *control

incidence: ?/4-5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: 500 ppb AFB,/g diet, o., for 18 days; for detailed information please see the article), conc.: 0.07 ng AFM, eq/g* ** (mean value), country: USA105, *free AFM,, **1 day after AF withdrawl (also measured after 2 days, but conc.: nd) incidence: ?/4-5*, sa. const.: male Large White turkeys, age: 1 day, contamination: no AFB, (for detailed information please see the article), conc.: na, country: USA105, *control incidence: ?/4-5, sa. const.: male Large White turkeys, age: 1 day, contamination: artificial (dose: 500 ppb AFB,/g diet, o., for 18 days; for detailed information please see the article), conc.: 0.11 ng AFM, eq/g* (mean value), country: USA105, *conjugated AFM,, **1 day after AF withdrawl (also measured after 2 days, but conc.: nd)

Turkey plasma may contain the following mycotoxins and/or their metabolites:

Fumonisin B,

incidence: 8/8, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 10 mg FB₁/kg b. wt., i.v., once), conc.: nd*, country: France⁴⁸⁰, *after 24 h

incidence: 8?/8, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: **100 mg FB**₁/kg b. wt., **o.**, once), conc.: 279 µg/l* (mean value), country: France⁴⁸⁰, *after 10 h incidence: 6/6*, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: no FB₁ + FB₂ (for detailed information please see the article), conc.: nd, country: France⁴⁸⁰, *control

incidence: 6/6, sa. const.: male turkeys

(BUT 9 strain), age: 1 day, contamination: artificial (dose: 5 mg FB₁ + FB₂/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: nd*, country: France⁴⁸⁰, *after 8 h of final administration incidence: 6/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 10 mg FB, + FB,/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: nd*, country: France⁴⁸⁰, *after 8 h of final administration incidence: 6?/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 20 mg FB, + FB,/kg diet, o., for 9 weeks; for detailed information please see the article), conc.: 53 µg/l*

ZEARALENONE

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Sweden/USA¹¹⁹, *control incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: 800 mg ZEA/kg diet, o., daily for 2 weeks; for detailed information please see the article), conc. range: ≈≤99 ng/ml

(mean value), country: France⁴⁸⁰, *after

8 h of last administration

(mean value), country: Sweden/USA¹¹⁹, *on the 7th day of treatment (also measured on day 3 and 14, lowest conc.: ≈60 ng/ml after 3 days), **free and conjugated ZEA

α-Zearalenol

incidence: 6/6*, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: no ZEA (for detailed information please see the article), conc.: nr, country: Sweden/USA119, *control incidence: 6?/6, sa. const.: male Nicholas Broad White turkey poults, age: 3 weeks, contamination: artificial (dose: 800 mg ZEA/kg diet, o., daily for 2 weeks; for detailed information please see the article), conc. range: ≤194 ng/ml (mean value), country: Sweden/USA119, *on the 14th day of treatment (also measured on day 3 and 7, lowest conc.: ≈150 ng/ml after 3 days), **free and conjugated α-ZEAOL

Turkey serum may contain the following mycotoxins and/or their metabolites:

FUMONISIN B,

incidence: 6?/6, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 10 mg FB₁/kg b. wt., i.v., once), conc. range: ≈≤60?* µg/l, country: France⁴⁸⁰, *after 0 min (also after other min intervals up to 1,200 min measured, lowest conc.: nd after 1,200 min) incidence: 8?/8, sa. const.: male turkeys (BUT 9 strain), age: 1 day, contamination: artificial (dose: 100 mg FB₁/kg b. wt., o., once), conc. range: ≈≤999 µg/l*

(mean value), country: France⁴⁸⁰, *after 180 min (also at other min intervals up to 600 min measured, except for the start value conc.: ≈280 µg/l after 600 min)

Walleye fish see Fish, walleye fish

Woodchuck

Woodchuck Artificial Contamination

Woodchuck liver may contain the following mycotoxins and/or their metabolites:

AFLATOXIN B, -8,9-EPOXIDE incidence: 8/8*, sa. const.: eastern woodchucks, age: agematched, contamination: artificial (dose: AFB, (labeled and unlabeled) addition; for detailed information please see the article), conc. range: 2.95-9.12 nmol/15 min/mg protein**, Ø conc.: 6.34 nmol/15 min/mg protein**, country: Germany547, *WHV-free, **AFB, -8,9-epoxide formation rate incidence: 10/10*, sa. const.: eastern woodchucks, age: agematched, contamination: artificial (dose: AFB, (labeled and unlabeled) addition; for detailed information please see the article), conc. range: 0.72-9.74 nmol/15 min/mg protein**, Ø conc.: 2.89 nmol/15 min/mg protein**, country: Germany547, *WHV-positive, **AFB, -8,9-epoxide formation rate

Table 1. Mycotoxins and their metabolites in humans: natural contamination

Human aminotic fluid

Ochratoxin A

Human bile

Aflatoxin B

Human blood

Aflatoxicol; aflatoxin B_1 ; aflatoxin B_2 ; aflatoxin G_1 ; aflatoxin G_2 ; aflatoxin M_1 ; aflatoxin M_2 ; aflatoxin M_2 ; aflatoxin M_3 ; aflatoxin; ochratoxin M_3 ; aflatoxin M_3 ; aflatoxin; ochratoxin M_3 ; aflatoxin M_3 ; aflatoxin; ochratoxin M_3 ; aflatoxin M_3 ; aflatox

Human brain

Aflatoxicol; aflatoxin B_1 ; aflatoxin B_2 ; aflatoxin G_1 ; aflatoxin G_2 ; aflatoxin M_1 ; aflatoxin M_2

Human breast

Aflatoxin B,

Human breast milk

Aflatoxicol; aflatoxin B_1 ; aflatoxin B_2 ; aflatoxin G_1 ; aflatoxin G_2 ; aflatoxin M_1 ; aflatoxin M_2 ; aflatoxin M_2 ; aflatoxin M_3 & M_4 ; aflatoxin; ochratoxin A

Human cervix

Aflatoxin B,

Human colon

Aflatoxin B,

Human endometrium

Zearalenone

Human feces

Aflatoxin B₁; aflatoxin G₂; aflatoxin M₃; aflatoxin Q₃; aflatoxin; fumonisin B₃

Human funiculum

Ochratoxin A

Human hair

Fumonisin B₁; fumonisin B₂; fumonisin B₃

Human heart

Aflatoxin B₁; aflatoxin B₂

Human intestine

Aflatoxin B₁; aflatoxin B₂

Human kidney

Aflatoxin B₁; aflatoxin B₂; aflatoxin M₃; ochratoxin A

Human liver

Aflatoxicol; aflatoxin B_1 ; aflatoxin B_2 ; aflatoxin G_1 ; aflatoxin G_2 ; aflatoxin M_1 ; aflatoxin M_2 ; aflatoxin

Human lung

Aflatoxicol; aflatoxin B_1 ; aflatoxin B_2 ; aflatoxin G_1 ; aflatoxin G_2 ; aflatoxin M_1 ; aflatoxin M_2 ; aflatoxins

Human pancreas

Aflatoxin B,

Human placenta

Aflatoxin B₁; ochratoxin A

Human plasma

Aflatoxin B₁; aflatoxin B₂; aflatoxin G₃; ochratoxin A

Human rectum

Aflatoxin B.

Table 1. (Continued)

Human renal tissue

Ochratoxin A

Human semen

Aflatoxin G₁; aflatoxin M₂; aflatoxin M₃

Human serum

Aflatoxicol; aflatoxin B_1 ; aflatoxin B_2 ; aflatoxin B_{2a} ; aflatoxin B_1 ; aflatoxin B_2 ; aflatoxin B_2 ; aflatoxin B_2 ; aflatoxin B_2 ; aflatoxin B_3 ; aflato

Human serum/plasma

Ochratoxin A

Human spleen

Aflatoxin B₁; aflatoxin B₂; aflatoxin M₃; aflatoxin M₃

Human stomach

Aflatoxin B,; aflatoxin B,

Human stool

Aflatoxicol; aflatoxin B_1 ; aflatoxin B_2 ; aflatoxin G_1 ; aflatoxin G_2 ; aflatoxin M_1 ; aflatoxin M_2 ; ochratoxin A; 4-hydroxyochratoxin A; ochratoxin B

Human urine

Aflatoxicol; aflatoxin B_1 ; aflatoxin B_2 ; aflatoxin B_2 ; aflatoxin B_3 ; aflatoxin B_3 ; aflatoxin B_4 ; aflatoxin B_4 ; aflatoxin B_5 ; aflatoxin B_7 ; aflatoxin B_7 ; aflatoxin B_8 ; aflatoxin; aflatoxins; deoxynivalenol; fumonisin B_1 ; ochratoxin B_2 ; aflatoxin; aflatoxin;

Table 2. Mycotoxins and their metabolites in humans: artificial contamination

Human blood

Diacetoxyscirpenol; HT-2 toxin; nivalenol; T-2 toxin; verrucarol

Human esophagus

HT-2 toxin; T-2 toxin

Human feces

Verrucarol

Human heart

HT-2 toxin

Human intestine

HT-2 toxin; T-2 toxin

Human kidney

Diacetoxyscirpenol; T-2 toxin

Human lung

T-2 toxin

Human stomach

HT-2 toxin; T-2 toxin

Human urine

Diacetoxyscirpenol; HT-2 toxin; nivalenol; T-2 toxin; verrucarol

Table 3. Mycotoxins and their metabolites in animals: natural contamination

Aflatoxin B,

Beef liver; calf liver; chicken liver; chicken muscle; cow liver; cow milk, raw; duck liver;

hare liver; hen egg; horse liver; pig liver; pig plasma; steer kidney; turkey plasma

Aflatoxin G.

Beef liver

Aflatoxin M,

Beef liver; buffalo milk, raw; camel milk; cow milk, raw; dog liver; goat milk, raw;

pig kidney; pig liver; sheep milk, raw; sheep/goat milk, raw; steer kidney

Aflatoxin M.

Cow milk, raw

Aflatoxin M

Cow milk, raw

Citrinin

Pig kidney; pig serum; pig urine

Deoxynivalenol

Hen egg; pig bile; pig digesta; pig liver; pig muscle; pig serum; pig urine

Deepoxydeoxynivalenol

Hen egg; pig digesta

Fumonisin B,

Cow milk, raw

Gliotoxin

Camel fetus; camel intestine; camel rumen; cattle udder; turkey lung

Ochratoxin A

Cat kidney; cow milk, raw; dog kidney; pig blood; pig kidney; pig liver; pig meat; pig muscle; pig plasma; pig serum; pig urine; poultry

Penicillic acid

Pig serum; pig urine

Penitrem A

Dog brain; dog kidney; dog liver; dog stomach; pig serum; pig urine

Penitrem E

Dog kidney; dog liver

Thomitrems

Dog stomach

Roquefortine C

Dog brain; dog kidney; dog liver; dog stomach

Zeranol

Cattle bile

Zearalanols

Cattle urine; deer urine; goat urine; horse urine; lamb urine; sheep urine

Zearalenone

Pig bile; pig liver; pig muscle; pig serum; pig urine

α-Zearalenol

Cattle bile; pig bile

β-Zearalenol

Cattle bile

Zearalenols

Cattle urine; deer urine; goat urine; horse urine; lamb urine; sheep urine

Table 4. Mycotoxins and their metabolites in animals: artificial contamination

Aflatoxicol

Chicken kidney; chicken liver; chicken muscle, thigh; chicken skin; cow bile; cow kidney; cow liver; cow milk, raw; cow plasma; cow red blood cells; cow rumen; cow urine; fish, coho salmon bile; fish, rainbow trout bile; fish, rainbow trout egg; fish, rainbow trout embryo; fish, rainbow trout liver; fish, rainbow trout plasma; hen egg; hen kidney; hen liver; hen muscle, breast; hen muscle, thigh; hen ova; hen skin; lamb kidney; pig kidney; pig liver; pig muscle; turkey liver

Aflatoxicol M.

Fish, coho salmon bile; fish, rainbow trout bile; fish, rainbow trout liver *Aflatoxin B*

Calf liver; chicken blood; chicken crop; chicken excreta; chicken gastrointestinal tract; chicken gizzard; chicken heart; chicken kidney; chicken liver; chicken lung; chicken muscle; chicken muscle, breast; chicken muscle, leg; chicken muscle, thigh; chicken skin; cow bile; cow blood; cow brain; cow fat; cow feces; cow gallbladder; cow heart; cow intestine; cow kidney; cow liver; cow lung; cow lymph; cow mammary gland; cow milk, raw; cow muscle; cow plasma; cow red blood cells; cow rumen; cow spleen; cow tongue; cow urine; duck serum; ewe feces; ewe milk, raw; ewe urine; fish, channel catfish bile; fish, channel catfish fat; fish, channel catfish kidney; fish, channel catfish liver; fish, channel catfish muscle; fish, channel catfish plasma; fish, channel catfish skin; fish, channel catfish spleen; fish, channel catfish urine; fish, coho salmon bile; fish, coho salmon embryo; fish, coho salmon liver; fish, medaka liver; fish, rainbow trout bile; fish, rainbow trout blood; fish, rainbow trout carcass; fish, rainbow trout egg; fish, rainbow trout embryo; fish, rainbow trout liver; fish, rainbow trout plasma; fish, rainbow trout red blood cells; fish, walleye fish muscle; fish, zebrafish liver; guinea pig liver; guinea pig plasma; hamster kidney; hamster liver; hamster plasma; hen blood; hen blood clot; hen egg; hen excreta; hen gizzard; hen heart; hen kidney; hen liver; hen muscle; hen muscle, breast; hen muscle, leg; hen muscle, thigh; hen ova; hen serum; hen skin; lamb feces; lamb kidney; lamb liver; lamb urine; monkey, macaque bile; monkey, macaque blood; monkey, macaque brain; monkey, macaque heart; monkey, macaque kidney; monkey, macaque liver; monkey, macaque lung; monkey, macaque pancreas; monkey, macaque spleen; monkey, marmoset liver; mouse kidney; mouse liver; mouse milk; mouse plasma; mouse serum; pig bile; pig blood; pig brain; pig fat; pig gallbladder; pig heart; pig kidney; pig liver; pig lung; pig muscle; pig spleen; pig urine; pony cecum; pony kidney; pony liver; pony muscle; pony rectum; pony stomach; rat bile; rat feces; rat kidney; rat liver; rat lung; rat milk; rat plasma; rat serum; rat urine; steer bile; steer blood; steer feces; steer heart; steer kidney; steer liver; steer lung; steer muscle; steer pancreas; steer rumen; steer spleen; steer urine; tree shrew liver; tree shrew urine; turkey liver; turkey muscle, breast; turkey muscle, thigh

Aflatoxin B₁-8,9-epoxide
Rat liver; woodchuk liver
2,3-Dihydro-2,3-dihydroxyaflatoxin B₁
Rat liver
8,9-Dihydro-8,9-dihydroxyaflatoxin B₁
Rat liver
Aflatoxin B₂

Chicken crop; chicken excreta; chicken gizzard; chicken heart; chicken kidney; chicken liver; chicken muscle; chicken muscle, breast; chicken muscle, leg; cow liver; hen blood clot; hen egg; hen gizzard; hen heart; hen kidney; hen liver; hen muscle, breast; hen muscle, leg; hen ova; hen serum; pig gallbladder; pig heart; pig kidney; pig liver; pig muscle; pig spleen; steer heart; steer kidney; steer liver; steer muscle; steer spleen; turkey liver

Table 4. (Continued)

Aflatoxin B,

Chicken kidney; chicken liver; hen blood clot; hen egg; hen gizzard; hen heart; hen kidney; hen liver; hen muscle, breast; hen muscle, leg; hen ova; hen serum; lamb kidney; lamb urine; pig heart; pig kidney; pig liver; pig muscle; pig spleen

Aflatoxin B

Pig liver; rat bile; rat serum; rat urine

Aflatoxin G,

Chicken excreta; chicken gizzard; chicken liver; cow feces; cow urine; ewe feces; ewe milk, raw; ewe urine; fish, walleye fish muscle; hen egg; hen gizzard; hen liver; lamb feces; lamb kidney; lamb liver; lamb urine; pig kidney; pig liver; rat kidney; rat liver; steer heart; steer kidney; steer liver; steer muscle; steer spleen; turkey liver

Aflatoxin G,

Chicken excreta; fish, walleye fish muscle; hen gizzard; pig kidney; pig liver; steer heart; steer kidney; steer liver; steer muscle; turkey liver

Aflatoxin G2

Chicken liver

Aflatoxin M,

Buffalo milk, raw; calf kidney; calf liver; chicken crop; chicken fat; chicken gizzard; chicken kidney; chicken liver; chicken muscle; chicken muscle, breast; chicken muscle, leg; chicken muscle, thigh; cow bile; cow blood; cow brain; cow feces; cow gallbladder; cow heart; cow intestine; cow kidney; cow liver; cow lung; cow lymph; cow mammary gland; cow milk, raw; cow muscle; cow plasma; cow red blood cells; cow rumen; cow spleen; cow tongue; cow urine; deer liver; deer muscle; ewe feces; ewe milk, raw; ewe urine; fish, rainbow trout liver; fish, rainbow trout plasma; goat milk, raw; hen blood clot; hen egg; hen gizzard; hen heart; hen kidney; hen liver; hen muscle, breast; hen muscle, leg; hen muscle, thigh; hen ova; lamb feces; lamb kidney; lamb liver; lamb urine; mouse milk; pig blood; pig gallbladder; pig heart; pig kidney; pig liver; pig muscle; pig spleen; pig urine; pony kidney; pony liver; pony muscle; rat bile; rat feces; rat liver; rat milk; rat urine; sheep milk, raw; sheep urine; steer bile; steer blood; steer feces; steer heart; steer kidney; steer liver; steer lung; steer muscle; steer pancreas; steer rumen; steer spleen; steer urine; tree shrew liver; tree shrew urine; turkey liver; turkey muscle, thigh

Aflatoxin M,

Chicken gizzard; chicken heart; chicken kidney; chicken liver; chicken muscle, breast; chicken muscle, leg; hen blood clot; hen egg; hen gizzard; hen heart; hen kidney; hen liver; hen muscle, breast; hen muscle, leg; hen ova; hen serum; sheep urine

Aflatoxin M

Cow milk, raw; pig gallbladder; pig heart; pig kidney; pig liver; pig muscle; pig spleen $Aflatoxin\ P$.

Rat bile; rat urine

Aflatoxin Q,

Rat bile; rat feces; rat liver; rat urine; turkey liver

Aflatoxin

Chicken heart; chicken liver; chicken muscle, breast; duck liver; duck plasma; hen egg; rat; rat liver; rat plasma; rat serum; rat urine; tree shrew serum; tree shrew urine

Aflatoxins

Hen adrenal; hen bile; hen digestive tract; hen egg; hen excreta; hen fat; hen gizzard; hen heart; hen liver; hen lung; hen muscle, breast; hen muscle, leg; hen muscle, wing; hen ova; hen pancreas; hen reproductive organs; hen skin; hen spleen; rat blood; rat feces; rat kidney; rat liver; rat lung; rat trachea; rat urine

Table 4. (Continued)

Citrinin

Hen egg; hen muscle, red; hen muscle, white; pig kidney

Cyclopiazonic acid

Chicken muscle; ewe milk, raw; hen egg; pig muscle; pig plasma; rat muscle

Deoxynivalenol

Cow feces; cow urine; hen; hen bile; hen egg; hen excreta; hen fat; hen gizzard; hen kidney; hen liver; hen plasma; mouse brain; mouse heart; mouse intestine; mouse kidney; mouse liver; mouse lung; mouse Peyer's patches; mouse plasma; mouse spleen; pig adrenals; pig bile; pig brain; pig colon; pig fat; pig feces; pig heart; pig intestine; pig kidney; pig liver; pig lung; pig lymph; pig muscle; pig pancreas; pig plasma; pig serum; pig skin; pig spleen; pig stomach; pig testes; pig urine; sheep bile; sheep feces; sheep milk, raw; sheep plasma; sheep rumen; sheep urine

Deepoxydeoxynivalenol

Cow feces; cow milk, raw; cow urine; pig bile; pig feces; pig kidney; pig liver; pig muscle; pig serum; pig urine; sheep bile; sheep feces; sheep milk, raw; sheep plasma; sheep urine Deoxynivalenol + Deepoxydeoxynivalenol

Pig cecum; pig colon; pig rectum

Fumonisin B,

Cattle feces; cattle urine; cow milk, raw; cow plasma; hen plasma; monkey, vervet plasma; pig bile; pig brain; pig eye; pig fat; pig feces; pig kidney; pig liver; pig lung; pig muscle; pig myocardium; pig pancreas; pig spleen; pig urine; pig, sow milk; rat bile; rat feces; rat plasma; rat urine; sheep feces; sheep urine; turkey kidney; turkey liver; turkey muscle; turkey plasma; turkey serum

Hydrolized fumonisin B,

Cattle feces; rat feces; sheep feces

Fumonisin B.

Monkey, vervet plasma; pig bile; pig fat; pig feces; pig kidney; pig liver; pig lung; pig muscle; pig myocardium; pig spleen; pig urine

Fusarenon-X

Chicken plasma; duck plasma; hen excreta

Fusaric acid

Rat stomach

Gliotoxin

Mouse lung; mouse serum

HT-2 toxin

Cat blood; cat heart; cat kidney; cat liver; cat lung; cat urine; chicken excreta; chicken liver; chicken lung; cow blood; cow kidney; cow lung; cow urine; dog plasma; pig bile; pig bone marrow; pig brain; pig duodenum; pig heart; pig ileum; pig intestine; pig jejunum; pig kidney; pig liver; pig lung; pig lymph; pig muscle; pig pancreas; pig skin; pig spleen; pig stomach; rat kidney; rat liver

Deepoxy-HT-2 toxin

Pig ileum; pig intestine; pig jejunum; pig kidney; pig liver; pig lung; pig stomach

3'-Hydroxy-HT-2 toxin

Cat blood, cat heart, cat kidney, cat liver, cat lung, cat urine, chicken excreta, chicken liver, chicken lung, cow blood, cow urine, pig bile; pig bone marrow; pig brain; pig duodenum; pig heart; pig ileum; pig intestine; pig jejunum; pig kidney; pig liver; pig lung; pig lymph; pig muscle; pig pancreas; pig spleen; pig stomach

Deepoxy-3'-hydroxy-HT-2 toxin

Cow urine

3-Acetoxy-3'-hydroxy-HT-2 toxin

Chicken excreta

Table 4. (Continued)

Neosolaniol

Pig bile; pig skin

4-Deacetylneosolaniol

Pig bile; pig skin

Nivalenol

Chicken plasma; duck plasma; hen bile; hen excreta; hen liver; pig blood; pig feces; pig urine Deepoxynivalenol

Hen excreta

Ochratoxin A

Calf feces; calf kidney; calf muscle; calf serum; calf urine; chicken chest; chicken excreta; chicken female repro tract; chicken gizzard; chicken heart; chicken intestine; chicken kidney; chicken liver; chicken lung; chicken muscle; chicken muscle, leg; chicken muscle, red; chicken muscle, thigh; chicken muscle, white; chicken plasma; chicken serum; chicken skin; chicken stomach; cow kidney; ewe milk, raw; ewe plasma; fish, carp plasma; hen blood; hen cloaca; hen egg; hen fat; hen gizzard; hen heart; hen intestine; hen kidney; hen liver; hen lung; hen muscle, breast; hen muscle, leg; hen muscle, red; hen muscle, thigh; hen muscle, white; hen plasma; hen serum; hen skin; hen stomach; monkey, macaque plasma; mouse amniotic fluid; mouse embryo; mouse kidney; mouse liver; mouse placenta; mouse plasma; mouse serum; pig bile; pig blood; pig brain; pig fat; pig feces; pig heart; pig intestine; pig kidney; pig liver; pig muscle; pig placenta; pig plasma; pig serum; pig spleen; pig stomach; pig urine; quail egg; quail kidney; quail plasma; rabbit kidney; rabbit liver; rabbit mammary gland; rabbit milk; rabbit muscle; rabbit plasma; rat bile; rat blood; rat brain; rat colon; rat duodenum; rat feces; rat fetal extracts; rat heart; rat ileum; rat kidney; rat liver; rat lymph; rat milk; rat muscle; rat plasma; rat serous fluid and mucus; rat serum; rat stomach; rat urine; sheep feces; sheep rumen; sheep serum; sheep urine

Ochratoxin \alpha

Calf feces; calf kidney; calf muscle; calf plasma; calf serum; calf urine; ewe milk, raw; ewe plasma; pig feces; pig urine; rat bile; rat blood; rat feces; rat serous fluid and mucus; rat urine; sheep feces; sheep rumen; sheep serum; sheep urine

Lactone opened ochratoxin A

Rat bile; rat urine

4-Hydroxyochratoxin A

Rat bile; rat urine

Ochratoxin B

Pig serum; rat bile; rat plasma; rat urine

Ochratoxin B

Pig feces; pig urine

Ochratoxin C

Rat blood

Penicillic acid

Chicken gizzard; chicken heart; chicken kidney; chicken liver

Penitrem A

Mouse brain; mouse gastrointestinal tract; mouse kidney; mouse liver

Scirpentriol

Cattle urine; pig plasma; pig serum; pig urine

Diacetoxyscirpenol

Cattle urine; pig serum; pig urine

Table 4. (Continued)

Monoacetoxyscirpenol

Cattle urine; pig serum; pig urine

Taleranol

Cattle urine

Trichothecenes

Guinea pig adrenal; guinea pig bile; guinea pig brain; guinea pig fat; guinea pig heart; guinea pig kidney; guinea pig liver; guinea pig lung; guinea pig muscle; guinea pig plasma; guinea pig spleen; guinea pig testes

Macrocyclic trichothecene

Goat lung; goat lymph; goat serum; goat spleen

T-2 toxin

Cat heart; cat kidney; cat lung; cattle omasum; cattle plasma; cattle rumen; chicken excreta; chicken liver; cow blood; cow heart; dog plasma; mouse blood; pig bile; pig blood; pig bone marrow; pig brain; pig colon; pig duodenum; pig fat; pig heart; pig ileum; pig intestine; pig jejunum; pig kidney; pig liver; pig lung; pig lymph; pig muscle; pig pancreas; pig plasma; pig skin; pig spleen; pig stomach; pig tissue; pig urine

3'-Hydroxy-T-2 toxin

Cat heart; cat kidney; cat lung; chicken excreta; cow urine; pig bile; pig bone marrow; pig brain; pig duodenum; pig heart; pig ileum; pig intestine; pig jejunum; pig kidney; pig liver; pig lung; pig lymph; pig muscle; pig pancreas; pig spleen; pig stomach

3'-Hydroxy-Iso-T-2 toxin

Cow urine

T-2 Tetraol

Cat blood; cat heart; cat kidney; cat liver; cat lung; cat urine; chicken excreta; chicken liver; cow blood; cow urine; pig bile; pig bone marrow; pig duodenum; pig heart; pig ileum; pig jejunum; pig kidney; pig liver; pig lung; pig lymph; pig pancreas; pig skin; pig spleen; pig stomach

Deepoxy-T-2 tetraol

Cow blood; cow urine; pig bone marrow; pig brain; pig duodenum; pig heart; pig ileum; pig intestine; pig jejunum; pig kidney; pig liver; pig lung; pig lymph; pig muscle; pig pancreas; pig spleen; pig stomach

4-Acetoxy-T-2 tetraol

Chicken excreta; chicken liver

8-Acetoxy-T-2 tetraol

Chicken excreta

15-Acetoxy-T-2 tetraol

Chicken excreta; chicken liver

T-2 triol

Chicken excreta; chicken liver; pig bile; pig bone marrow; pig brain; pig duodenum; pig heart; pig ileum; pig intestine; pig jejunum; pig kidney; pig liver; pig lung; pig lymph; pig muscle; pig pancreas; pig skin; pig spleen; pig stomach

Deepoxy-T-2 triol

Pig duodenum; pig ileum; pig intestine; pig jejunum; pig kidney; pig liver; pig spleen; pig stomach

Verrucarol

Dog plasma

Zearalanone

Cattle urine

Table 4. (Continued)

Zearalenone

Cattle liver; cattle urine; chicken bile; chicken blood; chicken excreta; chicken fat; chicken gizzard; chicken heart; chicken liver; chicken meat; chicken muscle; chicken plasma; chicken skin; cow milk, raw; cow plasma; duck bile; hen adrenal; hen bile; hen blood; hen brain; hen clutch; hen comb; hen egg; hen fat; hen gallbladder; hen heart; hen kidney; hen liver; hen lung; hen muscle, breast; hen muscle, leg; hen muscle, wing; hen oviduct; hen pancreas; hen plasma; hen red blood cells; hen spleen; pig bile; pig blood; pig feces; pig kidney; pig liver; pig muscle; pig plasma; pig serum; pig spleen; pig urine; rat blood; rat brain; rat fat; rat heart; rat intestine; rat kidney; rat liver; rat lung; rat muscle; rat serum; rat stomach; rat spleen; rat testes; rat urine; sheep milk, raw; sheep urine; turkey excreta; turkey heart; turkey kidney; turkey liver; turkey lung; turkey plasma ox-Zearalenol

Cattle liver; cattle urine; chicken bile; chicken excreta; chicken liver; chicken meat; chicken plasma; cow milk, raw; duck bile; pig bile; pig blood; pig fat; pig feces; pig heart; pig kidney; pig liver; pig lymph; pig muscle; pig pancreas; pig plasma; pig serum; pig spleen; pig urine; rat liver; rat urine; turkey excreta; turkey heart; turkey kidney; turkey liver; turkey lung; turkey plasma

B-Zearalenol

Cattle liver; cattle urine; chicken excreta; chicken liver; chicken meat; cow milk, raw; duck bile; pig bile; pig fat; pig feces; pig kidney; pig liver; pig muscle; pig serum; pig spleen; pig urine; rat liver; rat urine; sheep milk, raw; sheep urine

Zearalanone

Chicken meat

B-Zearalanone

Chicken meat

Zearalenol

Pig, sow milk

Zeranol

Cattle urine

- Abdulrazzaq, Y.M., Osman, N., Yousif, Z.M., Al-Falahi, S., 2003: Aflatoxin M₁ in breast-milk of UAE women. Annals of Tropical Paediatrics 23, 173–179
- 2. Amra, H.A., 1998: Survey of aflatoxin M_1 in Egyptian raw milk by enzyme-linked immunosorbent assay. Revue de Médicine Vétérinaire 149, 695
- 3. Amla, I., Kumari, S., Sreenivasa Murthy, V., Jayaraj, P., Parpia, H.A.P., 1970: Role of aflatoxin in Indian childhood cirrhosis. Indian Pediatrics 7, 262–270
- 4. Phillips, D.L., Yourtee, D.M., Searles, S., 1976: Presence of aflatoxin B₁ in human liver in the United States. Toxicology and Applied Pharmacology 36, 403–406
- Turner, P.C., Mendy, M., Whittle, H., Fortuin, M, Hall, A.J., Wild, C.P., 2000: Hepatitis B infection and aflatoxin biomarker levels in Gambian children. Tropical Medicine and International Health 5, 837–841
- Cova, L., Wild, C.P., Mehrotra, R., Turusov, V., Shirai, T., Lambert, V., Jacquet, C., Tomatis, L., Trépo, C., Montesano, R., 1990: Contribution of aflatoxin B₁ and hepatitis B virus infection in the induction of liver tumors in ducks. Cancer Research 50, 2156–2163
- Campbell, T.C., Chen, J., Liu, C., Parpia, B., 1990: Nonassociation of aflatoxin with primary liver cancer in a cross-sectional ecological survey in the People's Republic of China. Cancer Research 50, 6882–6893
- 8. Chaves-Carballo, E., Ellefson, R.D., Gomez, M.R., 1976: An aflatoxin in the liver of a patient with Reye-Johnson Syndrome. Mayo Clinic Proceedings 51, 48–50
- 9. Bukovjan, K., Prošek, J., Bukovjanová, E., 1990: Preliminary results of the aflatoxin B₁ content in liver tissue in the hare (*Lepus europaeus*). Československá Hygiena 35, 13–18 [Czech]
- Shank, R.C., Bourgeois, C.H., Keschamras, N., Chandavimol, P., 1971: Aflatoxins in autopsy specimens from Thai children with an acute disease of unknown aetiology. Food and Cosmetics Toxicology 9, 501–507
- 11. Hendrickse, R.G., 1984: The influence of aflatoxins on child health in the tropics with particular reference to kwashiorkor. Transactions of the Royal Society of Tropical Medicine and Hygiene 78, 427–435
- 12. Qian, G.-S., Ross, R.K., Yu, M.C., Yuan, J.-M., Gao, Y.-T., Henderson, B.E., Wogan, G.N., Groopman, J.D., 1994: A follow-up study of urinary markers of aflatoxin exposure and liver cancer risk in Shanghai, People's Republic of China. Cancer Epidemiology, Biomarkers & Prevention 3, 3–10
- 13. Wild, C.P., Yin, F., Turner, P.C., Chemin, I., Chapot, B., Mendy, M., Whittle, H., Kirk, G.D., Hall, A.J., 2000: Environmental and genetic determinants of aflatoxin-albumin adducts in The Gambia. International Journal of Cancer 86, 1–7
- 14. Yu, M.-W., Chiang, Y.-C., Lien, J.-P., Chen, C.-J., 1997: Plasma antioxidant vitamins, chronic hepatitis B virus infection and urinary aflatoxin B₁-DNA adducts in healthy males. Carcinogenesis 18, 1189–1194
- Wild, C.P., Jiang, Y.-Z., Allen, S.J., Jansen, L.A.M., Hall, A.J., Montesano, R., 1990: Aflatoxinalbumin adducts in human sera from different regions of the world. Carcinogenesis 11, 2271–2274

16. Kirby, G.M., Chemin, I., Montesano, R., Chisari, F.V., Lang, M.A., Wild, C.P., 1994: Induction of specific cytochrome P450s involved in aflatoxin B₁ metabolism in hepatitis B virus transgenic mice. Molecular Carcinogenesis 11, 74–80

- 17. Diallo, M.S., Syila, A., Sidibé, K., Sylla, B.S., Trepo, C.R., Wild, C.P., 1995: Prevalence of exposure to aflatoxin and hepatitis B and C virus in Guinea, West Africa. Natural Toxins 3, 6–9
- 18. Autrup, H., Bradley, K.A., Shamsuddin, A.K.M., Wakhisi, J., Wasunna, A., 1983: Detection of putative adduct with fluorescence characteristics identical to 2,3-dihydro-2-(7'-guanyl) -3-hydroxyaflatoxin B₁ in human urine collected in Murang'a district, Kenya. Carcinogenesis 4, 1193–1195
- 19. Siray, M.Y., Hayes, A.W., Unger, P.D., Hogan, G.R., Ryan, N.J., Wray, B.B., 1981: Analysis of aflatoxin $\rm B_1$ in human tissues with high-pressure liquid chromatography. Toxicology and Applied Pharmacology 58, 422–430
- 20. Wray, B.B., Hayes, A.W., 1980: Aflatoxin $\rm B_1$ in the serum of a patient with primary hepatic carcinoma. Environmental Research 22, 400–403
- 21. Tsuboi, S., Nakagawa, T., Tomita, M., Seo, T., Ono, H., Kawamura, K., Iwamura, N., 1984: Detection of aflatoxin $\rm B_1$ in serum samples of male Japanese subjects by radioimmunoassay and high-performance liquid chromatography. Cancer Research 44, 1231–1234
- 22. Wang, J.-S., Qian, G.-S., Zarba, A., He, X., Zhu, Y.-R., Zhang, B.-C., Jacobson, L., Gange, S.J., Muñoz, A., Kensler, T.W., Groopman, J.D., 1996: Temporal patterns of aflatoxinalbumin adducts in hepatitis B surface antigen-positive and antigen-negative residents of Daxin, Qidong County, People's Republic of China. Cancer Epidemiology, Biomarkers & Prevention 5, 253–261
- 23. Wild, C.P., Fortuin, M., Donato, F., Whittle, H.C., Hall, A.J., Wolf, C.R., Montesano, R., 1993: Aflatoxin, liver enzymes, and hepatitis B virus infection in Gambian children. Cancer Epidemiology, Biomarkers & Prevention 2, 555–561
- 24. Wild, C.P., Hasegawa, R., Barraud, L., Chutimataewin, S., Chapot, B., Ito, N., Montesano, R., 1996: Aflatoxin-albumin adducts: a basis for comparative carcinogenesis between animals and humans. Cancer Epidemiology, Biomarkers & Prevention 5, 179–189
- Groopman, J.D., Jiaqi, Z., Donahue, P.R., Pikul, A., Lisheng, Z., Jun-shi, C., Wogan, G.N., 1992:
 Molecular dosimetry of urinary aflatoxin-DNA-adducts in people living in Guangxi Autonomous Region, People's Republic of China. Cancer Research 52, 45–52
- Sheabar, F.Z., Groopman, J.D., Qian, G.-S., Wogan, G.N., 1993: Quantitative analysis of aflatoxin albumin adducts. Carcinogenesis 14, 1203–1208
- 27. Wild, C.P., Garner, R.C., Montesano, R., Tursi, F., 1986: Aflatoxin B₁ binding to plasma albumin and liver DNA upon chronic administration to rats. Carcinogenesis 7, 853-858
- Stora, C., Dvorackova, I., Ayraud, N., 1981: Characterization of aflatoxin B₁ (AFB) in human liver cancer. Research Communications in Chemical Pathology and Pharmacology 31, 77–85
- 29. Hollstein, M.C., Wild, C.P., Bleicher, F., Chutimataewin, S., Harris, C.C., Srivanakul, P., Montesano, R., 1993: p53 mutations and aflatoxin B₁ exposure in hepatocellular carcinoma patients from Thailand. International Journal of Cancer 53, 51–55
- Wild, C.P., Jansen, L.A.M., Cova, L., Montesano, R., 1993: Molecular dosimetry of aflatoxin exposure: contribution to understanding the multifactorial etiopathogenesis of primary hepatocellular carcinoma with particular reference to hepatitis B virus. Environmental Health Perspectives 99, 115–122
- 31. Cova, L., Mehrotra, R., Wild, C.P., Chutimataewin, S., Cao, S.F., Duflot, A., Prave, M., Yu, S.Z., Montesano, R., Trepo, C., 1994: Duck hepatitis B virus infection, aflatoxin B₁ and liver cancer in domestic Chinese ducks. British Journal of Cancer 69, 104–109
- Coulter, J.B.S., Suliman, G.I., Lamplugh, S.M., Mukhtar, B.I., Hendrickse, R.G., 1986: Aflatoxins in liver biopsies from Sudanese children. American Journal of Tropical Medicine and Hygiene 35, 360–365

33. Allen, S.J., Wild, C.P., Wheeler, J.G., Riley, E.M., Montesano, R., Bennett, S., Whittle, H.C., Hall, A.J., Greenwood, B.M., 1992: Aflatoxin exposure, malaria and hepatitis B infection in rural Gambian children. Transactions of the Royal Society of Tropical Medicine and Hygiene 86, 426–430

- 34. Kensler, T.W., Egner, P.A., Trush, M.A., Bueding, E., Groopman, J.D., 1985: Modification of aflatoxin B₁ binding to DNA *in vivo* in rats fed phenolic antioxidants, ethoxyquin and a dithiothione. Carcinogenesis 6, 759–763
- 35. Becroft, D.M., Webster, D.R., 1972: Aflatoxins and Reye's disease. British Medical Journal 4, 117
- Hendrickse, R.G., Coulter, J.B.S., Lamplugh, S.M., MacFarlane, S.B.J., Williams, T.E., Omer, M.I.A., Suliman, G.I., 1982: Aflatoxins and kwashiorkor: a study in Sudanese children. British Medical Journal 285, 843–846
- 37. Turner, P.C., Moore, S.E., Hall, A.J., Prentice, A.M., Wild, C.P., 2003: Modification of immune function through exposure to dietary aflatoxin in Gambian children. Environmental Health Perspectives 111, 217–220
- 38. Nabney, J., Burbage, M.B., Allcroft, R., Lewis, G., 1967: Metabolism of aflatoxin in sheep: excretion pattern in the lactating ewe. Food and Cosmetics Toxicology 5, 11–17
- 39. Patterson, D.S.P., Glancy, E.M., Roberts, B.A., 1980: The "carry over" of aflatoxin M_1 into the milk of cows fed rations containing a low concentration of aflatoxin B_1 . Food and Cosmetics Toxicology 18, 35–37
- 40. Allcroft, R., Roberts, B.A., Lloyd, M.K., 1968: Excretion of aflatoxin in a lactating cow. Food and Cosmetics Toxicology 6, 619–625
- 41. Zhu, J-Q., Zhang, L.-S., Hu, X., Xiao, Y., Chen, J.-S., Xu, Y.-C., Fremy, J., Chu, F.S., 1987: Correlation of dietary aflatoxin B_1 levels with excretion of aflatoxin M_1 in human urine. Cancer Research 47, 1848–1852
- 42. Croy, R.G., Wogan, G.N., 1981: Temporal patterns of covalent DNA adducts in rat liver after single and multiple doses of aflatoxin B,. Cancer Research 41, 197–203
- 43. Choudhary, P.L., Sharma, R.S., Borkhatriya, V.N., Murthi, T.N., Wadodkar, U.R., 1997: Survey on the levels of aflatoxin M₁ in raw and market milk in and around Anand Town. Indian Journal of Dairy Science 50, 156–158
- 44. Domagala, J., Kisza, J., Blüthgen, A., Heeschen, W., 1997: Contamination of milk with aflatoxin M. in Poland. Milchwissenschaft 52, 631–633
- 45. Dragacci, S., Fremy, J.-M., 1993: Occurrence of aflatoxin M_1 in milk. Fifteen years of sanitary control. Sciences des Aliments 13, 711–722 [French]
- El-Nezami, H.S., Nicoletti, G., Neal, G.E., Donohue, D.C., Ahokas, J.T., 1995: Aflatoxin M₁ in human breast milk samples from Victoria, Australia and Thailand. Food and Cosmetics Toxicology 33, 173–179
- 47. Ferguson-Foos, J., Warren, J.D., 1984: Improved cleanup for liquid chromatographic analysis and fluorescence detection of aflatoxins M_1 and M_2 in fluid milk products. Journal of the Association of Official Analytical Chemists 67, 1111–1114
- 48. Wang, J.-S., Shen, X., He, X., Zhu, Y.-R., Zhang, B.-C., Wang, J.-B., Qian, G.-S., Kuang, S.-Y., Zarba, A., Egner, P.A., Jacobson, L.P., Muñoz, A., Helzlsouer, K.J., Groopman, J.D., Kensler, T.W., 1999: Protective alterations in phase 1 and 2 metabolism of aflatoxin B₁ by oltipraz in residents of Qidong, People's Republic of China. Journal of the National Cancer Institute 91, 347–354
- 49. Hsieh, L.-L., Hsu, S.-W., Chen, D.-S., Santella, R.M., 1988: Immunological detection of aflatoxin B,-DNA adducts formed *in vivo*. Cancer Research 48, 6328–6331
- 50. Groopman, J.D., Hall, A.J., Whittle, H., Hudson, G.J., Wogan, G.N., Montesano, R., Wild, C.P., 1992: Molecular dosimetry of aflatoxin-N⁷-guanine in human urine obtained in The Gambia, West Africa. Cancer Epidemiology, Bio-markers & Prevention 1, 221–227
- 51. Nelson, D.B., Kimbrough, R., Landigran, P.S., Hayes, A.W., Yang, G.C., Benanides, J., Morens, D.M., Morse, D., Pollack, M., Powell, K.E., Sullivan-Bolyai, J.Z., 1980: Aflatoxins and Reye's Syndrome: a case control study. Pediatrics 66, 865–869

52. Scholl, P.F., Musser, S.M., Groopman, J.D., 1997: Synthesis and characterization of aflatoxin $\rm B_1$ mercapturic acids and their identification in rat urine. Chemical Research in Toxicology 10,1144-1151

- Madden, U.A., Stahr, H.M., 1995: Retention and distribution of aflatoxin in tissues of chicks fed aflatoxin-contaminated poultry rations amended with soil. Veterinary and Human Toxicology 37, 24–29
- 54. Wilkinson, A.P., Denning, D.W., Morgan, R.A., 1988: Analysis of UK sera for aflatoxin by enzyme-linked immunosorbent assay. Human Toxicology 7, 353–356
- 55. Soini, Y., Chia, S.C., Bennett, W.P., Groopman, J.D., Wang, J.-S., de Benedetti, V.M.G., Cawley, H., Welsh, J.A., Hansen, C., Bergasa, N.V., Jones, E.A., di Bisceglie, A.M., Trivers, G.E., Sandoval, C.A., Calderon, I.E., Munoz Espinosa, L.E., Harris, C.C., 1996: An aflatoxin-associated mutational hotspot at codon 249 in the *p53* tumor suppressor gene occurs in hepatocellular carcinomas from Mexico. Carcinogenesis 17, 1007–1012
- Denning, D.W., Allen, R., Wilkinson, A.P., Morgan, M.R.A., 1990: Transplacental transfer of aflatoxin in humans. Carcinogenesis 11, 1033–1035
- 57. Kensler, T.W., Gange, S.J., Egner, P.A., Dolan, P.M., Muñoz, A., Groopman, J.D., Rogers, A.E., Roebuck, B.D., 1997: Predictive value of molecular dosimetry: individual *versus* group effects of oltipraz on aflatoxin-albumin adducts and risk of liver cancer. Cancer Epidemiology, Biomarkers & Prevention 6, 603–610
- 58. Harrison, J.C., Carvajal, M., Garner, R.C., 1993: Does aflatoxin exposure in the United Kingdom constitute a cancer risk? Environmental Health Perspectives 99, 99–105
- Groopman, J.D., Donahue, P.R., Zhu, J., Chen, J., Wogan, G.N., 1985: Aflatoxin metabolism in humans: detection of metabolites and nucleic acid adducts in urine by affinity chromatography. Proceedings of the National Academy of Science USA 82, 6492–6496
- 60. Neff, G.L., Edds, G.T., 1981: Aflatoxins B₁ and M₁: tissue residues and feed withdrawal profiles in young growing pigs. Food and Cosmetics Toxicology 19, 739–742
- 61. Apeagyei, F., Lamplugh, S.M., Hendrickse, R.G., Affram, K., Lucas, S., 1986: Aflatoxins in the livers of children with kwashiorkor in Ghana. Tropical and Geographical Medicine 38, 273–276
- 62. Rogan, W.J., Yang, G.C., Kimborough, R.D., 1985: Aflatoxin and Reye's Syndrome: a study of livers from deceased cases. Archives of Environmental Health 40, 91–95
- 63. Prelusky, D.B., Veira, D.M., Trenholm, H.L., Hartin, K.E., 1986: Excretion profiles of the mycotoxin deoxynivalenol, following oral and intravenous administration to sheep. Fundamental and Applied Toxicology 6, 356–363
- Pollmann, D.S., Koch, B.A., Seitz, L.M., Mohr, H.E., Kennedy, G.A., 1985: Deoxynivalenolcontaminated wheat in swine diets. Journal of Animal Science 60, 239–247
- 65. Ryan, N.J., Hogan, G.R., Hayes, A.W., Unger, P.D., Siraj, M.V., 1979: Aflatoxin B₁: its role in the etiology of Reye's Syndrome. Pediatrics 64, 71–75
- 66. Lüthy, J., Zweifel, U., Schlatter, C.H., 1980: Metabolism and tissue distribution of [14 C]aflatoxin B $_1$ in pigs. Food and Cosmetics Toxicology 18, 253–256
- 67. Coulter, J.B.S., Hendrickse, R.G., Lamplugh, S.M., MacFarlane, S.B.J., Moody, J.B., Omer, M.I.A., Suliman, G.I., Williams, T.E., 1986: Aflatoxins and kwashiorkor: clinical studies in Sudanese children. Transactions of the Royal Society of Tropical Medicine and Hygiene 80, 945–951
- 68. Denning, D.W., Onwubalili, J.K., Wilkinson, A.P., Morgan, M.R.A., 1988: Measurement of aflatoxin in Nigerian sera by enzyme-linked immunosorbent assay. Transactions of the Royal Society of Tropical Medicine and Hygiene 82, 169–171
- 69. Onyemelukwe, G.C., Ogbadu, G., 1981: Aflatoxin levels in sera of healthy first time rural blood donors: preliminary report. Transactions of the Royal Society of Tropical Medicine and Hygiene 75, 780–782
- Côté, L.-M., Beasley, V.R., Bratich, P.M., Swanson, S.P., Shivaprasad, H.L., Buck, W.B., 1985: Sex-related reduced weight gains in growing swine fed diets containing deoxynivalenol. Journal of Animal Science 61, 942–950

71. Helferich, W.G., Garrett, W.N., Hsieh, D.P.H., Baldwin, R.L., 1986: Feedlot performance and tissue residues of cattle consuming diets containing aflatoxins. Journal of Animal Science 62, 691–696

- 72. Cook, W.O., Richard, J.L., Osweiler, G.D., Trampel, D.W., 1986: Clinical and pathologic changes in acute bovine aflatoxicosis: rumen motility and tissue and fluid concentrations of aflatoxins B, and M, American Journal of Veterinary Research 47, 1817–1825
- Bortell, R., Asquith, R.L., Edds, G.T., Simpson, C.F., Aller, W.W., 1983: Acute experimentally induced aflatoxicosis in the weanling pony. American Journal of Veterinary Research 44, 2110–2114
- 74. Garner, C.R., 1975: Reduction in binding of [14C] aflatoxin B₁ to rat liver macromolecules by phenobarbitone pretreatment. Biochemical Pharmacology 24, 1553–1556
- 75. Gregory, J.F., III, Manley, D., 1981: High performance liquid chromatographic determination of aflatoxins in animal tissues and products. Journal of the Association of Official Analytical Chemists. 64, 144–151
- Ray, A.C., Abitt, B., Cotter, S.R., Murphy, M.J., Reagor, J.C., Robinson, R.M., West, J.E., Whitford, H.W., 1986: Bovine abortion and death associated with consumption of aflatoxin-contaminated peanuts. Journal of American Veterinary Medical Association 188, 1187–1188
- Harvey, R.B., Phillips, T.D., Ellis, J.A., Kubena, L.F., Huff, W.E., Petersen, H.D., 1991: Effects
 on aflatoxin M₁ residues in milk by addition of hydrated sodium calcium aluminosilicate
 to aflatoxin-contaminated diets of dairy cows. American Journal of Veterinary Research 52,
 1556–1559
- Lewis, R.E., Wiederhold, N.P., Chi, J., Han, X.Y., Komanduri, K.V., Kontoyiannis, D.P., Prince, R.A., 2005: Detection of gliotoxin in experimental and human aspergillosis. Infection and Immunity 73, 635–637
- Prelusky, D.B., Scott, P.M., Trenholm, H.L., Lawrence, G.A., 1990: Minimal transmission of zearalenone to milk of dairy cows. Journal of Environmental Science and Health B 25, 87–103
- Cheng, Z., Root, M., Pan, W., Chen, J., Campbell, T.C., 1997: Use of an improved method for analysis of urinary aflatoxin M₁ in a survey of mainland China and Taiwan. Cancer Epidemiology, Biomarkers & Prevention 6, 523–529
- 81. Sawhney, D.S., Vadehra, D.V., Baker, R.C., 1972: The metabolism of ¹⁴C aflatoxins in laying hens. Poultry Science 52, 1302–1309
- 82. Richard, J.L., Dvorak, T.J., Ross, P.F., 1996: Natural occurrence of gliotoxin in turkeys infected with *Aspergillus fumigatus*, Fresenius. Mycopathologia 134, 167–170
- 83. Applebaum, R.S., Brackett, R.E., Wiseman, D.W., Marth, E.H., 1982: Responses of dairy cows to dietary aflatoxin: feed intake and yield, toxin content, and quality of milk of cows treated with pure and impure aflatoxin. Journal of Dairy Science 65, 1503–1508
- 84. James, L.J., Smith, T.K., 1982: Effect of dietary alfalfa on zearalenone toxicity and metabolism in rats and swine. Journal of Animal Science 55, 110–118
- 85. Munksgaard, L., Larsen, J., Werner, H., Andersen, P.E., Viuf, B.T., 1987: Carry over of aflatoxin from cows' feed to milk and milk products. Milchwissenschaft 42, 165–167
- 86. Fremy, J.M., Gautier, J.P., Herry, M.P., Terrier, C., Calet, C., 1987: Effects of ammoniation on the 'carry-over' of aflatoxins into bovine milk. Food Additives and Contaminants 5, 39–44
- 87. Fodor, J., Meyer, K., Riedlberger, M., Bauer, J., Horn, P., Kovács, F., Kovács, M., 2006: Distribution and elimination of fumonisin analogues in weaned piglets after oral administration of *Fusarium verticillioides* fungal culture. Food Additives and Contaminants 23, 492–501
- 88. Jemmali, M., Murthy, T.R.K., 1976: A chemical assay method for the determination of aflatoxin residues in animal tissues. Zeitschrift für Lebensmittel-Untersuchung und -Forschung 161, 13–17
- 89. Kiermeier, F., 1973: Aflatoxin M secretion in cow's milk depending on the quantity of aflatoxin B, ingested. Milchwissenschaften 28, 683–685 [German]
- 90. Mintzlaff, H.-J., Lötzsch, R., Tauchmann, F., Meyer, W., Leistner, L., 1974: Aflatoxin-Rückstände in der Leber und in der Muskulatur von Masthähnchen nach Verabreichung von aflatoxinhaltigen Futtermitteln. Fleischwirtschaft 54, 774–778 [German]

91. de Vries, H.R., Maxwell, S.M., Hendrickse, R.G., 1990: Aflatoxin excretion in children with kwashiorkor or marasmic kwashiorkor – a clinical investigation. Mycopathologia 110, 1–9

- 92. Trucksess, M.W., Richard, J.L., Stoloff, L., Mc Donald, J.S., Brumley, W.C., 1983: Absorption and distribution patterns of aflatoxicol and aflatoxins B₁ and M₁ in blood and milk of cows given aflatoxin B₂. American Journal of Veterinary Research 44, 1753–1756
- 93. Stubblefield, R.D., Pier, A.C., Richard, J.L., Shotwell, O.L., 1983: Fate of aflatoxins in tissues, fluids, and excrements from cows dosed orally with aflatoxin B₁. American Journal of Veterinary Research 44, 1750–1752
- 94. Hussain, M., Gabal, M.A., Wilson, T, Summerfelt, R.C., 1993: Effect of aflatoxin-contaminated feed on morbidity and residues in walleye fish. Veterinary and Human Toxicology 35, 396–398
- 95. de Vries, H.R., Lamplugh, S.M., Hendrickse, R.G., 1987: Aflatoxins and kwashiorkor in Kenya: a hospital based study in a rural area of Kenya. Annals of Tropical Paediatrics 7, 249–251
- 96. Corbett, W.T., Brownie, C.F., Hagler, S.B., Hagler, W.M., 1988: An epidemiological investigation associating aflatoxin $\rm M_1$ with milk production in dairy cattle. Veterinary and Human Toxicology 30, 5–8
- 97. Micco, C., Ambruzzi, M.A., Miraglia, M., Brera, C., Onori, R., Benelli, L., 1991: Contamination of human milk with ochratoxin A. In: Mycotoxins, Endemic Nephropathy and Urinary Tract Tumours. Eds. Castegnaro, M., Pleština, R., Dirheimer, G., Chernozemsky, I.N., Bartsch, H. Lyon, International Agency for Research on Cancer (IARC), pp. 105–108
- 98. Shank, R., Johnsen, D.O., Tanticharoenyos, P., Wooding, W.L., Bourgeois, C.H., 1971: Acute toxicity of aflatoxin B₁ in the Macaque monkey. Toxicology and Applied Pharmacology 20, 227–231
- 99. Keskin, Y., Başkaya, R., Karsli, S., Yurdun, T., Özyaral, O., 2009: Detection of aflatoxin M_1 in human breast milk and raw cow's milk in Istanbul, Turkey. Journal of Food Protection 72, 885–889
- 100. Groopman, J.D., Trudel, L.J., Donahue, P.R., Marshak-Rothstein, A., Wogan, G.N., 1984: High-affinity monoclonal antibodies for aflatoxins and their application to solid-phase immunoassays. Proceedings of the National Academy of Science USA 81, 7728–7731
- 101. Krogh, P., Hald, B., Hasselager, E., Madsen, A., Mortensen, H.P., Larsen, A.E., Campbell, A.D., 1973: Aflatoxin residues in bacon pigs. Pure & Applied Chemistry 35, 275–281
- 102. Krogh, P., Elling, F., Hald, B., Larsen, A.E., Lillehoj, E.B., Madsen, A., Mortensen, H.P., 1976: Time-dependent disappearance of ochratoxin A residues in tissues of bacon pigs. Toxicology 6, 235–242
- 103. Groopman, J.D., Haugen, A., Goodrich, G.R., Wogan, G.N., Harris, C.C., 1982: Quantitation of aflatoxin B₁-modified DNA using monoclonal antibodies. Cancer Research 42, 3120–3124
- 104. Hatch, M.C., Chen, C.-J., Levin, B., Ji, B.-T., Yang, G.-Y., Hsu, S.-W., Wang, L.-W., Hsieh, L.-L., Santella, R.M., 1993: Urinary aflatoxin levels, hepatitis-B virus infection and hepatocellular carcinoma in Taiwan. International Journal of Cancer 54, 931–934
- 105. Gregory, J.F., III, Goldstein, S.L., Edds, G.T., 1983: Metabolite distribution and rate of residue clearance in turkeys fed a diet containing aflatoxin B₁. Food and Chemical Toxicology 21, 463–467
- 106. Mirocha, C.J., Robison, T.S., Pawlosky, R.J., Allen, N.K., 1982: Distribution and residue determination of [3H]zearalenone in broilers. Toxicology and Applied Pharmacology 66, 77–87
- 107. Price, R.L., Lough, O.G., Brown, W.H., 1982: Ammoniation of whole cottonseed at atmospheric pressure and ambient temperature to reduce aflatoxin $\rm M_1$ in milk. Journal of Food Protection 45, 341–344
- 108. Prelusky, D.B., Miller, J.D., Trenholm, H.L., 1996: Disposition of 14 C-derived residues in tissues of pigs fed radiolabelled fumonisin B,. Food Additives and Contaminants 13, 155–162
- 109. Meyer, K., Mohr, K., Bauer, J., Horn, P., Kovács, M., 2003: Residue formation of fumonisin B₁ in porcine tissues. Food Additives and Contaminants 20, 639–647

Wolzak, A., Pearson, A.M., Coleman, T.H., Pestka, J.J., Gray, J.I., Chen, C., 1986: Aflatoxin carryover and clearance from tissues of laying hens. Food and Chemical Toxicology 24, 37–41

- 111. Norred, W.P., Morrissey, R.E., Riley, R.T., Cole, R.J., Dorner, J.W., 1985: Distribution, excretion and skeletal muscle effects of the mycotoxin [14C]cyclopiazonic acid in rats. Food and Chemical Toxicology 23, 1069–1076
- 112. Wolzak, A., Pearson, A.M., Coleman, T.H., Pestka, J.J., Gray, J.I., 1985: Aflatoxin deposition and clearance in the eggs of laying hens. Food and Chemical Toxicology 23, 1057–1061
- 113. Hayes, A.W., King, R.E., Unger, P.D., Phillips, T.D., Hatkin, J., Bowen, J.H., 1978: Aflatoxicosis in swine. Journal of the American Veterinary Medical Association 172, 1295–1297
- 114. Shephard, G.S., Thiel, P.G., Sydenham, E.W., 1992: Initial studies on the toxicokinetics of fumonisin B, in rats. Food and Chemical Toxicology 30, 277–279
- 115. Bailey, G.S., Williams, D.E., Wilcox, J.S., Loveland, P.M., Coulombe, R.A., Hendricks, J.D., 1988: Aflatoxin B₁ carcinogenesis and its relation to DNA adduct formation and adduct persistence in sensitive and resistant salmoid fish. Carcinogenesis 9, 1919–1926
- 116. Garner, R.C., Martin, C.N., Lindsay Smith, J.R., Coles, B.F., Tolson, M.R., 1979: Comparison of aflatoxin B₁ and aflatoxin G₁ binding to cellular macromolecules in vitro, in vivo and after peracid oxidation; characterisation of the major nucleic acid adducts. Chemico-Biological Interactions 26, 57–73
- 117. Hendrickse, R.G., Maxwell, S.M., Young, R., 1989: Aflatoxins and heroin. British Medical Journal 299, 492–493
- 118. Preston, R.S., Hayes, J.R., Campbell, T.C., 1976: The effect of protein deficiency on the *in vivo* binding of aflatoxin B, to rat liver macromolecules. Life Sciences 19, 1191–1198
- Olsen, M., Mirocha, C.J., Abbas, H.K., Johansson, B., 1986: Metabolism of high concentrations of dietary zearalenone by young male turkey poults. Poultry Science 65, 1905–1910
- 120. Monroe, D.H., Holeski, C.J., Eaton, D.L., 1986: Effects of single-dose and repeated-dose pretreatment with 2(3)-tert-butyl-4-hydroxyanisole (BHA) on the hepatobiliary disposition and covalent binding to DNA of aflatoxin B₁ in the rat. Food and Chemical Toxicology 24, 1273–1281
- 121. Yang, G., Nesheim, S., Benavides, J., Ueno, I., Campbell, A.D., Pohland, A., 1980: Radioimmunoassay detection of aflatoxin B₁ in monkey and human urine. Zentralblatt für Bakteriologie, Mikrobiologie und Hygiene Abt. 1 Originale A 246 (Suppl. 8), 329–335
- 122. Richir, C., Paccalin, J., Faugeres, R., Moreux, M., Audry, S., N'Diaye, P., 1980: Searching for mycotoxins in human body fluids and viscera. Zentralblatt für Bakteriologie, Mikrobiologie und Hygiene Abt. 1 Originale A 246 (Suppl. 8), 337–342
- 123. Hagler, W.M., Dankó, G., Horváth, L., Palyusik, M., Mirocha, C.J., 1980: Transmission of zearalenone and its metabolite into ruminant milk. Acta Veterinaria Academiae Scientiarum Hungaricae 28, 209–216
- 124. Li, Y.K., Chu, F.S., 1982: Kinetics of transmission of aflatoxin B₁ into aflatoxin M₁ in lactating mouse: an ELISA analysis. Experientia 38, 842–843
- 125. Zepnik, H., Völkel, W., Dekant, W., 2003: Metabolism and toxicokinetics of the mycotoxin ochratoxin A in F344 rats. Mycotoxin Research 19, 102–107
- 126. Bauer, J., Gareis, M., Bott, A., Gedek, B., 1989: Isolation of a mycotoxin (gliotoxin) from a bovine udder infected with Aspergillus fumigatus. Journal of Medical and Veterinary Mycology 27, 45–50
- 127. Shephard, G.S., Snijman, P.W., 1999: Elimination and excretion of a single dose of the mycotoxin fumonisin B, in a non-human primate. Food and Chemical Toxicology 37, 111–116
- 128. Biehl, M.L., Prelusky, D.B., Koritz, G.D., Hartin, K.E., Buck, W., Trenholm, H.L., 1993: Biliary excretion and enterohepatic cycling of zearalenone in immature pigs. Toxicology and Applied Pharmacology 121, 152–159
- 129. Vudathala, D.K., Prelusky, D.B., Ayroud, M., Trenholm, H.L., Miller, J.D., 1994: Pharmacokinetic fate and pathological effects of ¹⁴C-fumonisin B₁ in laying hens. Natural Toxins 2, 81–88
- 130. Shephard, G.S., Thiel, P.G., Sydenham, E.W., Savard, M.E., 1995: Fate of single dose of ¹⁴C-labelled fumonisin B, in vervet monkeys. Natural Toxins 3,145–150

 Holzapfel, C.W., Steyn, P.S., Purchase, I.F.H., 1966: Isolation and structure of aflatoxins M₁ and M₂. Tetrahedron Letters 25, 2799–2803

- 132. Chou, M.-W., Tung, T.-C., 1969: Aflatoxin B_1 in the excretion of aflatoxin poisoned rats. Journal of the Formosan Medical Association 68, 389–391
- 133. Swenson, D.H., Lin, J.-K., Miller, E.C., Miller, J.A., 1977: Aflatoxin B_1 –2,3-oxide as a probable intermediate in the covalent binding of aflatoxins B_1 and B_2 to rat liver DNA and ribosomal RNA *in vivo*. Cancer Research 37, 172–181
- 134. Coulter, J.B.S., Lamplugh, S.M., Suliman, G.I., Omer, I.A., Hendrickse, R.G., 1984: Aflatoxins in human breast milk. Annals of Tropical Paediatrics 4, 61–66
- 135. Prelusky, D.B., Hamilton, R.M.G., Trenholm, H.L., Miller, J.D., 1986: Tissue distribution and excretion of radioactivity following administration of 14C-labelled deoxynivalenol to White Leghorn hens. Fundamental and Applied Toxicology 7, 635–645
- 136. Jacobson, W.C., Harmeyer, W.C., Jackson, J.E., Armbrecht, B., Wiseman, H.G., 1978: Transmission of aflatoxin B₁ into the tissues of growing pigs. Bulletin of Environmental Contamination & Toxicology 19, 156–161
- 137. Polan, C.E., Hayes, J.R., Campbell, T.C., 1974: Consumption and fate of aflatoxin B₁ by lactating cows. Journal of Agricultural and Food Chemistry 22, 635–638
- 138. Furtado, R.M., Pearson, A.M., Hogberg, M.G., Miller, E.R., 1979: Aflatoxin residues in the tissues of pigs fed a contaminated diet. Journal of Agricultural and Food Chemistry 27, 1351–1354
- 139. Jacobson, W.C., Wiseman, H.G., 1974: The transmission of aflatoxin $\rm B_1$ into eggs. Poultry Science 53, 1743–1745
- 140. Gong, Y.Y., Cardwell, K, Hounsa, A., Egal, S., Turner, P.C., Hall, A.J., Wild, C.P., 2002: Dietary aflatoxin exposure and impaired growth in young children from Benin and Togo: cross sectional study. British Medical Journal 325, 20–21
- 141. Angsubhakorn, S., Poomvises, P., Romruen, K., Newberne, P.M., 1981: Aflatoxicosis in horses. Journal of American Veterinary Association 178, 274–278
- 142. Egner, P.A., Yu, X., Johnson, J.K., Nathasingh, C.K., Groopman, J.D., Kensler, T.W., Roebuck, B.D., 2003: Identification of aflatoxin M₁-N⁻-guanine in liver and urine of tree shrews and rats following administration of aflatoxin B₁. Chemical Research in Toxicology 16, 1174–1180
- 143. Suzuki, S., Satoh, T., Yamazaki, M., 1977: The pharmacokinetics of ochratoxin A in rats. Japanese Journal of Pharmacology 27, 735–744
- 144. Li, S., Marquardt, R.R., Frohlich, A.A., 2000: Identification of ochratoxins and some of their metabolites in bile and urine of rats. Food and Chemical Toxicology 38, 141–152
- 145. Visconti, A., Mirocha, C.J., 1985: Identification of various T-2 toxin metabolites in chicken excreta and tissues. Applied and Environmental Microbiology 49, 1246–1250
- 146. Richard, J.L., Pier, A.C., Stubblefield, R.D., Shotwell, O.L., Lyon, R.L., Cutlip, R.C., 1983: Effect of feeding corn naturally contaminated with aflatoxin on feed efficiency, on physiologic, immunologic, and pathologic changes, and on tissue residues in steers. American Journal of Veterinary Research 44, 1294–1299
- 147. Applebaum, R.S., Marth, E.H., 1980: Responses of a dairy cow to dietary aflatoxin: preliminary report. Journal of Dairy Science 63 Suppl. 1, 58
- Palyusik, M., Harrach, B., Mirocha, C.J., Pathre, S.V., 1980: Transmission of zearalenone and zearalenol into porcine milk. Acta Veterinaria Academiae Scientiarum Hungaricae 28, 217–222
- 149. Gareis, M., Wernery, U., 1984: Determination of gliotoxin in samples associated with cases of intoxication in camels. Mycotoxin Research 10, 2–8
- McKinney, J.D., Cavanagh, G.C., Bell, J.T., Hoversland, A.S., Nelson, D.M., Pearson, J., Selkirk,
 R.J., 1973: Effects of ammoniation on aflatoxins in rations fed lactating cows. Journal of the American Oil Chemists' Society 50, 79–84
- 151. Stubblefield, R.D., Shotwell, O.L., Richard, J.L., Pier, A.C., 1981: Transmission and distribution of aflatoxin in contaminated beef liver and other tissues. Journal of the American Oil Chemists' Society 58, 1015A–1017A
- 152. Nyathi, C.B., Mutiro, C.F., Hasler, J.A., Chetsanga, C.J., 1987: A survey of urinary aflatoxin in Zimbabwe. International Journal of Epidemiology 16, 516-519

153. Garner, R.C., Dvorackova, I., Tursi, F., 1988: Immunoassay procedures to detect exposure to aflatoxin $\rm B_1$ and benzo(a)pyrene in animals and man at the DNA level. International Archives of Occupational and Environmental Health 60, 145–150

- 154. Irvin, T.R., Wogan, G.N., 1984: Quantitation of aflatoxin B₁ adduction within the ribosomal RNA gene sequence of rat liver DNA. Proceedings of the National Academy of Science USA 81, 664–668
- 155. Haugen, A., Groopman, J.D., Hsu, I.-C., Goodrich, G.R., Wogan, G.N., Harris, C.C., 1981: Monoclonal antibody to aflatoxin B₁-modified DNA detected by enzyme immunoassay. Proceedings of the National Academy of Science USA 78, 4124–4127
- 156. Hsieh, L.-L., Hsieh, T.-T., 1993: Detection of aflatoxin B₁-DNA adducts in human placenta and cord blood. Cancer Research 53, 1278–1280
- 157. Frobish, R.A., Bradley, B.D., Wagner, D.D., Long-Bradley, P.E., Hairston, H, 1986: Aflatoxin residues in milk of dairy cows after ingestion of naturally contaminated grain. Journal of Food Protection 49, 781–785
- 158. Fukal, L., Březina, P., 1991: Determination of the aflatoxin M₁-level in milk for the production of milk baby foods using immunoassay. Nahrung 35, 745–748 [German]
- Fukal, L., Březina, P., Marek, M., 1990: Immunochemical monitoring of aflatoxin M₁ occurrence in milk produced in Czechoslovakia. Deutsche Lebensmittel-Rundschau 86, 289–291
- 160. Gajek, O., 1982: Aflatoxins in protein food for animals and milk. Roczniki Panstwowego Zaklado Higieny XXXIII, 415–420 [Polish]
- 161. Gallo, P., Salzillo, A., Rossini, C., Urbani, V., Serpe, L., 2006: Aflatoxin $\rm M_1$ determination in milk: method validation and contamination levels in samples from southern Italy. Italian Journal of Food Science 18, 251–259
- 162. Gelosa, L., 1986: La presenza di aflatossina M₁ nel latte al consumo. Latte XI, 261–264 [Italian]
- 163. Gilbert, J., Shepherd, M.J., Wallwork, M.A., Knowles, M.E., 1984: A survey of the occurrence of aflatoxin $\rm M_1$ in UK-produced milk for the period 1981–1983. Food Additives and Contaminants 1, 23–28
- 164. Ioannou-Kakouri, E., Aletari, M., Christou, E., Hadjioannou, A., Koliou, A., Akkelidou, D., 1999: Surveillance and control of aflatoxins B₁, B₂, G₁, G₂, and M₁ in foodstuffs in the Republic of Cyprus: 1992–1996. Journal of the Association of Official Analytical Chemists International 82, 883–892
- 165. Jalón, M., Urieta, I, de Pablo, B., Macho, M.L., 1994: Contaminacion por aflatoxina M_1 de leche y productos lacteos en la comunidad autónoma Vasca. Alimentaria 3, 25–29 [Spanish]
- 166 Karaioannoglou, P., Mantis, A., Koufidis, D., Koidis, P., Triantafillou, J., 1989: Occurrence of aflatoxin $\rm M_1$ in raw and pasteurized milk and in Feta and Telme cheese samples. Milchwissenschaft 44, 746–748
- 167. Li, Y., Su, J.-j., Qin, L.-l., Egner, P.E., Wang, J.-S., Groopman, J.D., Kensler, T.W., Roebuck, B.D., 2000: Reduction of aflatoxin B₁ adduct biomarkers by oltipraz in the tree shrew (*Tupaia belangeri chinensis*). Cancer Letters 154, 79–83
- 168. Nayak, S., Tanuja, P., Sashidhar, R.B., 2009: Synthesis and characterization of mercapturic acid (N-acetyl-L-cysteine)-aflatoxin $\rm B_1$ adduct and its quantitation in rat urine by an enzyme immunoassay. Journal of the Association of Official Analytical Chemists International 92, 487–495
- 169. Masri, M.S., Garcia, V.C., Page, J.R. 1969: The aflatoxin M content of milk from cows fed known amounts of aflatoxin. Veterinary Record 84, 146–147
- Pietri, A., Bertuzzi, T., Moschini, M., Piva, G., 2003: Aflatoxin M₁ occurrence in milk samples destined for Parmigiano Reggiano cheese production. Italian Journal of Food Science 15, 301–306
- 171. Allcroft, R., Roberts, B.A., 1968: Toxic groundnut meal: the relationship between aflatoxin B₁ intake by cows and excretion of aflatoxin M₁ in milk. Veterinary Record 82, 116–118
- 172. Galtier, P., Alvinerie, M., Charpenteau, J.L., 1981: The pharmacokinetic profiles of ochratoxin A in pigs, rabbits and chickens. Food and Cosmetics Toxicology 19, 735–738

173. Croy, R.G., Essigmann, J.M., Reinhold, V.N., Wogan, G.N., 1978: Identification of the principal aflatoxin B₁-DNA adduct formed *in vivo* in rat liver. Proceedings of the National Academy of Science USA 75, 1745–1749

- 174. Kumagai, S., Aibara, K., 1982: Intestinal absorption and secretion of ochratoxin A in the rat. Toxicology and Applied Pharmacology 64, 94–102
- 175. Li, S., Marquardt, R.R., Frohlich, A.A., Vitti, T.G., Crow, G., 1997: Pharmacokinetics of ochratoxin A and its metabolites in rats. Toxicology and Applied Pharmacology 145, 82–90
- 176. Walton, M., Egner, P, Scholl, P.F., Walker, J., Kensler, T.W., Groopman, J.D., 2001: Liquid chromatography electrospray-mass spectrometry of urinary aflatoxin biomarkers: characterization and application to dosimetry and chemoprevention in rats. Chemical Research in Toxicology 14, 919–926
- 177. Whitham, M., Nixon, J.E., Sinnhuber, R.O., 1982: Liver DNA bound *in vivo* with aflatoxin B₁ as a measure of hepatocarcinoma initiation in rainbow trout. Journal of the National Cancer Institue 68, 623–628
- 178. Ghidini, S., Zanardi, E., Battaglia, A., Varisco, G., Ferretti, E., Campanini, G., Chizzolini, R., 2005: Comparison of contaminant and residue levels in organic and conventional milk and meat products from nothern Italy. Food Additives and Contaminants 22, 9–14
- 179. Sreemannarayana, O., Frohlich, A.A., Vitti, T.G., Marquardt, R.R., Abramson, D., 1988: Studies of the tolerance and disposition of ochratoxin A in young calves. Journal of Animal Science 66, 1703–1711
- 180. Chatterjee, K., Pawlowsky, R.J., Treeful, L., Mirocha, C.J., 1986: Kinetic study of T-2 toxin metabolites in a cow. Journal of Food Safety 8, 25–34
- 181. Ballinger, M.B., Phillips, T.D., Kubena, L.F., 1986: Assessment of the distribution and elimination of ochratoxin A in the pregnant rat. Journal of Food Safety 8, 11–24
- 182. Miller, D.M., Wilson, D.M., Wyatt, R.D., McKinney, J.K., Crowell, W.A., Stuart, B.P., 1982: High performance liquid chromatographic determination and clearance time of aflatoxin residues in swine tissues. Journal of the Association of Official Analytical Chemists 65, 1–4
- 183. Fukayama, M.Y., Helferich, W.G., Hsieh, D.P.H., 1984: Effect of butylated hydroxytoluene on the disposition of [14 C]aflatoxin B $_1$ in the lactating rat. Food and Chemical Toxicology 11, 857–860
- 184. Hassen, W., Abid, S., Achour, A., Creppy, E., Bacha, H., 2004: Ochratoxin A and β_2 -microglobulinuria in healthy individuals and in chronic interstitial nephropathy patients in the centre of Tunisia: a hot spot of ochratoxin A exposure. Toxicology 199, 185–193
- 185. Maaroufi, K., Acour, A., Hammami, M., El May, M., Betbeder, A.M., Ellouz, F., Creppy, E.E., Bacha, H., 1995: Ochratoxin A in human blood in relation to nephropathy in Tunisia. Human & Experimental Toxicology 14, 609–615
- 186. Dvořáčková, I., Pichová, V., 1986: Pulmonary interstitial fibrosis with evidence of aflatoxin B, in lung tissue. Journal of Toxicology and Environmental Health 18, 153–157
- 187. Peraica, M., Domijan, A.-M., Fuchs, R., Lucić, A., Radić, B., 1999: The occurrence of ochratoxin A in blood in general population of Croatia. Toxicology Letters 110, 105–112
- 188. Radić, B., Fuchs, R., Peraica, M., Lucić, A., 1997: Ochratoxin A in human sera in the area with endemic nephropathy in Croatia. Toxicology Letters 91, 105–109
- 189. Peraica, M., Domijan, A.-M., Matašin, M., Lucić, A., Radić, B., Delaš, F., Horvat, M., Bosanac, I., Balija, M., Grgičević, D., 2001: Variations of ochratoxin A concentration in the blood of healthy populations in some Croatian cities. Archives of Toxicology 75, 410–414
- 190. Wild, C.P., Umbenhauer, D., Chapot, B., Montesano, R., 1986: Monitoring of individual human exposure to aflatoxins (AF) and N-nitrosamines (NNO) by immunoassays. Journal of Cellular Biochemistry 30, 171–179
- 191. Fuchs, R., Radić, B., Peraica, M., Hult, K., Pleština, R., 1988: Enterohepatic circulation of ochratoxin A in rats. Periodicum Biologorum 90, 39–42
- 192. Kovács, F., Sándor, G., Ványi, A., Domány, S., Zomborszky-Kovács, M., 1995: Detection of ochratoxin A in human blood and colostrum. Acta Veterinaria Hungarica 43, 393–400
- 193. Hagelberg, S., Hult, K., Fuchs, R., 1989: Toxicokinetics of ochratoxin A in several species and its plasma-binding properties. Journal of Applied Toxicology 9, 91–96

194. Watson, F.A., Mirocha, C.J., Hayes, A.W., 1984: Analysis for trichothecenes in samples from southeast Asia associated with "Yellow Rain". Fundamental and Applied Toxicology 4,700–717

- 195. Sodeinde, O., Chan, M.C.K., Maxwell, S.M., Familusi, J.B., Hendrickse, R.G., 1995: Neonatal jaundice, aflatoxins and naphthols: report of a study in Ibadan, Nigeria. Annals of Tropical Paediatrics 15, 107–113
- 196. Breitholtz-Emanuelsson, A., Minervini, F., Hult, K., Visconti, A., 1994: Ochratoxin A in human serum samples collected in southern Italy from healthy individuals and individuals suffering from different kidney disorders. Natural Toxins 2, 366–370
- 197. Studer-Rohr, I., Schlatter, J., Dietrich, D.R., 2000: Kinetic parameters and intraindividual fluctuations of ochratoxin A plasma levels in humans. Archives of Toxicology 74, 499–510
- 198. Fuchs, R., Hult, K., Peraica, M., Radič, B., Pleština, R., 1984: Conversion of ochratoxin C into ochratoxin A *in vivo*. Applied and Environmental Microbiology 48, 41–42
- 199. Kiessling, K.-H., Pettersson, H., Sandholm, K., Olsen, M., 1984: Metabolism of aflatoxin, ochratoxin, zearalenone, and three trichothecenes by intact rumen fluid, rumen protozoa, and rumen bacteria. Applied and Environmental Microbiology 47, 1070–1073
- 200. Xiao, H, Marquardt, R.R., Frohlich, A.A., Phillips, G.D., Vitti, T.G., 1991: Effect of hay and a grain diet on the rate of hydrolysis of ochratoxin A in the rumen of sheep. Journal of Animal Science 69, 3706–3714
- 201. Micco, C., Brera, C., Miraglia, M., Onori, R., 1987: HPLC determination of the total content of aflatoxins in naturally contaminated eggs in free and conjugate forms. Food Additives and Contaminants 4, 407–414
- 202. Grosso, F., Saïd, S., Mabrouk, I., Fremy, J.M., Castegnaro, M., Jemmali, M., Dragacci, S., 2003: New data on the occurrence of ochratoxin A in human sera from patients affected or not by renal diseases in Tunisia. Food and Chemical Toxicology 41, 1133–1140
- Szuets, P., Mesterhazy, A., Falkay, G.Y., Bartok, T., 1997: Early telarche symptoms in children
 and their relations to zearalenon contamination in foodstuffs. Cereal Research
 Communications 25, 429–436
- Mortensen, H.P., Hald, B., Madsen, A., 1983: Feeding experiments with ochratoxin A contaminated barley for bacon pigs.
 Ochratoxin A in pig blood. Acta Agriculturæ Scandinavica
 33, 235–239
- 205. Maxwell, S.M., Familusi, J.B., Sodeinde, O., Chan, M.C.K., Hendrickse, R.G., 1994: Detection of naphthols and aflatoxins in Nigerian cord blood. Annals of Tropical Paediatrics 14, 3–5
- 206 Plestina, R., Ceović, S., Gatenbeck, S., Habazin-Novak, V., Hult, K., Hökby, E., Krogh, P., Radić, B., 1990: Human exposure to ochratoxin A in areas of Yugoslavia with endemic nephropathy. Journal of Environmental Pathology, Toxicology, Oncology 10, 145–148
- 207. Solti, L., Salamon, F., Barna-Vetró, I., Gyöngyösi, Á., Szabó, E., Wölfling, A., 1997: Ochratoxin A content of human sera determined by a sensitive ELISA. Journal of Analytical Toxicology 21, 44–48
- 208. Palli, D., Miraglia, M., Saieva, C., Masala, G., Cava, E., Colatosti, M., Corsi, A.M., Russo, A., Brera, C., 1999: Serum levels of ochratoxin A in healthy adults in Tuscany: correlation with individual characteristics and between repeat measurements. Cancer Epidemiology, Biomarkers & Prevention 8, 265–269
- 209. van Walbeek, W., Moodie, C.A., Scott, P.M., Harwig, J., Grice, H.C., 1971: Toxicity and excretion of ochratoxin A in rats intubated with pure ochratoxin A or fed cultures of *Penicillium viridicatum*. Toxicology and Applied Pharmacology 20, 439–441
- 210. Patterson, D.S.P., Shreeve, B.J., Roberts, B.A., Berrett, S., Brush, P.J., Glancy, E.M., Krogh, P., 1981: Effect on calves of barley naturally contaminated with ochratoxin A and groundnut meal contaminated with low concentrations of aflatoxin B₁. Research in Veterinary Science 31, 213–218
- 211. Veldman, A., Meijs, J.A.C., Borggreve, G.J., Heeres-van der Tol, J.J., 1992: Carry-over of aflatoxin from cows' food to milk. Animal Production 55, 163–168

212. Goeger, D.E., Shelton, D.W., Hendricks, J.D., Bailey, G.S., 1986: Mechanisms of anti-carcinogenesis by indole-3-carbinol: effect on the distribution and metabolism of aflatoxin B₁ in rainbow trout. Carcinogenesis 7, 2025–2031

- 213. Shelton, D.W., Goeger, D.E., Hendricks, J.D., Bailey, G.S., 1986: Mechanisms of anti-carcinogenesis: the distribution and metabolism of aflatoxin B₁ in rainbow trout fed Arocolor 1254. Carcinogenesis 7, 1065–1071
- 214. Wild, C.P., Montesano, R., van Bethem, J., Scherer, E., Den Engelse, L., 1990: Intercellular variation in levels of adducts of aflatoxin B_1 and G_1 in DNA from rat tissue: a quantitative immunocytochemical study. Journal of Cancer Research and Clinical Oncology 116, 134–140
- 215. Eko-Ebongue, S., Antalick, J.-P., Bonini, M., Betbeder, A.-M., Faugère, J.-G., Maaroufi, K., Bacha, H., Achour, M., Grosse, Y., Pfohl-Leszkowicz, A., Creppy, E.E., 1994: Détermination des teneurs en ochratoxine A, vitamine E et vitamine A dans des sérums humains de France et de Tunisie: recherche dúne corrélation. Annales des Falsifications et de l'Éxpertise Chimique et Toxicologique 929, 213–224
- 216. Bagni, A., Castagnetti, G.B., Chiavari, C., Ferri, G., Losi, G., Montanari, G., 1993: A study about aflatoxin M₁ and M₂ in dairy cow milk samples collected in the province of Reggio Emilia. L'Industria del Latte XXIX, 55–66 [Italian]
- 217. El-Nezami, H., Mykkänen, H., Kankaanpää, P., Suomalainen, T., Salminen, S., Ahokas, J., 2000: Ability of a mixture of *Lactobacillus* and *Propionibacterium* to influence the faecal aflatoxin content in healthy Egyptian volunteers: a pilot clinical study. Bioscience Microflora 19, 41–45
- 218. Chang, F.C., Chu, F.S., 1977: The fate of ochratoxin A in rats. Food and Cosmetics Toxicology 15, 199–204
- 219. Filali, A., Betbeder, A.M., Baudrimont, I., Benyada, A., Soulaymani, R., Creppy, E.E., 2002: Ochratoxin A in human plasma in Morocco: a preliminary survey. Human & Experimental Toxicology 21, 241–245
- 220. Özçelik, N., Koşar, A., Soysal, D., 2001: Ochratoxin A in human serum samples collected in Isparta-Turkey from healthy individuals and individuals suffering from different urinary disorders. Toxicology Letters 121, 9–13
- 221. Jiménez, A.M., López de Cerain, A., Gónzalez-Peñas, E., Bello, J., Bétbéder, A.M., Créppy, E.E., 1998: Exposure to ochratoxin A in Europe: comparison with a region of northern Spain. Journal of Toxicology Toxin Reviews 17, 479–491
- 222. Ruprich, J., Ostrý, V., 1993: Study of human exposure to ochratoxin A and assessment of possible sources. Central European Journal of Public Health 1, 46–48
- 223. Sun, Z., Lu, P., Gail, M.H., Pee, D., Zhang, Q., Ming, L., Wang, J., Wu, Y., Liu, G., Wu, Y., Zhu, Y., 1999: Increased risk of hepatocellular carcinoma in male hepatitis B surface antigen carriers with chronic hepatitis who have detectable urinary aflatoxin metabolite M₁. Hepatology 30, 379–383
- 224. Oyelami, O.A., Maxwell, S.M., Adelusola, K.A., Aladekoma, T.A., Oyelese, A.O., 1997: Aflatoxins in the lungs of children with kwashiorkor and children with miscellaneous diseases in Nigeria. Journal of Toxicology and Environmental Health 51, 623–628
- 225. Malir, F., Jergeova, Z., Severa, J., Cerna, M., Smid, J., Betbeder, A.M., Baudrimont, I., Creppy, E.E., 1998: The level of ochratoxin A in blood serum of adults in the Czech Republic. Revue de Médicine Vétérinaire 149, 710
- 226. Domijan, A.-M., Peraica, M., Fuchs, R., Lucić, A., Radić, B., Balija, M., Bosanac, I., Grgičević, D., 1999: Ochratoxin A in blood of healthy population in Zagreb. Archives of Industrial Hygiene and Toxicology 3, 263–271
- 227. Wafa, E.W., Yahya, R.S., Sobh, M.A., Eraky, I., El-Baz, M., El-Gayar, H.A.M., Betbeder, A.M., Creppy, E.E., 1998: Human ochratoxicosis and nephropathy in Egypt: a preliminary study. Human & Experimental Toxicology 17, 124–129
- 228. Bailey, G.S., Dashwood, R., Loveland, P.M., Pereira, C., Hendricks, J.D., 1998: Molecular dosimetry in fish: quantitative target organ DNA adduction and hepatocarcinogenicity for four aflatoxins by two exposure routes in rainbow trout. Mutation Research 339, 233–244

229. Croy, R.G., Nixon, J.E., Sinnhuber, R.O., Wogan, G.N., 1980: Investigation of covalent aflatoxin B₁-DNA adducts formed *in vivo* in rainbow trout (*Salmo gairdneri*) embryos and liver. Carcinogenesis 1, 903–909

- 230. Erasmuson, A.F., Scahill, B.C., West, D.M., 1994: Natural zeranol (α-zearalenol) in the urine of pasture-fed animals. Journal of Agricultural and Food Chemistry 42, 2721–2725
- 231 Galvano, F., Pietri, A., Bertuzzi, T., Fusconi, G., Galvano, M., Piva, A., Piva, G., 1996: Reduction of carryover of aflatoxin from cow feed to milk by addition of activated carbons. Journal of Food Protection 59, 551–554
- 232. Micco, C., Miraglia, M., Onori, R., Brera, C., Mantovani, A.L., Ioppolo, A., Stasolla, D., 1988: Long-term administration of low doses of mycotoxins to poultry. 1. Residues of aflatoxin B₁ and its metabolites in broilers and laying hens. Food Additives and Contaminants 5, 303–308
- 233. Galvano, F., Pietri, A., Bertuzzi, T., Gagliardi, L., Ciotti, S., Luisi, S., Bognanno, M., la Fauci, L., Iacopino, A.M., Nigro, F., li Volti, G., Vanella, L., Giammanco, G., Tina, G.L., Gazzolo, D., 2008: Maternal dietary habits and mycotoxin occurrence in human mature milk. Molecular Nutrition & Food Research 52, 496–501
- 234. Tápai, K., Téren, J., Mesterházy, Á., 1997: Ochratoxin A in the sera of blood donors and ill persons. Cereal Research Communications 25, 307–308
- 235. Ueno, Y., Maki, S., Lin, J., Furuya, M., Sugiura, Y., Kawamura, O., 1998: A 4-year study of plasma ochratoxin A in a selected population in Tokyo by immunoassay and immunoaffinity column-linked HPLC. Food and Chemical Toxicology 36, 445–449
- 236. Gilbert, J., Brereton, P., MacDonald, S., 2001: Assessment of dietary exposure to ochratoxin A in the UK using a duplicate diet approach and analysis of urine and plasma samples. Food Additives and Contaminants 18, 1088–1093
- 237. Krishnamachari, K.A., Bhat, R.V., Nagarajan, V., Tilak, T.B., 1975: Investigations into an outbreak of hepatitis in parts of western India. Indian Journal of Medical Research 63, 1036–1049
- 238. López, C.E., Ramos, L.L., Ramadán, S.S., Bulacio, L.C., 2003: Presence of aflatoxin M_1 in milk for human consumption in Argentina. Food Control 14, 31–34
- 239. MAFF UK, 1996: Survey of a flatoxin $\rm M_1$ in farm gate milk. Food-Surveillance-Information Sheet No. 78
- 240. Martins, M.L., Martins, H.M., 2000: Aflatoxin $\rm M_1$ in raw and ultra high temperature-treated milk commercialized in Portugal. Food Additives and Contaminants 17, 871–874
- 241. Maxwell, S.M., Apeagyei, F., de Vries, H.R., Mwanmut, D.D., Hendrickse, R.G., 1989: Aflatoxins in breast milk, neonatal cord blood and sera of pregnant women. Journal of Toxicology Toxin Reviews 8, 19–29
- 242. McKenzie, R.A., Blaney, B.J., Connole, M.D., Fitzpatrick, L.A., 1981: Acute aflatoxicosis in calves fed peanut hay. Australian Veterinary Journal 57, 284–286
- 243. Oruç, H.H., Sonal, S., 2001: Determination of aflatoxin M₁ levels in cheese and milk consumed in Bursa, Turkey. Veterinary and Human Toxicology 43, 292–293
- 244. Polychronaki, N., Turner, P.C., Mykkänen, H., Gong, Y., Amra, H., Abdel-Wahhab, M., El-Nezami, H., 2006: Determinants of aflatoxin $\rm M_1$ in breast milk in a selected group of Egyptian mothers. Food Additives and Contaminants 23, 700–708
- 245. Rachelsperger, M., 1987: Essay about aflatoxin M_1 -content of drinking milk: summer/winter exposition. Ernährung/Nutrition 11, 248–249
- 246. Roussi, V., Govaris, A., Varagouli, A., Botsoglou, N.A., 2002: Occurrence of aflatoxin $\rm M_1$ in raw and market milk commercialized in Greece. Food Additives and Contaminants 19, 863–868
- 247. Saad, A.M., Abdelgadir, A.M., Moss, M.O., 1989: Aflatoxin in human and camel milk in Abu Dabi, United Arab Emirates. Mycotoxin Research 5, 57–60
- 248. Saad, A.M., Abdelgadir, A.M., Moss, M.O., 1995: Exposure of infants to aflatoxin M₁ from mothers' breast milk in Abu Dabi, UAE. Food Additives and Contaminants 12, 255–261
- 249. Sabino, M., Purchio, A., Milanez, T.V., 1996: Survey of aflatoxins B_1 , M_1 and aflatoxicol in poultry and swine tissues from farms located in the states of Rio Grande Do Suland Santa Catarina, Brazil. Revista de Microbiologia 27, 189–191

250. Sabino, M., Purchio, A., Zorzetto, M.A.P., 1989: Variations in the levels of aflatoxin in cows milk consumed in the city of Sāo Paulo, Brazil. Food Additives and Contaminants 6, 321–326

- 251. Saitanu, K., 1997: Incidence of aflatoxin $\rm M_{_1}$ in Thai milk products. Journal of Food Protection 60, 1010–1012
- 252. Salem, D.A., 2002: Natural occurrence of aflatoxins in feedstuffs and milk of dairy farms in Assiut Province, Egypt. Wiener Tierärztliche Monatsschrift 89, 86–91
- 253. Sassahara, M., Pontes Netto, D., Yanaka, E.K., 2005: Aflatoxin occurrence in foodstuff supplied to dairy cattle and aflatoxin M_1 in raw milk in the north of Paraná State. Food and Chemical Toxicology 43, 981–984
- Schuddeboom, L.J., 1983: Development of legislation concerning mycotoxins in dairy products in The Netherlands. Microbiologie – Aliments – Nutrition 1, 179–185
- 255. Srivastava, V.P., Bu-Abbas, A., Alaa-Basuny X, Al-Johar, W., Al-Mufti, S., Siddiqui, M.K.J., 2001: Aflatoxin $\rm M_1$ contamination in commercial samples of milk and dairy products in Kuwait. Food Additives and Contaminants 18, 993–997
- 256. Suzangar, M., Emami, A., Barnett, R., 1976: Aflatoxin contamination of village milk in Isfahan, Iran. Tropical Science 18, 155–159
- 257. Thirumala-Devi, K., Mayo, M.A., Hall, A.J., Craufurd, P.Q., Wheeler, T.R., Waliyar, F., Subrahmanyam, A., Reddy, D.V.R., 2002: Development and application of an indirect competitive enzyme-linked immunoassay for aflatoxin M₁ in milk and milk-based confectionery. Journal of Agricultural and Food Chemistry 50, 933–937
- 258. Porter, J.K., Wray, E.M., Rimando, A.M., Stancel, P.C., Bacon, C.W., Voss, K.A., 1996: Lactational passage of fusaric acid from the feed of nursing dams to the neonate rat and effects on pineal neurochemistry in the F1 and F2 generations at weaning. Journal of Toxicology and Environmental Health 49, 161–175
- 259. Chao, T.-C., Maxwell, S.M., Wong, S.Y., 1991: An outbreak of aflatoxicosis and boric acid poisoning in Malaysia: a clinicopathological study. Journal of Pathology 164, 225–233
- 260. Goeger, D.E., Shelton, D.W., Hendricks, J.D., Pereira, C., Bailey, G.S., 1988: Comparative effect of dietary butylated hydroxyanisole and β-naphthoflavone on aflatoxin B₁ metabolism, DNA adduct formation, and carcinogenesis in rainbow trout. Carcinogenesis 9, 1793–1800
- 261. Creppy, E.E., Betbeder, A.-M., Godin, M., Fillastre, J.-P., AMG, K.S., Simon, P., Lasseur, C., Combe, C., Aparicio, M., 1995: Ochratoxin A in human blood and chronic interstitial nephropathy: case report in France. Proceedings from 17. Mykotoxin-Workshop in der Bundesforschungsanstalt für Landwirtschaft, Braunschweig-Völkenrode 56–62
- 262. Ahmed, H., Hendrickse, R.G., Maxwell, S.M., Yakubu, A.M., 1995: Neonatal jaundice with reference to aflatoxins: an aetiological study in Zaria, northern Nigeria. Annals of Tropical Paediatrics 15, 11–20
- 263. Scheuer, R., Bernard, K., Leistner, L., 1984: Rückstände von Ochratoxin A in Schweinenieren. Mitteilungsblatt der Bundesanstalt für Fleischforschung 83, 5781–5784 [German]
- 264. Hofmann, G., 1983: Vorkommen von Ochratoxin A in Blut und Nieren von Schweinen. Mitteilungsblatt der Bundesanstalt für Fleischforschung, Kulmbach 80, 5547–5551 [German]
- 265. Shepherd, E.C., Phillips, T.D., Rick Irvin, T., Safe, S.H., Robertson, L.W., 1984: Aflatoxin $\rm B_1$ metabolism in the rat: polyhalogenated biphenyl enhanced conversion to aflatoxin $\rm M_1$. Xenobiotica 14, 741–750
- 266. Patterson, D.S.P., Roberts, B.A., Small, B.J., 1976: Metabolism of ochratoxins A and B in the pig during early pregnancy and the accumulation in body tissues of ochratoxin A only. Food and Cosmetics Toxicology 14, 439–442
- 267. Shreeve, B.J., Patterson, D.S.P., Roberts, B.A., 1979: The "carry-over"of aflatoxin, ochratoxin and zearalenone from naturally contaminated feed to tissues, urine and milk of dairy cows. Food and Cosmetics Toxicology 17, 151–152
- 268. Miraglia, M., Brera, C., Cava, E., Calfapietra, F.R., 1998: The evaluation of major sources of ochratoxin A (OA) intake through the analysis of OA in biological fluids in Italy. Revue de Médicine Vétérinaire 149, 711

269. Olubuyide, I.O., Maxwell, S.M., Akinyinka, O.O., Hart, C.A., Neal, G.E., Hendrickse, R.G., 1993: HbsAg and aflatoxins in sera of rural (Igbo-Ora) and urban (Ibadan) populations in Nigeria. African Journal of Medicine and Medical Sciences 22, 77–80

- 270. Visconti, A., Bottalico, A., Solfrizzo, M., 1985: Aflatoxin M_1 in milk, in southern Italy. Mycotoxin Research 1, 71–75
- 271. Wild, C.R., Pionneau, F.A., Montesano, R., Mutiro, C.F., Chetsanga, C.J., 1987: Aflatoxin detected in human breast milk by immunoassay. International Journal of Cancer 40, 328–333
- 272. Yadagiri, B., Tulpule, P.G., 1974: Aflatoxin in buffalo milk. Indian Journal of Dairy Science 27, 293–297
- 273. Zarba, A., Wild, C.P., Hall, A.J., Montesano, R., Hudson, G.J., Groopman, J.D., 1992: Aflatoxin M₁ in human breast milk from The Gambia, West Africa, quantified by combined monoclonal antibody immunoaffinity chromatography and HPLC. Carcinogenesis 13, 891–894
- 274. Hammer, P., Blüthgen, A., Walte, H.G., 1996: Carry-over of fumonisin B₁ into the milk of lactating cows. Milchwissenschaft 51, 691–695
- 275. Maragos, C.M., Richard, J.L., 1994: Quantitation and stability of fumonisins B₁ and B₂ in milk. Journal of the Association of Official Analytical Chemists International 77, 1162–1167
- 276. Rice, L.G., Ross, P.F., 1994: Methods for detection and quantitation of fumonisins in corn, cereal products and animal excreta. Journal of Food Protection 57, 536–540
- 277. Hussain, I., Anwar, J., Munawar, M.A., Asi, M.R., 2008: Variation of levels of aflatoxin $\rm M_1$ in raw milk from different localities in the central areas of Punjab, Pakistan. Food Control 19, 1126–1129
- 278. Côté, L.-M., Dahlem, A.M., Yoshizawa, T., Swanson, S.P., Buck, W.B., 1986: Excretion of deoxynivalenol and its metabolite in milk, urine, and feces of lactating dairy cows. Journal of Dairy Science 69, 2416–2423
- 279. Steimer, J., Blüthgen, A., Heeschen, W., Wetzel, S., Hamann, J., 1990: Studies on the influence of aflatoxin M₁-excretion by polychlorinated biphenyls in lactating cows. Kieler Milchwirtschaftliche Forschungsberichte 42, 543–552 [German]
- 280. Rizzi, L., Simioli, M., Roncada, P., Zaghini, A., 2003: Aflatoxin B₁ and clinoptilolite in feed for laying hens: effects on egg quality, mycotoxin residues in livers, and hepatic mixed-function oxygenase activities. Journal of Food Protection 66, 860–865
- Fukal, L., 1991: Spontaneous occurrence of ochratoxin A residues in Czechoslovak slaughter pigs determined by immunoassay. Deutsche Lebensmittel-Rundschau 87, 316–319
- 282. Smith, E.E., Phillips, T.D., Ellis, J.A., Harvey, R.B., Kubena, L.F., Thompson, J., Newton, G., 1994: Dietary hydrated sodium calcium aluminosilicate reduction of aflatoxin M₁ residue in dietary goat milk and effects on milk production and components. Journal of Animal Science 72, 677–682
- 283. Höhler, D., Südekum, K.-H., Wolffram, S., Frohlich, A.A., Marquardt, R.R., 1999: Metabolism and excretion of ochratoxin A fed to sheep. Journal of Animal Science 77, 1217–1223
- 284. Prelusky, D.B., Veira, D.M., Trenholm, H.L., Foster, B.C., 1987: Metabolic fate and elimination in milk, urine and bile of deoxynivalenol following administration to lactating sheep. Journal of Environmental Science and Health B22, 125–148
- 285. Oyelami, O.A., Maxwell, S.M., Adelusola, K.A., Aladekoma, T.A., Oyelese, A.O., 1995: Aflatoxins in the autopsy brain tissue of children in Nigeria. Mycopathologia 132, 35–38
- 286. Chopra, R.C., Chhabra, A., Prasad, K.S.N., Dudhe, A., Murthy, T.N., Prasad, T., 1999: Carryover of aflatoxin M_1 in milk of cows fed aflatoxin B_1 contaminated ration. Indian Journal of Animal Nutrition 16, 103–106
- 287. Fukui, Y., Hoshino, K., Kameyama, Y., Yasui, T., Toda, C., Nagano, H., 1987: Placental transfer of ochratoxin A and its cytotoxic effect on the mouse embryo brain. Food and Chemical Toxicology 25, 17–24
- 288. Mirocha, C.J., Pawlowsky, R.A., Chatterjee, K., Watson, S., Hayes, W., 1983: Analysis for *Fusarium* toxins in various samples implicated in biological warfare in Southeast Asia. Journal of the Association of Official Analytical Chemists 66, 1485–1499

289. Anderson, P.H., Wells, G.A.H., Jackman, R., Morgan, M.R.A., 1984: Ochratoxicosis and ochratoxin residues in adult pig's kidneys – a pilot study. In: Moss, M.O., Frank, M. (eds)., Proceedings of the 5th Meeting on Mycotoxins in Animal and Human Health, Meeting, pp 23–29. University of Edinburgh, Surrey Press, Guildford, UK

- 290. Apostolou, E., El-Nezami, H.S., Ahokas, J.T., Donohue, D.C., 1998: The evaluation of ochratoxin A in breast milk in Victoria (Australia). Revue de Médicine Vétérinaire 149, 709
- 291. Bauer, J., Gareis, M., 1987: Ochratoxin A in the food chain. Journal of Veterinary Medicine Series B 34, 613–627 [German]
- 292. Baumann, U., Zimmerli, B., 1988: A simple determination of ochratoxin A in foods. Mitteilungen aus dem Gebiete der Lebensmitteluntersuchung und Hygiene 79, 151–158 [German]
- 293. Breitholtz, A., Olsen, M., Dahlbäck, Å, Hult, K., 1991: Plasma ochratoxin A levels in three Swedish populations surveyed using an ion-pair HPLC technique. Food Additives and Contaminants 8, 182–192
- 294. Breitholtz-Emanuelson, A., Olsen, M., Oskarsson, A., Palminger, I., Hult, K., 1993: Ochratoxin A in cow's milk and in human milk with corresponding human blood samples. Journal of the Association of Official Analytical Chemists International 76, 842–846
- 295. Büchmann, N.B., Hald, B., 1985: Analysis, occurrence and control of ochratoxin A residues in Danish pig kidneys. Food Additives and Contaminants 2, 193–199
- 296. Dieber, F., Köfer, J., 1999: Ochratoxin A-Nachweis im Serum steirischer Schlachtschweine. Deutsche Lebensmittel-Rundschau 95, 327–329 [German]
- 297. Dragacci, S., Grosso, F., Bire, R., Fremy, J.M., Coulon, S., 1999: A French monitoring programme for determining ochratoxin A occurrence in pig kidneys. Natural Toxins 7, 167–173
- 298. Elling, F., Hald, B., Lacobsen, Chr., Krogh, P., 1975: Spontaneous toxic nephropathy in poultry associated with ochratoxin A. Pathologica et Microbiologica Scandinavica Section A 83, 739–741
- 299. Ferrufino-Guardia, E.V., Tangni, E.K., Larondelle, Y., Ponchaut, S., 2000: Transfer of ochratoxin A during lactation: exposure of suckling via the milk of rabbit does fed a naturally-contaminated feed. Food Additives and Contaminants 17, 167–175
- 300. Fukal, L., 1990: A survey of cereals, cereal products, feedstuffs and porcine kidneys for ochratoxin A by radioimmunoassay. Food Additives and Contaminants 7, 253–258
- 301. Gareis, M., Märtlbauer, E., Bauer, J., Gedek, B., 1988: Determination of ochratoxin A in human milk. Zeitschrift für Lebensmittel-Untersuchung und -Forschung 186, 114–117
- 302. Gareis, M., Rosner, H., Ehrhardt, S., 2000: Blood serum levels of ochratoxin A and nutrition habits. Archiv für Lebensmittelhygiene 51, 108–110
- 303. Goliński, P., Grabarkiewicz-Szczesna, J., 1985: The first in Poland cases of detection of ochratoxin A residues in human blood. Roczniki Panstwowego Zakladu Higieny 36, 378–381 [Polish]
- 304. Goliński, P., Hult, K., Grabarkiewicz-Szczęsna, J., Chelkowski, J., Kneblewski, P., Szebiotko, K., 1984: Mycotoxic porcine nephropathy and spontaneous occurrence of ochratoxin A residues in kidneys and blood of Polish swine. Applied and Environmental Microbiology 47, 1210–1212
- 305. Goliński, P., Hult, K., Grabarkiewicz-Szczęsna, J., Chelkowski, J., Szebiotko, K., 1985: Spontaneous occurrence of ochratoxin A residues in porcine kidney and serum samples in Poland. Applied and Environmental Microbiology 49, 1014–1015
- 306. Hult, K., Hökby, E., Gatenbeck, S., Rutqvist, L., 1980: Ochratoxin A in blood from slaughter pigs in Sweden: use in evaluation of toxin content of consumed feed. Applied and Environmental Microbiology 39, 828–830
- 307. Langseth, W., Nymoen, U., Bergsjø, B., 1993: Ochratoxin A in plasma of Norwegian swine determined by an HPLC column-switching method. Natural Toxins 1, 216–221
- 308. Corley, R.A., Swanson, S.P., Buck, W.B., 1985: Glucuronide conjugates of T-2 toxin and metabolites in swine bile and urine. Journal of Agricultural and Food Chemistry 33, 1085–1089

309. Olsen, M., Malmlöf, K., Pettersson, H., Sandholm, K., Kiessling, K.-H., 1985: Plasma and urinary levels of zearalenone and α-zearalenol in a prepubertal gilt fed zearalenone. Acta Pharmacologica et Toxicologica 56, 239–243

- 310. Vinitketkumnuen, U., Chewonarin, T., Dhumtanom, P., Lertprasertsuk, N., Wild, C.P., 1999: Aflatoxin-albumin adduct formation after single and multiple doses of aflatoxin B₁ in rats treated with Thai medicinal plants. Mutation Research 428, 345–351
- 311. Godin, M., Francois, A., le Roy, F., Morin, J.-P., Creppy, E., Hemet, J., Fillastre, J.-P., 1996: Karyomegalic interstitial nephritis. American Journal of Kidney Diseaes 27, 166
- 312. Breitholtz-Emanuelsson, A., Palminger-Hallén, I., Wohlin, P.O., Oskarsson, A., Hult, K., Olsen, M., 1993: Transfer of ochratoxin A from lactating rats to their offsprings: a short term study. Natural Toxins 1, 347–352
- 313. Dashwood, R.H., Arbogast, D.N., Fong, A.T., Hendricks, J.D., Bailey, G.S., 1988: Mechanisms of anti-carcinogenesis by indole-3-carbinol: detailed *in vivo* DNA binding dose-response studies after dietary administration with aflatoxin B, Carcinogenesis 9, 427–432
- 314. Murthy, T.R.K., Jemmali, M., Henry, Y., Frayssinet, C., 1975: Aflatoxin residues in tissues of growing swine: effect of separate and mixed feeding of protein and protein-free portions of the diet. Journal of Animal Science 41, 1339–1347
- 315. Josefsson, A.E., 1979: Study of ochratoxin A in pig kidneys. Vår Föda 31, 415–420 [Swedish]
- 316. Frye, C.E., Chu, F.S., 1977: Distribution of ochratoxin A in chicken tissues and eggs. Journal of Food Safety 1, 147–159
- 317. Galtier, P., 1974: The fate of ochratoxin A in the animal organism. I. Transport of the toxin in the blood of the rat. Annales des Recherches Vétérinaires 5, 311–318 [French]
- 318. Robison, T.S., Mirocha, C.J., Kurtz, H.J., Behrens, J.C., Weaver, G.A., Chi, M.S., 1979: Distribution of tritium-labeled T-2 toxin in swine. Journal of Agricultural and Food Chemistry 27, 1411–1413
- 319. Hayes, J.R., Polan, C.E., Campbell, T.C., 1977: Bovine liver metabolism and tissue distribution of aflatoxin B, Journal of Agricultural and Food Chemistry 25, 1189–1193
- 320. Lötzsch, R., Leistner, L., 1976: Aflatoxin residues in hen's eggs and egg products. Fleischwirtschaft 56, 1777–1785 [German]
- 321. Jiang, Y., Jolly, P.E., Ellis, W.O., Wang, J.-S., Phillips, T.D., Williams, J.H., 2005: Aflatoxin $\rm B_1$ albumin adduct levels and cellular immune status in Ghanaians. International Immunology 17, 807–814
- 322. Hallén, I.P., Breitholz-Emanuelsson, A., Hult, K., Olsen, M., Oskarsson, A., 1998: Placental and lactational transfer of ochratoxin A in rats. Natural Toxins 6, 43–49
- 323. Hult, K., Pleština, R., Habazin-Novak, V., 1982: Ochratoxin A in human blood and Balkan endemic nephropathy. Archives of Toxicology 51, 313–321
- 324. Jørgensen, K., Petersen, A., 2002: Content of ochratoxin A in paired kidney and meat samples from healthy Danish slaughter pigs. Food Additives and Contaminants 19, 562–567
- 325. Köfer, J., Schuh, M., Fuchs, K., 1991: Ochratoxin A residues in Styrian slaughter pigs. Tierärztliche Umschau 46, 657–660 [German]
- 326. Kotowski, K., Grabarkiewicz-Szczęsna, J., Waskiewicz, A., Kostecki, M., Golinski, P., 2000: Ochratoxin A in porcine blood and in consumed feed samples. Mycotoxin Research 16, 66–72
- 327. Kotowski, K., Kostecki, M., Grabarkiewicz-Szczęsna, J., Golinski, P., 1993: Ochratoxin A residue in kidneys and blood of pigs. Medycyna Weterynaryjna 49, 554–556 [Polish]
- 328. Krogh, P., 1977: Ochratoxin A residues in tissues of slaughter pigs with nephropathy. Nordic Veterinary Medicine A 29, 402–405
- 329. Maaroufi, K., Achour, A., Betbeder, A.M., Hammami, M., Ellouz, F., Creppy, E.E., Bacha, H., 1995: Foodstuffs and human blood contamination by the mycotoxin ochratoxin A: correlation with chronic interstitial nephropathy in Tunisia. Archives of Toxicology 69, 552–558
- 330. Madsen, A., Hald, B., Lillehøj, E., Mortensen, H.P., 1982: Feeding experiments with ochratoxin A contaminated barley for bacon pigs. 2. Naturally contaminated barley given for 6 weeks from 20 kg compared with normal barley supplemented with crystalline ochratoxin A and/or citrinin. Acta Agriculturœ Scandinavica 32, 369–372

331. Ministry of the Agriculture, Fisheries and Foods (MAFF), 1993: Mycotoxins: Third report: 36th report of the steering group on chemical aspects of food surveillance (London: HSMO) pp. 39–44

- 332. Sadeghi, N., Oveisi, M.R., Jannat, B., Hajimahmoodi, M., Bonyani, H., Jannat, F., 2009: Incidence of aflatoxin M, in human breast milk in Teheran, Iran. Food Control 20, 75–78
- 333. Majerus, P., Otteneder, H., Hower, C., 1989: Beitrag zum Vorkommen von Ochratoxin A in Schweineblutserum. Deutsche Lebensmittel-Rundschau 85, 307–313 [German]
- 334. Marquardt, R.R., Frohlich, A.A., Sreemannarayana, O., Abramson, D., Bernatsky, A., 1988: Ochratoxin A in blood from slaughter pigs in western Canada. Canadian Journal of Veterinary Research 52, 186–190
- 335. Morgan, M.R.A., McNerney, R., Chan, H.W.-S., Anderson, P.H., 1986: Ochratoxin A in pig kidney determined by enzyme-linked immunosorbent assay (ELISA). Journal of the Science of Food and Agriculture 37, 475–480
- 336. Mortensen, H.P., Hald, B., Larsen, A.E., Madsen, A., 1983: Ochratoxin A contaminated barley for sows and piglets. Pig performance and residues in milk and pigs. Acta Agriculturæ Scandinavica 33, 349–352
- 337. Olberg, I.H., Yndestad, M., 1982: A Norwegian survey of ochratoxin A in cereals and animal tissue. Nordisk Jordbruksforskning 64, 296
- 338. Ominski, K.H., Frohlich, A.A., Marquardt, R.R., Crow, G.H., Abramson, D., 1996: The incidence and distribution of ochratoxin A in western Canadian swine. Food Additives and Contaminants 13, 185–198
- 339. Pietri, A., Bertuzzi, T., Gualla, A., Piva, G., 2006: Occurrence of ochratoxin A in raw ham muscles and in pork products from nothern Italy. Italian Journal of Food Science 18, 99–106
- 340. Razzazi, E., Böhm, J., Grajewski, J., Szczepaniak, K., Kübber-Heiss, A.J., Iben, C.H., 2001: Residues of ochratoxin A in pet foods, canine and feline kidneys. Journal of Animal Physiology and Animal Nutrition 85, 212–216
- 341. Rosner, H., Rohrmann, B., Peiker, G., 2000: Ochratoxin A in human serum. Archiv für Lebensmittelhygiene 51, 104–107
- 342. Rousseau, D.M., Candlish, A.A.G., Slegers, G.A., van Peteghem, C.H., Stimson, W.H., Smith, J.E., 1987: Detection of ochratoxin A in porcine kidneys by a monoclonal antibody-based radioimmunoassay. Applied and Environmental Microbiology 53, 514–518
- Rousseau, D.M., van Peteghem, C.H., 1989: Spontaneous occurrence of ochratoxin A residues in porcine kidneys in Belgium. Bulletin of Environmental Contamination and Toxicology 42, 181–186
- 344. Rutqvist, L., Björklund, N.-E., Hult, K., Gatenbeck, S., 1977: Spontaneous occurrence of ochratoxin residues in kidneys of fattening pigs. Zentralblatt für Veterinär Medizin A 24, 402–408
- 345. Scott, P.M., Kanhere, S.R., Lau, B.P.-Y., Lewis, D.A., Hayward, S., Ryan, J.J., Kuiper-Goodman, T., 1998: Survey of Canadian human blood plasma for ochratoxin A. Food Additives and Contaminants 15, 555–562
- 346. Skaug, M.A., Helland, I., Solvoll, K., Saugstad, O.D., 2001: Presence of ochratoxin A in human milk in relation to dietary intake. Food Additives and Contaminants 18, 321–327
- 347. Skaug, M.A., Størmer, F.C., Saugstad, O.D., 1998: Ochratoxin A: a naturally occurring mycotoxin found in human milk samples from Norway. Acta Pædiatrica 87, 1275–1278
- 348. Tyllinen, H., Hintikka, E.-L., 1982: Occurrence of ochratoxin A in swine kidneys and feed in Finland. Nordisk Jordbruksforskning 64, 298–299
- 349. Zimmerli, B., Dick, R., 1995: Determination of ochratoxin A at the ppt level in human blood, serum, milk and some foodstuffs by high-performance liquid chromatography with enhanced fluorescence detection and immunoaffinity column cleanup: methodology and Swiss data. Journal of Chromatography B, 666, 85–99
- 350. Curtui, V.G., Gareis, M., Usleber, E., Märtlbauer, E., 2001: Survey of Romanian slaughtered pigs for the occurrence of mycotoxins ochratoxins A and B, and zearalenone. Food Additives and Contaminants 18, 730–738
- 351. El-Sayed, A.M.A.A., Neamat-Allah, A.A., Soher, E.A., 2000: Situation of mycotoxins in milk, dairy products and human milk in Egypt. Mycotoxin Research 16, 91–100

352. El-Sayed, A.M.A.A., Soher, E.A., Neamat-Allah, A.A., 2002: Human exposure to mycotoxins in Egypt. Mycotoxin Research 18, 23–30

- 353. Fukal, L., Reisnerova, H., 1990: Monitoring of aflatoxins and ochratoxin A in Czechoslovak human sera by immunoassay. Bulletin of Environmental Contamination and Toxicology 44, 345–349
- 354. Jonsyn, F.E., Maxwell, S.M., Hendrickse, R.G., 1995: Ochratoxin A and aflatoxins in breast milk samples from Sierra Leone. Mycopathologia 131, 121–126
- 355. Navas, S.A., Sabino, M., Rodriguez-Amaya, D.B., 2005: Aflatoxin M₁ and ochratoxin A in a human milk bank in the city of São Paulo, Brazil. Food Additives and Contaminants 22, 457–462
- 356. Turconi, G., Guarcello, M., Livieri, C., Comizolli, S., Maccarini, L., Castellazzi, A.M., Pietri, A., Piva, G., Roggi, C., 2004: Evaluation of xenobiotics in human milk and ingestion by the newborn. An epidemiological survey in Lombardy (Nothern Italy). European Journal of Nutrition 43, 191–197
- 357. Chen, C., Pearson, A.M., Coleman, T.H., Gray, J.I., Pestka, J.J., Aust, S.D., 1984: Tissue deposition and clearance of aflatoxins from broiler chickens fed a contaminated diet. Food and Chemical Toxicology 22, 447–451
- 358. Fernández, A., Belio, R., Ramos, J.J., Sanz, M.C., Sáez, T., 1997: Aflatoxins and their metabolites in the tissues, faeces and urine from lambs feeding on an aflatoxin-contaminated diet. Journal of the Science of Food and Agriculture 74, 161–168
- 359. Fernández, A., Verde, M.T., Gascón, M., Ramos, J.J., Gómez, J., 1994: Aflatoxin and its metabolites in tissues from laying hens and broiler chickens fed a contaminated diet. Journal of the Science of Food and Agriculture 65, 407–414
- 360. Okumura, H., Kawamura, O., Kishimoto, S., Hasegawa, A., Shrestha, S.M., Okuda, K., Obata, H., Okuda, H., Haruki, K., Uchida, T., Ogasawara, Y., Ueno, Y., 1993: Aflatoxin \mathbf{M}_1 in Nepalese sera, quantified by combination of monoclonal antibody immunoaffinity chromatography and enzyme-linked immunosorbent assay. Carcinogenesis 14, 1233–1235
- 361. Oliveira, C.A.F., Kobashigawa, E., Reis, T.A., Mestieri, L., Albuquerque, R., Corrêa, B., 2000: Aflatoxin B₁ residues in eggs of laying hens fed a diet containing different levels of the mycotoxin. Food Additives and Contaminants 17, 459–462
- 362. Trucksess, M.W., Stoloff, L., Brumley, W.C., Wilson, D.M., Hale, O.M., Sangster, L.T., Miller, D.M., 1982: Aflatoxicol and aflatoxins B_1 and M_1 in the tissues of pigs receiving aflatoxin. Journal of the Association of Official Analytical Chemists 65, 884–887
- 363. Trucksess, M.W., Stoloff, L., Young, K., Wyatt, R.D., Miller, B.L., 1983: Aflatoxicol and aflatoxins B_1 and M_1 in eggs and tissues of laying hens consuming aflatoxin-contaminated feed. Poultry Science 62, 2176–2182
- 364. Valenta, H., Dänicke, S., Döll, S., 2003: Analysis of deoxynivalenol and de-epoxy-deoxynivalenol in animal tissues by liquid chromatography after clean-up with an immunoaffinity column. Mycotoxin Research 19, 51–55
- 365. Lusky, K., Tesch, D., Göbel, R., 1995: Untersuchung der Wirkung von natürlichem und kristallinem Ochratoxin A nach Verfütterung über 28 Tage beim Schwein mit anschließender Untersuchung des Rückstandsverhaltens beider Formen des Mykotoxins in Körperflüssigkeit und Organen sowie in Fleisch- und Wurstwaren. Archiv für Lebensmittelhygiene 46, 45–48 [German]
- 366. Lusky, K., Tesch, D., Göbel, R., Doberschütz, K.-D., 1994: Ochratoxin A. Untersuchungen zum Rückstandsverhalten beim Schwein und in daraus hergestellten Lebensmitteln. Fleischwirtschaft 74, 558–560 [German]
- Dorner, J.W., Cole, R.J., Erlington, D.J., Suksupath, S., McDowell, G.H., Bryden, W.L., 1994: Cyclopiazonic acid residues in milk and eggs. Journal of Agricultural and Food Chemistry 42, 1516–1518
- 368. Belmadani, A., Tramu, G., Betbeder, A.M., Steyn, P.S., Creppy, E.E., 1998: Regional selectivity to ochratoxin A, distribution and cytotoxicity in rat brain. Archives of Toxicology 72, 656–662

369. Razzazi, E., Böhm, J., Kettner, B., Hochsteiner, W., Kahlbacher, H., 2002: Metabolisierung von Deoxynivalenol beim Schwein: Bestimmung von DON und DOM-1 im Urin vom Schwein. Mycotoxin Research 18A, 84–88 [German]

- 370. Azcona-Olivera, J.I., Ouyang, Y., Murtha, J., Chu, F.S., Pestka, J.J., 1995: Induction of cytokine mRNAs in mice after oral exposure to the trichothecene vomitoxin (deoxynivalenol): relationship to toxin distribution and protein synthesis inhibition. Toxicology and Applied Pharmacology 133, 109–120
- 371. Hult, K., Rutquist, L., Holmberg, T., Thafvelin, B., Gatenbeck, S., 1984: Ochratoxin A in blood of slaughter pigs. Nordisk Veterinaermedicin 36, 314–316
- 372. Teleb, H.M., Fakhry, F.M., 1988: Aflatoxin B₁ residue in broiler and its effect on fat metabolism. Veterinary Medical Journal 36, 135–145
- 373. Espada, Y., Guitart, R., Arboix, M., 1991: Quantitative determination of aflatoxin B₁ in chick liver. Food Additives and Contaminants 8, 163–170
- 374. Bauer, J., Niemiec, J., Scholtyssek, S., 1988: Ochratoxin A in layers' feed. 2. Report: residues in blood sera, livers and eggs. Archiv für Geflügelkunde 52, 71–75 [German]
- 375. Garaleviciene, D., Pettersson, H., Elwinger, K., 2002: Effects on health and blood plasma parameters of laying hens by pure nivalenol in the diet. Journal of Animal Physiology and Animal Nutrition 86, 389–398
- 376. Prior, M.G., O'Neil, J.B., Sisodia, C.S., 1980: Effects of ochratoxin A on growth response and residues in broilers. Poultry Science 59, 1254–1257
- 377. Lun, A.K., Young, L.G., Moran, Jr., E.T., Hunter, D.B., Rodriguez, J.P., 1986: Effects of feeding hens a high level of vomitoxin-contaminated corn on performance and tissue residues. Poultry Science 65, 1095–1099
- 378. Lusky, K., Göbel, R., Tesch, D., Tenner, G., Haider, W., Krüger, M., Lippert, A., 1998: Studies on the effects of ochratoxin A and deoxynivalenol toxicity on the health of pigs and tissue residue concentrations. Tierärztliche Umschau 53, 623–630 [German]
- 379. Kipper, L., Schweigmann, A., Vater, N., 1991: Studies of the carry-over of ochratoxin A within the line "animal food-pigs for slaughter-meat products". Tierärztliche Umschau 46, 538–542 [German]
- 380. Lusky, K., Tesch, D., Göbel, R., Haider, W., 1997: Effects of OTA and ZEA on animal health and residue behaviour of pigs. Tierärztliche Umschau 52, 212–221 [German]
- 381. Wilkinson, A.P., Denning, D.W., Morgan, M.R.A., 1989: Immunoassay of aflatoxin in food and human tissue. Journal of Toxicology Toxin Reviews 8, 69–79
- 382. Piskorska-Pliszczyńska, J., Juskiewicz, T., 1990: Tissue distribution and passage into eggs of ochratoxin A in Japanese quail. Journal of Environmental Pathology, Toxicology and Oncology 10, 8–10
- 383. Krogh, P., Elling, F., Gyrd-Hansen, N., Hald, B., Larsen, A.E., Lillehøj, E.B., Madsen, A., Mortensen, H.P., Ravnskov, U., 1976: Experimental porcine nephropathy: changes of renal function and structure perorally induced by crystalline ochratoxin A. Acta Pathologia Microbiologica Scandinavica Section A 84, 429–434
- 384. Bailey, G.S., Loveland, P.M., Pereira, C., Pierce, D., Hendricks, J.D., Groopman, J.D., 1994: Quantitative carcinogenesis and dosimetry in rainbow trout for aflatoxin B₁ and aflatoxicol, two aflatoxins that form the same DNA adduct. Mutation Research 313, 25–38
- 385. Matsumoto, H., Ito, T., Ueno, Y., 1978: Toxicological approaches to the metabolites of Fusaria. XII. Fate and distribution of T-2 toxin in mice. Japanese Journal of Experimental Medicine 48, 393–399
- 386. Hald, B., 1991: Ochratoxin A in human blood in European countries. IARC Scientific Publications pp. 159–164
- 387. Brasel, T.L., Campbell, A.W., Demers, R.E., Ferguson, B.S., Fink, J., Vojdani, A., Wilson, S.C., Straus, D.C., 2004: Detection of trichothecene mycotoxins in sera from individuals exposed to *Stachybotrys chartarum* in indoor environments. Archives of Environmental Health 59, 317–323
- 388. Wang, J.-S., Huang, T., Su, J., Liang, F., Wei, Z., Liang, Y., Luo, H., Kuang, S.-Y., Qian, G.-S., Sun, G., He, X., Kensler, T.W., Groopman, J.D., 2001: Hepatocellular carcinoma and aflatoxin expo-

- sure in Zhuqing Village, Fusui County, People's Republic of China. Cancer Epidemiology, Biomarkers & Prevention 10, 143–146
- 389. Pace, J.G., Watts, M.R., Burrows, E.P., Dinterman, R.E., Matson, C., Hauer, E.C., Wannemacher, Jr., R.W., 1985: Fate and distribution of ³H-labeled T-2 mycotoxin in guinea pigs. Toxicology and Applied Pharmacology 80, 377–385
- 390. Jonsyn, F.E., Maxwell, S.M., Hendrickse, R.G., 1995: Human fetal exposure to ochratoxin A and aflatoxins. Annals of Tropical Paediatrics 15, 3–9
- 391. Ueno, Y, Takai, Y., Baba, Y., 1990: Analysis of T-2 toxin metabolites in tissues and excreta of rats. Journal of Environmental Pathology, Toxicology and Oncology 10, 31–40
- 392. Sudhakar, B.V., 1992: The carry-over effect of aflatoxin B_1 into eggs and liver of chicken. Indian Veterinary Journal 69, 1061-1062
- 393. Pepeljnjak, S., Blaževic, N., Čuljak, K., 1982: Histopathological changes and findings of ochratoxin A in organs of pigs, in the area of endemic nephropathy in Yugoslavia. Proceedings of the V. International Symposium on Mycotoxins and Phycotoxins, Vienna 346–348
- 394. Dailey, R.E., Reese, R.E., Brouwer, E.A., 1980: Metabolism of [14C]zearalenone in laying hens. Journal of Agricultural and Food Chemistry 28, 286–291
- 395. Solti, L., Pécsi, T., Barna-Vetró, I., Szasz, Jr., F., Biró, K, Szabó, E., 1999: Analysis of serum and seminal plasma after feeding ochratoxin A with breeding boars. Animal Reproduction Science 56, 123–132
- 396. Commission of the European Communities. Reports on tasks for scientific cooperation. Report of experts participating in task 3.2.2: assessment of dietary intake of ochratoxin A by the population in EU member states. Report EUR 17523 EN, 1997
- 397. Hoogenboom, L.A.P., Tulliez, J., Gautier, J.-P., Coker, R.D., Melcion, J.-P., Nagler, M.J., Polman, T.H.G., Delort-Laval, J., 2001: Absorption, distribution and excretion of aflatoxin-derived ammoniation products in lactating cows. Food Additives and Contaminants 18, 47–58
- 398. Yadav, A.S., Satija, K.C., Mahipal, S.K., 1995: Aflatoxin B₁ deposition and clearance from tissues of broiler. Indian Journal of Poultry Science 30, 165–166
- 399. Colvin, B.M., Harrison, L.R., Gosser, H.S., Hall, R.F., 1984: Aflatoxicosis in feeder cattle. Journal of American Veterinary Association 184, 956–958
- 400. Reichmann, K.G., Blaney, B.J., Connor, J.K., Runge, B.M., 1982: The significance of aflatoxin and ochratoxin in the diet of Australian chickens. Australian Veterinary Journal 58, 211–212
- 401. Jonsyn-Ellis, F.E., 2000: Seasonal variation in exposure frequency and concentration levels of aflatoxins and ochratoxins in urine samples of boys and girls. Mycopathologia 152, 35–40
- 402. James, L.J., McGirr, L.G., Smith, T.K., 1982: High pressure liquid chromatography of zearalenone and zearenols in rat urine and liver. Journal of the Association of Official Analytical Chemists 65, 8–13
- 403. Beasley, V.R., Swanson, S.P., Corley, R.A., Buck, W.B., Koritz, G.D., Burmeister, H.R., 1986: Pharmacokinetics of the trichothecene mycotoxin, T-2 toxin, in swine and cattle. Toxicon 24, 13–23
- 404. Meyer, K., Usleber, E, Märtlbauer, E., Bauer, J., 2000: Occurrence of zearalenone, α and β -zearalenol in biles of breeding sows in relation to the reproductive performance. Berliner und Münchener Tierärztliche Wochenschrift 113, 374–379 [German]
- 405. Loveland, P.M., Wilcox, J.S., Pawlowski, N.E., Bailey, G.S., 1987: Metabolism and DNA binding of aflatoxicol and aflatoxin B₁ *in vivo* and in isolated hepatocytes from rainbow trout (*Salmo gairdneri*). Carcinogenesis 8, 1065–1070
- 406. Prelusky, D.B., Trenholm, H.L., 1992: Nonaccumulation of residues in swine tissue following extended consumption of deoxynivalenol-contaminated diets. Journal of Food Science 57, 801–802
- 407. Prelusky, D.B., Trenholm, H.L., 1991: Tissue distribution of deoxynivalenol in swine dosed intravenously. Journal of Agricultural and Food Chemistry 39, 748–751

408. Barel, S., Yagen, B., Bialer, M., 1990: Pharmacokinetics of the trichothecene mycotoxin verrucarol in dogs. Journal of Pharmaceutical Sciences 79, 548–551

- 409. Tesch, D., Lusky, K., 1993: Untersuchungen zum Einfluß des Mykotoxins Ochratoxin A auf die Tiergesundheit und auf das Rückstandsverhalten beim Schwein. Archiv für Lebensmittelhygiene 44, 77–80 [German]
- 410. Rousseau, D.M., Slegers, G.A., van Peteghem, C.H., 1986: Solid-phase radioimmunoassay of ochratoxin A in serum. Journal of Agricultural and Food Chemistry 34, 862–865
- 411. Holmberg, T., Breitholz, A., Bengtsson, A., Hult, K., 1990: Ochratoxin A in swine blood in relation to moisture content in feeding barley at harvest. Acta Agriculturae Scandinavica 40, 201–204
- 412. Tomaszewski, J., Miturski, R., Semezuk, A., Kotarski, J., Jakowicki, J., 1998: Tissue zearalenone concentrations in normal, hyperplastic and neoplastic human endometrium. Ginkologia Polska 69, 363–366 [Polish]
- 413. Dänicke, S., Valenta, H., Döll, S., 2004: On the toxicokinetics and the metabolism of deoxynivalenol (DON) in the pig. Archives of Animal Nutrition 58, 169–180
- 414. Sypecka, Z., Kelly, M., Brereton, P., 2004: Deoxynivalenol and zearalenone residues in eggs of laying hens fed with a naturally contaminated diet: effects on egg production and estimation of transmission rates from feed to eggs. Journal of Agricultural and Food Chemistry 52, 5463–5471
- 415. Meky, F.A., Turner, P.C., Ashcroft, A.E., Miller, J.D., Qiao, Y.-L., Roth, M.J., Wild, C.P., 2003: Development of a urinary biomarker of human exposure to deoxynivalenol. Food and Chemical Toxicology 41, 265–273
- 416. Eriksen, G.S., Pettersson, H., Lindberg, J.E., 2003: Absorption, metabolism and excretion of 3-acetyl DON in pigs. Archives of Animal Nutrition 57, 335–345
- 417. Turner, P.C., Rothwell, J.A., White, K.L.M., Gong, Y.Y., Cade, J.E., Wild, C.P., 2008: Urinary deoxynivalenol is correlated with cereal intake in individuals from the United Kingdom. Environmental Health Perspectives 116, 21–25
- 418. Obremski, K., Gajęcki, M., Zwierzchowski, W., Bakula, T., Apoznański, J., Wojciechowski, J., 2003: The level of zearalenone and α -zearalenol in the blood of gilts with clinical symptoms of toxicosis, fed diets with a low zearalenone content. Journal of Animal and Feed Sciences 12, 529–538
- 419. Stoev, S.D., Vitanov, S., Anguelov, G., Petkova-Bocharova, T., Creppy, E.E., 2001: Experimental mycotoxic nephropathy in pigs provoked by a diet containing ochratoxin A and penicillic acid. Veterinary Research Communications 25, 205–223
- 420. Turner, P.C., Collison, A.C., Cheung, Y.B., Gong, Y.Y., Hall, A.J., Prentice, A.M., Wild, C.P., 2007: Aflatoxin exposure *in utero* causes growth faltering in Gambian infants. International Journal of Epidemiology 36, 1119–1125
- 421. Bauer, J., Bollwahn, W., Gareis, M., Gedek, B., Heinritzi, K., 1985: Kinetic profiles of diacetoxyscirpenol and two of its metabolites in blood serum of pigs. Applied and Environmental Microbiology 49, 842–845
- 422. Farnworth, E.R., Trenholm, H.L., 1983: The metabolism of the mycotoxin zearalenone and its effects on the reproductive tracts of young male and female pigs. Canadian Journal of Animal Science 63, 967–975
- 423. Prelusky, D.B., Trenholm, H.L., Hamilton, R.M.G., Miller, J.D., 1987: Transmission of [14C] deoxynivalenol to eggs following oral administration to laying hens. Journal of Agricultural and Food Chemistry 35, 182–186
- 424. Prelusky, D.B., Hamilton, R.M.G., Trenholm, H.L., 1989: Transmission of residues to eggs following long-term administration of ¹⁴C-labelled deoxynivalenol to laying hens. Poultry Science 68, 744–748
- 425. Corley, R.A., Swanson, S.P., Gullo, G.J., Johnson, L., Beasley, V.R., Buck, W.B., 1986: Disposition of T-2 toxin, a trichothecene mycotoxin, in intravascularly dosed swine. Journal of Agricultural and Food Chemistry 34, 868–875
- 426. Manique, R., Pena, A., Lino, C.M., Moltó, J.C., Mañes, J., 2008: Ochratoxin A in the morning and afternoon portions of urine from Coimbra and Valencian populations. Toxicon 51, 1281–1287

427. McCoy, L.F., Scholl, P.F., Sutcliffe, A.E., Kieszak, S.M., Powers, C.D., Rogers, H.S., Gong, Y.Y., Groopman, J.D., Wild, C.P., Schleicher, R.L., 2008: Human aflatoxin albumin adducts quantitatively compared by ELISA, HPLC with fluorescence detectection, and HPLC with isotope dilution mass spectrometry. Cancer Epidemiology, Biomarkers & Prevention 17, 1653–1657

- 428. Abdulrazzaq, Y.M., Osman, N., Yousif, Z.M., Trad, O., 2004: Morbidity in neonates of mothers who have ingested aflatoxins. Annals of Tropical Paediatrics 24, 145–151
- 429. Assaf, H., Betbeder, A.-M., Creppy, E.E., Pallardy, M., Azouri, H., 2004: Ochratoxin A levels in human plasma and foods in Lebanon. Human & Experimental Toxicology 23, 495–501
- 430. Bammler, T.K., Slone, D.H., Eaton, D.L., 2000: Effects of dietary oltipraz and ethoxyquin on aflatoxin B. biotransformation in non-human primates. Toxicological Science 54, 30–41
- 431. Losito, I., Monaci, L., Palmisano, F., Tantillo, G., 2004: Determination of ochratoxin A in meat products by high-performance liquid chromatography coupled to electrospray ionisation sequential mass spectrometry. Rapid Communications in Mass Spectrometry 18, 1965–1971
- 432. Gajęcki, M, Przybylowicz, M., Zielonka, L., Zwierzchowski, W., Obremski, K., Skorska-Wyszyńska, E., Gajęcka, M., Polak, M., Jakimiuk, E., 2004: Preliminary results of monitoring research on zearalenone presence in blood of women with neoplastic lesions in reproductive system. Polish Journal of Veterinary Sciences 7, 153–156
- 433. Zarba, A., Hmieleski, R., Hemenway, D.R., Jakab, G.J., Groopman, J.D., 1992: Aflatoxin B₁-DNA adduct formation in rat liver following exposure by aerosol inhalation. Carcinogenesis 13, 1031–1033
- 434. Lopez, C., Ramos, L., Bulacio, L., Ramadan, S., Rodriguez, F., 2002: Aflatoxin B₁ content in patients with hepatic diseases. MEDICINA (Buenos Aires) 62, 313–316
- 435. Autrup, J.L., Schmidt, J., Autrup, H., 1993: Exposure to aflatoxin B₁ in animal-feed production plant workers. Environmental Health Perspectives 99, 195–197
- 436. Sewram, V., Mshicileli, N., Shephard, G.S., Marasas, W.F.O., 2003: Fumonisin mycotoxins in human hair. Biomarkers 8, 110–118
- 437. Nayak, S., Sashidhar, R.B., Bhat, R.V., 2001: Quantification and validation of enzyme immunoassay for urinary aflatoxin B_1 - N^7 -guanine adduct for biological monitoring of aflatoxins. Analyst 126, 179–183
- 438. Sangare-Tigori, B., Moukha, S., Kouadio, J.H., Dano, D.S., Betbeder, A.-M., Achour, A., Creppy, E.E., 2006: Ochratoxin A in human blood in Abidjan, Côte d'Ivoire. Toxicon 47, 894–900
- 439. Vettorazzi, A., Gonzales-Peňas, E., Arbillagra, L., Corcuera, L.-A., López de Cerain, A., 2008: Simple high-performance liquid chromatography-fluorescence detection method for plasma, kidney and liver of rats as a tool for toxicological studies. Journal of Chromatography A 1215, 100–106
- 440. Skaug, M.A., 2003: Levels of ochratoxin A and IGG against conidia of *Penicillium verruculosum* in blood samples from healthy farm workers. Annals of Agricultural and Environmental Medicine 10, 73–77
- 441. Monaci, L., Tantillo, G., Palmisano, F., 2004: Determination of ochratoxin A in pig tissues by liquid-liquid extraction and clean-up and high-performance liquid chromatography. Analytical and Bioanalytical Chemistry 378, 1777–1782
- 442. Turner, P.C., Burley, V.J., Rothwell, J.A., White, K.L.M., Cade, J.E., Wild, C.P., 2008: Dietary wheat reduction decreases the level of urinary deoxynivalenol in UK adults. Journal of Exposure Science and Environmental Epidemiology 18, 392–399
- 443. Ibeh, I.N., Uraih, N., Ogonar, J.I., 1994: Dietary exposure to aflatoxin in human male infertility in Benin City, Nigeria. International Journal of Fertility and Menopausal Studies 39, 208–214
- 444. Chao, T.C., Lo, D., Bloodworth, B., Gunasegaram, R., Koh, T., Ng, H., 1994: Aflatoxin exposure in Singapore: blood aflatoxin levels in normal subjects, hepatitis B virus carriers and primary hepatocellular carcinoma patients. Medicine, Science and the Law 34, 289–298

445. Mehta, R., Laver, G.W., Stapley, R., McMullen, E., 1992: Liver DNA adducts in methyl-deficient rats administered a single dose of aflatoxin B., Carcinogenesis 13, 1241–1247

- 446. Postupolski, J., Karlowski, K., Kubik, P., 2006: Ochratoxin A in maternal and foetal blood and in maternal milk. Roczniki Panstwowego Zaklado Higieny 57, 23–30
- 447. Hatem, N.L., Hassab, H.M.A., Abd Al-Rahman, E.M., El-Deeb, S.A., El-Sayed Ahmed, R.L., 2005: Prevalence of aflatoxins in blood and urine of Egyptian infants with protein-energy malnutrition. Food and Nutrition Bulletin 26, 49–56
- 448. Egner, P.A., Groopman, J.D., Wang, J.-S., Kensler, T., Friesen, M.D., 2006: Quantification of aflatoxin-B₁-N⁷-guanine in human urine by high-performance liquid chromatography and isotope dilution tandem mass spectrometry. Chemical Research in Toxicology 19, 1191–1195
- 449. Hassan, A.M., Sheashaa, H.A., Fattah, M.F.A., Ibrahim, A.Z., Gaber, O.A., Sobh, M.A., 2006: Study of ochratoxin A as an environmental risk that causes renal injury in breast-fed Egyptian infants. Pediatric Nephrology 21, 102–105
- 450. Dostal, A., Jakusova, L., Cajdova, J., Hudeckova, H., 2008: Results of the first studies of occurrence of ochratoxin A in human milk in Slovakia. Bratislavslec Lekarske Listy 109, 276–278
- 451. Tang, L., Tang, M., Xu, L., Luo, H., Huang, T., Yu, J., Zhang, L., Gao, W., Cox, S.B., Wang, J.-S., 2008: Modulation of aflatoxin biomarkers in human blood and urine by green tea polyphenols intervention. Carcinogenesis 29, 411–417
- 452. Tajik, H., Rohani, S.M.R., Moradi, M., 2007: Detection of aflatoxin $\rm M_1$ in raw and commercial pasteurized milk in Urmia, Iran. Pakistan Journal of Biological Sciences 10, 4103–4107
- 453. Sefidgar, S.A.A., Azizi, G., Khosravi, A.R., Roudbar-Mohammadi, S., 2008: Presence of aflatoxin \mathbf{M}_1 in raw milk at cattle farms in Babol, Iran. Pakistan Journal of Biological Science 11, 484–486
- 454. Shundo, L., Sabino, M., 2006: Aflatoxin M_1 in milk by immunoaffinity column cleanup with TLC/HPLC determination. Brazilian Journal of Microbiology 37, 164–167
- 455. Mokhles, M., Abdl El Wahhab, M.A., Tawfik, M., Ezzat, W., Gamil, K., Ibrahim, M., 2007: Detection of aflatoxin among hepatocellular carcinoma patients in Egypt. Pakistan Journal of Biological Science 10, 1422–1429
- 456. Duarte, S., Bento, J., Pena, A., Lino, C.M., Delerue-Matos, C., Oliva-Teles, T., Morais, S., Correira, M., Oliveira, M.B.P.P., Alves, M.R., Pereira, J.A., 2010: Monitoring of ochratoxin A exposure of the Portuguese population through a nationwide urine survey Winter 2007. Science of the Total Environment 408, 1195–1198
- 457. Jolly, P., Jiang, Y., Ellis, W., Awuah, R., Nnedu, O., Phillips, T., Wang, J.-S., Afriyie-Gyawu, E., Tang, L., Persom, S., Williams, J., Jolly, C., 2006: Determinants of aflatoxin levels in Ghanaians: sociode-mographic factors, knowledge of aflatoxin and food handling and consumption practices. International Journal of Hygiene and Environmental Health 209, 345–358
- 458. Abulu, E.O., Uriah, N., Aigbefo, H.S., Oboh, P.A., Agbonlahor, D.E., 1998: Preliminary investigation on aflatoxin in cord blood of jaundiced neonates. West African Journal of Medicine 17, 184–187
- 459. Matsumura, M., Mori, T., 1998: Detection of aflatoxins in autopsied materials from a patient infected with *Aspergillus flavus*. Nippon Ishinkin Gakkai Zasshi 39, 167–171
- 460. Denning, D.W., Quiepo, S.C., Altman, D.G., Makarananda, K., Neal, G.E., Camallerre, E.L., Morgan, M.R.A., Tupasi, T.E., 1995: Aflatoxin and outcome from acute lower respiratory infection in children in The Phillippines. Annals of Tropical Peadiatrics 15, 209–216
- 461. Ankrah, N.A., Rikimaru, T., Ekuban, F.A., 1994: Observations on aflatoxins and the liver status of Ghanaian subjects. East African Medical Journal 71, 739–741
- 462. Liu, Z.-H., Tu, W.-S., Li, D.-R.O, Li, Y.-D., Xie, C.-H., Yang, Y.Z., Qin, B.-B., 1990: A new method for the quantitation of aflatoxin M₁ in urine by high performance liquid chromatography and its application to the etiologic study of hepatoma. Biomedical Chromatography 4, 83–86

463. Chelule, P.K., Gqaleni, N., Chuturgoon, A.A., Dutton, M.F., 2000: The determination of fumonisin B, in human faeces: a short term marker for assessment of exposure. Biomarkers 5, 1–8

- 464. Castegnaro, M., Maru, V., Petkova-Bocharova, T., Nikolov, I., Bartsch, H., 1991: Concentrations of ochratoxin A in the urine of endemic nephropathy patients and controls in Bulgaria: lack of detection of 4-hydroxyochratoxin A. In: Castegnaro, R., Dirheimer, G., Chernozemsky, I.N., Bartsch, H. (eds). Mycotoxins, Endemic Nephropathy and Urinary Tract Tumours. Lyon, International Agency for Research on Cancer, IARC, pp.165–169
- 465. Cusumano, V., 1991: Aflatoxins in sera from patients with lung cancer. Oncology 48, 194-195
- 466. de Vries, H.R., Lamplugh, S.M., 1989: Aflatoxins in liver biopsies from Kenya. Tropical and Geographical Medicine 41, 26–30
- 467. Abdulrazzaq, Y.M., Osman, N., Ibrahim, A., 2002: Fetal exposure to aflatoxins in the United Arab Emirates. Annals of Tropical Paediatrics 22, 3–9
- 468. Dinis, A.M.P., Lino, C.M., Pena, A.S., 2007: Ochratoxin A in nephropathic patients from two cities of central zone in Portugal. Pharmaceutical and Biomedical Analysis 44, 553–557
- 469. Dänicke, S., Ueberschär, K.-H., Valenta, H., Matthes, S., Matthäus, K., Halle, I., 2004: Effects of graded levels of *Fusarium*-toxin-contaminated wheat in Pekin duck diets on performance, health and metabolism of deoxynivalenol and zearalenone. British Poultry Science 45, 264–272
- 470. Iavicoli, I., Brera, C., Carelli, G., Caputi, R., Marinaccio, A., Miraglia, M., 2002: External and internal dose in subjects occupationally exposed to ochratoxin A. International Archives of Occupational and Environmental Health 75, 381–386
- 471. Newman, S.J., Smith, J.R., Stenske, K.A., Newman, L.B., Dunlap, J.R., Imerman, P.M., Kirk, C.A., 2007: Aflatoxicosis in nine dogs after exposure to contaminated commercial dog food. Journal of Veterinary Diagnostic Investigation 19, 168–175
- 472. Fazekas, B., Tar, A., Kovács, M., 2005: Ochratoxin A content of urine samples of healthy humans in Hungary. Acta Veterinaria Hungarica 53, 35–44
- 473. Biró, K., Solti, L., Barna-Vetró, I., Bagó, G., Glávits, R., Szabó, E., Fink-Gremmels, J., 2002: Tissue distribution of ochratoxin A as determined by HPLC and ELISA and histopathological effects in chickens. Avian Pathology 31, 141–148
- 474. Poapolathep, A., Poapolathep, S., Sugita-Konishi, Y., Imsilp, K., Tassanawat, T., Sinthusing, C., Itoh, Y., Kumagai, S., 2008: Fate of fusarenon-X in broilers and ducks. Poultry Science 87, 1510–1515
- 475. Schneweis, I., Meyer, K., Ritzmann, M., Hoffmann, P., Dempfle, L., Bauer, J., 2005: Influence of organically or conventionally produced wheat on health, performance and mycotoxin residues in tissues and bile of growing pigs. Archives of Animal Nutrition 59, 155–163
- 476. Battacone, G., Nudda, A., Cannas, A., Cappio Borlino, A, Bomboi, G., Pulina, G., 2003: Excretion of aflatoxin M₁ in milk of dairy ewes treated with different doses of aflatoxin B₁. Journal of Dairy Science 86, 2667–2675
- 477. Battacone, G., Nudda, A., Palomba, M., Pascale, M., Nicolussi, P., Pulina, G., 2005: Transfer of aflatoxin B₁ from feed to milk and from milk to curd and whey in dairy sheep fed artificially contaminated concentrates. Journal of Dairy Science 88, 3063–3069
- 478. Boudra, H., Barnouin, J., Dragacci, S., Morgavi, D.P., 2007: Aflatoxin M_1 and ochratoxin A in raw bulk milk from French dairy herds. Journal of Dairy Science 90, 3197–3201
- 479. Tajkarimi, M., Shojaee Aliabadi, F., Salah Nejad, M., Pursoltani, H., Motallebi, A.A., Mahdavi, H., 2007: Seasonal study of aflatoxin M₁ contamination in milk in five regions in Iran. International Journal of Food Microbiology 116, 346–349
- 480. Tardieu, D., Bailly, J.-D., Skiba, F., Grosjean, F., Guerre, P., 2008: Toxicokinetics of fumonisin B₁ in turkey poults and tissue persistence after exposure to a diet containing the maximum European tolerance for fumonisins in avian feeds. Food and Chemical Toxicology 46, 3213–3218
- 481. Polychronaki, N., Wild, C.P., Mykkänen, H., Amra, H., Abdel-Wahhab, M., Sylla, A., Diallo, M., El-Nezami, H., Turner, P.C., 2008: Urinary biomarkers of aflatoxin exposure in young children from Egypt and Guinea. Food and Chemical Toxicology 46, 519–526

482. Blank, R., Rolfs, J.-P., Südekum, K.-H., Frohlich, A.A., Marquadt, R.R., Wolffram, S., 2003: Effects of chronic ingestion of ochratoxin A on blood levels and excretion of the mycotoxin in sheep. Journal of Agricultural and Food Chemistry 51, 6899–6905

- 483. Döll, S., Dänicke, S, Valenta, H., 2008: Residues of deoxynivalenol (DON) in pig tissue after feeding mash or pellet diets containing low concentrations. Molecular Nutrition & Food Research 52, 727–734
- 484. Dänicke, S., Valenta, H., Klobasa, F., Döll, S., Ganter, M., Flachowsky, G., 2004: Effects of graded levels of *Fusarium* toxin contaminated wheat in diets for fattening pigs on growth performance, nutrient digestibility, deoxynivalenol balance and clinical serum characteristics. Archives of Animal Nutrition 58, 1–17
- 485. Ahsan, H., Wang, L.-Y., Chen, C.-J., Tsai, W.-Y., Santella, R.M., 2001: Variability in aflatoxin-albumin adduct levels and effects of hepatitis B and C Virus infection and glutathione S-transferase *M1* and *T1* genotype. Environmental Health Perspectives 109, 833–837
- 486. Chen, S.-Y., Chen, C.-J., Chou, S.-R., Hsieh, L.-L., Wang, L.-Y., Tsai, W.-Y., Ahsan, H., Santella, R.M., 2001: Association of aflatoxin B₁-albumin adduct levels with hepatitis B surface antigen status among adolescents in Taiwan. Cancer Epidemiology, Biomarkers & Prevention 10, 1223–1226
- 487. Yagen, B., Bialer, B., Sintov, A., 1985: Gas chromatographic assay with pharmacokinetic applications for monitoring T-2 and HT-2 toxins in plasma. Journal of Chromatography 343, 67–75
- 488. Gong, Y., Hounsa, A., Egal, S., Turner, P.C., Sutcliffe, A.E., Hall, A.J., Cardwell, K., Wild, C.P., 2004: Postweaning exposure to aflatoxin results in impaired child growth: a longitudinal study in Benin, West Aftrica. Environmental Health Perspectives 112, 1334–1338
- 489. Campbell, T.C., Hayes, J.R., Newberne, P.M., 1978: Dietary lipotropes, hepatic microsomal mixed-function oxidase activities, and *in vivo* covalent binding of aflatoxin B₁ in rats. Cancer Research 38, 4569–4573
- 490. Schrager, T.F., Newberne, P.M., Pikul, A.H., Groopman, J.D., 1990: Aflatoxin-DNA adduct formation in chronically dosed rats fed a choline-deficient diet. Carcinogenesis 11, 177–180
- 491. Micco, C., Miraglia, M., Onori, R., Libanori, A., Brera, C., Mantovani, A.L., Macrì, C., 1991: Effects of combined exposure to ochratoxin A and penicillic acid on residues and toxicity in broilers. La Revista della Società Italiana di Scienza dell'Alimentazione 20, 101–108
- 492. Qin, G., Gopalan-Kriczky, P., Su, J., Ning, Y., Lotlikar, P.D., 1997: Inhibition of aflatoxin B₁-induced initiation of hepatocarcinogenesis in the rat by green tea. Cancer Letters 112, 149–154
- 493. Tang, L., Guan, H, Ding, X., Wang, J.-S., 2007: Modulation of aflatoxin toxicity and biomarkers by lycopene in F344 rats. Toxicology and Applied Pharmacology 219, 10–17
- 494. Pestka, J.J., Islam, Z., Amuzie, C.J., 2008: Immunochemical assessment of deoxynivalenol tissue distribution following oral exposure in the mouse. Toxicology Letters 178, 83–87
- 495. Egner, P.A., Wang, J.-B., Zhu, Y.-R., Zhang, B.-C., Wu, Y., Zhang, Q.-N., Qian, G.-S., Kuang, S.-Y., Gange, S. J., Jacobson, L.P., Helzsouer, K.J., Bailey, G.S., Groopman, J.D., Kensler, T.W., 2001: Chlorophyllin intervention reduces aflatoxin-DNA adducts in individuals at high risk for liver cancer. Proceedings of the National Academy of Science 98, 14601–14606
- 496. Guan, R., Oon, C.J., Wild, C., Motesano, R., 1986: A preliminary survey on aflatoxin exposure in Singapore. Annals Academy of Medicine 15, 201–205
- 497. Mirocha, C.J., Pawlosky, R.J., Chatterjee, K., 1984: Analytical methodology, detection of trichothecenes from Southeast Asia samples and their residues in animal tissue. Archives Belges Supplement, 210–218
- 498. Heyndrickx, A., Sookvanichsilp, N., van den Heede, M., 1984: Detection of trichothecene mycotoxins (Yellow Rain) in blood, urine and faeces of Iranian soldiers treated as victims of a gas attack. Archives Belges Supplement, 143–146
- 499. Pang, V.F., Swanson, S.P., Beasley, V.R., Buck, W.B., Haschek, W.M., 1987: The toxicity of T-2 toxin in swine following topical application. I. Clinical signs, pathology, and residue concentrations. Fundamental and Applied Toxicology 9, 41–49

500. Naudé, T.W., O'Brien, O.M., Rundberget, T., Mc Gregor, A.D.G., Roux, C., Flåøyen, A., 2002: Tremorgenic neuromycotoxicosis in 2 dogs ascribed to the ingestion of penitrem A and possibly roquefortine in rice contaminated with *Penicillium crustosum*. Journal of the South African Veterinary Association 73, 211–215

- 501. Hedman, R., Pettersson, H., Lindberg, J.E., 1997: Absorption and metabolism of nivalenol in pigs. Archives of Animal Nutrition 50, 13–24
- 502. Pacin, A.M., Ciancio Bovier, E.V., Motta, E., Resnik, S.L., Villa, D., Olsen, M., 2008: Survey of Argentinean human plasma for ochratoxin A. Food Additives and Contaminants 25, 635–641
- 503. Turner, P.C., Loffredo, C., El Kafrawy, S., Ezzat, S., Abdel Latif Eissa, S., El Daly, M., Nada, O., Abdel-Hamid, M., 2008: Pilot survey of aflatoxin-albumin adducts in sera from Egypt. Food Additives and Contaminants 25, 583–587
- 504. Muňoz, K., Vega, M., Rios, G., Muňoz, S., Madariaga, R., 2006: Preliminary study of ochratoxin A in human plasma in agricultural zones of Chile and its relation to food consumption. Food and Chemical Toxicology 44, 1884–1889
- 505. Pena, A., Seifrtová, M., Lino, C., Silveira, I., Solich, P., 2006: Estimation of ochratoxin A in Portuguese population: new data on the occurrence in human urine by high performance liquid chromatography with fluorescence detection. Food and Chemical Toxicology 44, 1449–1454
- 506. Thuvander, A., Paulsen, J.E., Axberg, K., Johannson, N., Vidnes, A., Enghardt-Barbieri, H., Trygg, K., Lund-Larsen, K., Jahrl, S., Widenfalk, A., Bosnes, V., Alexander, J., Hult, K., Olsen, M., 2001: Levels of ochratoxin A in blood from Norwegian and Swedish blood donors and their possible correlation with food consumption. Food and Chemical Toxicology 39, 1145–1151 (and personal communication)
- 507. Lino, C.M., Baeta, M.L., Henri, M., Dinis, A.M.P., Pena, A.S., Silveira, M.I.N., 2008: Levels of ochratoxin A in serum from urban and rural Portuguese populations and estimation of exposure degree. Food and Chemical Toxicology 46, 879–885
- 508. Commission of the European Communities, 2002. Reports on tasks for scientific cooperation. Report of experts participating in task 3.2.7: assessment of dietary intake of ochratoxin A by the population in EU member states
- 509. Aoudia, N., Tangni, E.K., Larondelle, Y., 2008: Distribution of ochratoxin A in plasma and tissues of rat fed a naturally contaminated diet amended with micronized wheat fibres: effectiveness of mycotoxin sequestering activity. Food Chemical Toxicology 46, 871–878
- 510. Gong, Y.Y., Torres-Sanchez, L., Lopez-Carillo, L., He Peng, J., Sutcliffe, A.E., White, K.L., Humpf, H.-U., Turner, P.C., Wild, C.P., 2008: Association between tortilla consumption and human urinary fumonisin B₁ levels in a Mexican population. Cancer Epidemiology, Biomarkers & Prevention 17, 688–694
- 511. Monroe, D.H., Eaton, D.L., 1988: Effects of modulation of hepatic glutathione on biotransformation and covalent binding of aflatoxin B₁ to DNA in the mouse. Toxicology and Applied Pharmacology 94, 118–127
- 512. Coppock, R.W., Swanson, S.P., Gelberg, H.B., Koritz, G.D., Buck, W.B., Hoffmann, W.E., 1987: Pharmacokinetics of diacetoxyscirpenol in cattle and swine: effects of halothane. American Journal of Veterinary Research 48, 691–695
- 513. Pascale, M., Visconti, A., 2000: Rapid method for the determination of ochratoxin A in urine by immunoaffinity column clean-up and high-performance liquid chromatography. Mycopathologia 152, 91–95
- 514. Elgerbi, A.M., Aidoo, K.E., Candlish, A.A.G., Tester, R.F., 2004: Occurrence of aflatoxin $\rm M_1$ in randomly selected North African milk and cheese samples. Food Additives and Contaminants 21, 592–597
- 515. Micco, C., Miraglia, M., Benelli, L., Onori, R., Ioppolo, A., Mantovani, A.L., 1988: Long term administration of low doses of mycotoxins in poultry. 2. Residues of ochratoxin A and aflatoxins in broilers and laying hens after combined administration of ochratoxin A and aflatoxin B,. Food Additives and Contaminants 5, 309–314
- 516. Plakas, S.M., Loveland, P.M., Bailey, G.S., Blazer, V.S., Wilson, G.L., 1991: Tissue disposition and excretion of $^{14}\mathrm{C}$ -labelled aflatoxin B $_1$ after oral administration in channel catfish. Food and Chemical Toxicology 29, 805–808

517. Wang, J.-S., Abubaker, S., He, X., Sun, G., Strickland, P.T., Groopman, J.D., 2001: Development of aflatoxin B₁-lysine adduct monoclonal antibody for human exposure studies. Applied and Environmental Microbiology 67, 2712–2717

- 518. Kamkar, A., 2005: A study on the occurrence of aflatoxin M_1 in raw milk produced in Sarab City of Iran. Food Control 16, 593–599
- 519. Honstead, J.P., Dreesen, D.W., Stubblefield, R.D., Shotwell, O.L., 1992: Aflatoxins in swine tissues during drought conditions: an epidemiologic study. Journal of Food Protection 55, 182–186
- 520. Benedetti, S., Iametti, S., Bonomi, F., Mannino, S., 2005: Head space sensor array for the detection of aflatoxin M, in raw ewe's milk. Journal of Food Protection 68, 1089–1092
- 521. Onyemelukwe, C.G., Nirodi, C., West, C.E., 1980: Aflatoxin $\rm B_1$ in hepatocellular carcinoma. Tropical and Geographical Medicine 32, 237–240
- 522. Sarr, A.B., Mayura, K., Kubena, L.F., Harvey, R.B., Phillips, T.D., 1995: Effects of phyllosilicate clay on the metabolic profile of aflatoxin $\rm B_1$ in Fischer-344 rats. Toxicology Letters 75, 145–151
- 523. Ruprich, J., Ostrý, V., 1993: Health risk assessment of the mycotoxin ochratoxin A to humans: Czech Republic Brno 1991/1992. Central European Journal of Public Health 2, 86–93
- 524. Hanna, G.D., Phillips, T.D., Kubena, L.F., Cysewski, S.J., Ivie, G.W., Heidelbaugh, N.D., Witzel, D.A., Hayes, A.W., 1981: High pressure liquid chromatographic determination of penicillic acid in chicken tissues. Poultry Science 60, 2246–2252
- 525. Prior, M.G., Sisodia, C.S., 1978: Ochratoxicosis in White Leghorn hens. Poultry Science 57, 619-623
- 526. Meyer, K., Usleber, E., Märtlbauer, E., Bauer, J., 1997: Analysis of zearalenone-metabolites in bile of gilts with reproductive problems. Berliner und Münchener Tierärztliche Wochenschrift 110, 281–283
- 527. Canela, R., Viladrich, R., Velazquez, C.A., Sanchis, V., 1994: A survey of porcine kidneys and chicken liver for ochratoxin A in Spain. Mycopathologia 125, 29–32
- 528. MacDougald, O.A., Thulin, A.J., Pestka, J.J., 1990: Determination of zearalenone and related metabolites in porcine urine by modified enzyme-linked immunosorbent assay. Journal of the Association of Official Analytical Chemists 73, 65–68
- 529. Kennedy, D.G., McEvoy, J.D.G., Blanchflower, W.J., Hewitt, S.A., Cannavan, A., McCaughey, W.J., Elliott, C.T., 1995: Possible naturally occurring zeranol in bovine bile in Northern Ireland. Journal of Veterinary Medicine Series B 42, 509–512
- 530. Dänicke, S., Goyarts, T., Valenta, H., Razzazi, E., Böhm, J., 2004: On the effects of deoxynivalenol (DON) in pig feed on growth performance, nutrients utilization and DON metabolism. Journal of Animal and Feed Science 13, 539–556
- 531. Golínski, P., Chelkowski, J., Konarkowski, A., Szebiotko, K., 1983: Mycotoxins in cereal grain. Part VI. The effect of ochratoxin A on growth and tissue residues of the mycotoxin in broiler chickens. Nahrung, 27, 251–256
- 532. Velasco, M.L.R., Delso, M.M.C., Escudero, D.O., 2003: ELISA and HPLC determination of the occurrence of aflatoxin M, in raw cow's milk. Food Additives and Contaminants 20, 276–280
- 533. Polychronaki, N., West, R.M., Turner, P.C., Amra, H., Abdel-Wahab, M., Mykkänen, H., El-Nezami, H., 2007: A longitudinal assessment of aflatoxin $\rm M_1$ excretion in breast milk of selected Egyptian mothers. Food and Chemical Toxicology 45, 1210–1215
- 534. Amuzie, C.J., Harkema, J.R., Pestka, J.J., 2008: Tissue distribution and proinflammatory cytokine induction by the trichothecene deoxynivalenol in the mouse: comparison of nasal vs. oral exposure. Toxicology 248, 39–44
- 535. Shephard, G.S., Thiel, P.G., Sydenham, E.W., Alberts, J.F., Cawood, M.E., 1994: Distribution and excretion of a single dose of the mycotoxin fumonisin B₁ in a non-human primate. Toxicon 32, 735–741
- 536. Breinholt, V., Hendricks, J., Pereira, C., Arbogast, D., Bailey, G., 1995: Dietary chlorophyllin is a potent inhibitor of aflatoxin B₁ hepatocarcinogenesis in rainbow trout. Cancer Research 55, 57–62

537. Dänicke, S., Brüssow, K.-P., Valenta, H, Ueberschär, K.-H., Tiemann, U., Schollenberger, M., 2005: On the effects of graded levels of *Fusarium* toxin contaminated wheat in diets for gilts on feed intake, growth performance and metabolism of deoxynivalenol and zearalenone. Molecular Nutrition & Food Research 49, 932–943

- 538. Petkova-Bocharova, T., Castegnaro, M., Pfohl-Leszkowicz, A., Garren, L., Grosso, F., Nikolov, I., Vrabcheva, T., Dragacci, S., Chernozemsky, I.N., 2003: Analysis of ochratoxin A in serum and urine of inhabitants from an area with Balkan endemic nephropathy: a one month follow up study. Facta Universitas Series: Medicine and Biology 10, 62–68
- 539. Hussain, I., Anwar, J., 2008: A study on contamination of aflatoxin M_1 in raw milk in the Punjab province of Pakistan. Food Control 19, 393–395
- 540. Jonsyn, F.E., 1999: Intake of aflatoxins and ochratoxins by infants in Sierra Leone: possible effects on the general health of these children. Journal of Nutrition and Environmental Medicine 9, 15–22
- 541. Turner, P.C., Sylla, A., Gong, Y.Y., Diallo, M.S., Sutcliffe, A.E., Hall, A.J., Wild, C.P., 2005: Reduction in exposure to carcinogenic aflatoxins by postharvest intervention measures in West Africa: a community-based intervention study. Lancet 365, 1950–1956
- 542. Burdaspal, P.A., Legarda, T.M., 1998: Datos sorbe la presencia de ocratoxina A en plasma humano en España. Alimentaria 292, 103–109 [Spanish]
- 543. Dänicke, S., Ueberschär, K.-H., Halle, I., Valenta, H., Flachowsky, G., 2001: Excretion kinetics and metabolism of zearalenone in broilers in dependence on a detoxifying agent. Archives of Animal Nutrition 55, 299–313
- 544. Aslam, M., Beg, A.E., Blaskewicz, M., Degen, G.H., Golka, K., 2005: Ochratoxin A blood concentration in healthy subjects and bladder cancer cases from Pakistan. Abstract, 27th Mycotoxin-Workshop, 13–15 June 2005, Dortmund, Germany
- 545. Ngindu, A., Kenya, P.R., Ocheng, D.M., Omondi, T.N., Ngare, W., Gatei, D., Johnson, B.K., Ngira, J.A., Nandwa, H., Jansen, A.J., Kaviti, J.N., Arap Siongok, T., 1982: Outbreak of acute hepatitis caused by aflatoxin poisoning in Kenya. Lancet 12, 1346–1348
- 546. Breinholt, V., Arbogast, D., Loveland, P., Pereira, C., Dashwood, R., Hendricks, J., Bailey, G., 1999: Chlorophyllin chemoprevention in trout initiated by aflatoxin B₁ bath treatment: an evaluation of reduced bioavailability vs. target organ protective mechanisms. Toxicology and Applied Pharmacology 158, 141–151
- 547. Gemechu-Hatewu, M., Platt, K.-L., Oesch, F., Hacker, H.-J., Bannasch, P., Steinberg, P., 1997: Metabolic activation of aflatoxin B₁ to aflatoxin B₁-8,9-epoxide in woodchucks undergoing chronic active hepatitis. International Journal of Cancer 73, 587–591
- 548. Prasanna, H.R., Lu, M.H., Beland, F.A., Hart, R.W., 1989: Inhibition of aflatoxin B₁ binding to hepatic DNA by dehydroepiandrosterone *in vivo*. Carcinogenesis 10, 2197–2200
- 549. Gradelet, S., Le Bon, A.-M., Suschetet, M., Astorg, P., 1998: Dietary carotenoids inhibit aflatoxin B₁-induced liver preneoplastic foci and DNA damage in rat: role of the modulation of aflatoxin B₁ metabolism. Carcinogenesis 19, 403–411
- 550. Salbe, A.D., Bjeldanes, L.F., 1989: Effect of diet and route of administration on the DNA binding of aflatoxin B, in the rat. Carcinogenesis 10, 629–634
- 551. Kensler, T.W., Egner, P.A., Davidson, N.E., Roebuck, B.D., Pikul, A., Groopman, J.D., 1986: Modulation of aflatoxin metabolism, aflatoxin-N⁻-guanine formation, and hepatic tumorigenesis in rats fed ethoxyquin: role of induction of glutathione S-transferase. Cancer Research 46, 3924–3931
- 552. Lotlikar, P.D., Raj, H.G., Bohm, L.S., Ho, L.L., Jhee, E.-C., Tsujii, K., Gopalan, P., 1989: A mechanism of inhibition of aflatoxin B₁-DNA binding in the liver by phenobarbital pretreatment of rats. Cancer Research 49, 951–957
- 553. Gresham, A., Done, S., Livesey, C., MacDonald, S., Chan, D., Sayers, R., Clark, C., Kemp, P., 2006: Survey of pigs' kidneys with lesions consistent with PMWS and PDNS and ochratoxicosis. Part 1: concentrations and prevalence of ochratoxin A. Veterinary Record 159, 737–742
- 554. Turner, P.C., Sylla, A., Kuang, S.-Y., Marchant, C.L., Diallo, M.S., Hall, A.J., Groopman, J.D., Wild, C.P., 2005: Absence of *TP53* codon 249 mutations in young Guinean children with high aflatoxin exposure. Cancer Epidemiology, Biomarkers & Prevention 14, 2053–2055

555. Boudra, H., Morgavi, D.P., 2006: Development and validation of a HPLC method for the quantitation of ochratoxins in plasma and raw milk. Journal of Chromatography B 843, 295–301

- 556. Gopalan-Kriczky, P., Hiruma, S., Lotlikar, P.D., 1994: Effect of glutathione levels on aflatoxin B₁-DNA binding in livers and kidneys of male rats and hamsters pretreated with buthionine sulfoximine and diethylmaleate. Cancer Letters 76, 25–30
- 557. Norred, W.P., Porter, J.K., Dorner, J.W., Cole, R.J., 1988: Occurrence of the mycotoxin cyclopiazonic acid in meat after oral administration to chickens. Journal of Agricultural and Food Chemistry 36, 113–116
- 558. Takahashi, N., Harttig, U., Williams, D.E., Bailey, G.S., 1996: The model Ah-receptor agonist β-naphthoflavone inhibts aflatoxin B₁-DNA binding *in vivo* in rainbow trout at dietary levels that do not induce CYP1A enzymes. Carcinogenesis 17, 79–87
- 559. Autrup, J.L., Schmidt, J., Seremet, T., Autrup, H., 1991: Determination of exposure to aflatoxins among Danish workers in animal-feed production through the analysis of aflatoxin B₁ adducts to serum albumin. Scandinavian Journal of Work, Environment & Health 17, 436–440
- 560. Dashwood, R.H., Breinholt, V., Bailey, G.S., 1991: Chemopreventive properties of chlorophyllin: inhibition of aflatoxin B₁ (AFB₁)-DNA binding *in vivo* and anti-mutagenic activity against AFB₁ and two heterocyclic amines in the *Salmonella* mutagenicity assay. Carcinogenesis 12, 939–942
- 561. Schwerdt, G., Bauer, K., Gekle, M., Silbernagl, S., 1996: Accumulation of ochratoxin A in rat kidney *in vivo* and in cultivated renal epithelial cells *in vitro*. Toxicology 114, 177–185
- 562. Srivatanakul, P., Parkin, D.M., Jiang, Y.-Z., Khlat, M., Kao-Ian, U.-T., Sontipong, S., Wild, C., 1991: The role of infection by *Opisthorchis viverrini*, hepatitis B virus, and aflatoxin exposure in the etiology of liver cancer in Thailand. Cancer 68, 2411–2417
- 563. Mandel, H.G., Manson, M.M., Judah, D.J., Simpson, J.L., Green, J.A., Forrester, L.M., Wolf, C.R., Neal, G.E., 1987: Metabolic basis for the protective effect of the antioxidant ethoxyquin on aflatoxin B, hepatocarcinogenesis in the rat. Cancer Research 47, 5218–5223
- 564. Sylla, A., Diallo, M.S., Castegnaro, J.-J., Wild, C.P., 1999: Interactions between hepatitis B virus infection and exposure to aflatoxins in the development of hepatocellular carcinoma: a molecular epidemiological approach. Mutation Research 428, 187–196
- 565. Stresser, D.M., Williams, D.E., McLellan, L.I., Harris, T.M., Bailey, G.S., 1994: Indole-3-carbinol induces a rat liver glutathione transferase subunit (Yc2) with high activity toward aflatoxin B, *exo*-epoxide. Drug Metabolism and Disposition 22, 392–399
- 566. Krogh, P., Elling, F., Hald, B., Jylling, B, Petersen, V.E., Skadiiauge, E., Svendsen, C.K., 1975: Experimental avian nephrophathy. Changes of renal function and structure induced by ochratoxin A-contaminated feed. Acta Pathologica et Microbiologica Scandinavica, Section A 84, 215–221
- 567. Veldman, A., 1992: Effect of sorbentia on carry-over of aflatoxin from cow feed to milk. Milchwissenschaft 47, 777–780
- 568. Fuchs, R., Radić, B., Čeović, S., Šoštarić, B., Hult, K., 1991: Human exposure to ochratoxin A. IARC Scientific Publications 115, 131–135
- 569. Nyathi, C.B., Mutiro, C.F., Hasler, J.A., Chetsanga, C.J., 1989: Human exposure to aflatoxins in Zimbabwe. Central African Journal of Medicine 35, 542–545
- 570. Richir, C.L., Paccalin, J., Larcebeau, S., Faugeres, J., Morard, J.-L., Lamant, M., 1979: Presence d'aflatoxine B, dans le foie humain. Cahiers de Nutrition et de Diététique 11, 223–226
- 571. Yu, M.-W., Lien, J.-P., Liaw, Y.-F., Chen, C.-J., 1996: Effects of multiple risk factors for hepatocellular carcinoma on formation of aflatoxin B₁-DNA adducts. Cancer Epidemiology, Biomarkers & Prevention 5, 613–619
- 572. Byrem, T.M., Pestka, J.J., Chu, F.S., Strasburg, G.M., 1999: Analysis and pharmacokinetics of cyclopiazonic acid in market weight pigs. Journal of Animal Science 77, 173–179
- 573. Petkova-Bocharova, T., Castegnaro, M., 1991: Ochratoxin A in human blood in relation to Balkan endemic nephropathy and urinary tract tumours in Bulgaria. In: Mycotoxins, Endemic Nephropathy and Urinary Tract Tumours. Ed. Castegnaro, M., Dirheimer, G., Chemozemsky, I.N., Bartsch, H. Lyon, International Agency for Research on Cancer, pp. 135–137, IARC, 1991

574. Bintvihok, A., Kositcharoenkul, S., 2006: Effect of dietary calcium propionate on performance, hepatic enzyme activities and aflatoxin residues in broilers fed a diet containing low levels of aflatoxin B,. Toxicon 47, 41–46

- 575. Megalla, S.E., Kamel, Y.Y., Abdel-Fattah, H.M., Hafez, A.H., 1981: Determining the kinetic behaviour for the secretion of milk toxin as related to dosage level of aflatoxin B₁. Zeitschrift für Ernährungswissenschaften 20, 216–222
- 576. Tangni, E.K., Waegeneers, N., van Overmeire, I., Goeyens, L., Pussemier, L., 2009: Mycotoxin analyses in some home produced eggs in Belgium reveal small contribution to the total intake. Science of the Total Environment 407, 4411–4418
- 577. Bintvihok, A., Davitiyananda, D., Kositcharoenkul, S., Panichkriangkrai, W., Jamratchai, O., 1998: Residues of aflatoxins and their metabolites in chicken tissues in Thailand. Journal of Toxicological Science 23 (Suppl. II), 389
- 578. Hirano, K., Adachi, Y., Ishibashi, S., Sueyoshi, M., Bintvihok, A., Kumazawa, N.H., 1991: Detection of aflatoxin B₁ in plasma of fowl receiving feed naturally contaminated with aflatoxin B₂. Journal of Veterinary Medical Science 53, 1083–1085
- 579. Shin, B.S., Hong, S.H., Hwang, S.W., Kim, H.J., Lee, J.B., Yoon, H.-S., Kim, D.J., Yoo, S.D., 2009: Determination of zearalenone by liquid chromatography/tandem mass spectrometry and application to a pharmacokinetic study. Biomedical Chromatography 23, 1014–1021
- 580. Duarte, S.C., Bento, J.M.V., Pena, A., Lino, C.M., 2009: Ochratoxin A exposure assessment of the inhabitants of Lisbon during winter 2007/2008 through bread and urine analysis. Food Additives and Contaminants 26, 1411–1420
- 581. Stoev, S.D., Dutton, M.F., Njobeh, P.B., Mosonik, J.S., Steenkamp, P.A., 2010: Mycotoxic nephropathy in Bulgarian pigs and chickens: complex aetiology and similarity to Balkan Endemic Nephropathy. Food Additives and Contaminants 27, 72–88
- 582. Mizrak, D., Engin, B., Önder, F.O., Yener, B., Bektaş, M., Biyikili, Z., Idilman, R., Çinar, K., Karayalçin, K., Ersöz, S., Karayalçin, S., Özden, A., Yurdaydin, C., Yazihan, N., Ataoğlu, H., Bozkaya, H., Uzunalimoğlu, Ö., 2009: Aflatoxin exposure in viral hepatitis patients in Turkey. Turkish Journal of Gastroenterology 20, 192–197
- 583. Battacone, G., Nudda, A., Palomba, M., Mazette, A., Pulina, G., 2009: The transfer of aflatoxin M₁ in milk of ewes fed diet naturally contaminated by aflatoxins and effect of inclusion of dried yeast culture in the diet. Journal of Dairy Science 92, 4997–5004
- 584. Coronel, M.B., Sanchis, V., Ramos, A.J., Marin, S., 2009: Assessment of the exposure to ochratoxin A in the province of Lleida, Spain. Food and Chemical Toxicology 47, 2847–2852
- 585. Shin, B.S., Hong, S.H., Bulitta, J.B., Hwang, S.W., Kim, H.J., Lee, J.B., Yang, S.D., Kim, J.E., Yoon, H.-S., Kim, D.J., Yoo, S.D., 2009: Disposition, oral bioavailability, and tissue distribution of zearalenone in rats at various dose levels. Journal of Toxicology and Environmental Health Part A 72, 1406–1411
- 586. Eriksen, G.S., Hultin Jäderlund, K., Moldes-Anaya, A., Schönheit, J., Bernhoft, A., Jæger, G., Rundberget, T., Skaar, I., 2010: Poisoning of dogs with tremorgenic *Penicillium* toxins. Medical Mycology 48, 188–196
- 587. Layton, R.C., Purdy, C.W., Jumper, C.A., Straus, D.C., 2009: Detection of macrocyclic trichothecene mycotoxin in a caprine (goat) tracheal instillation model. Toxicology and Industrial Health 25, 693–701
- 588. Gürbay, A., Atasayar Sabuncuonğlu, S., Girgin, G., Şahin, G., Yiğit, Ş., Yurdakök, M, Tekinalp, G., 2010: Exposure of newbornes to aflatoxin M₁ and B₁ from mothers' breast milk in Ankara, Turkey. Food and Chemical Toxicology 48, 314–319
- 589. Alonso, V.A., Monge, M.P., Larriestra, A., Dalcero, A.M., Cavaglieri, L.R., Chiacchiera, S.M., 2010: Naturally occurring aflatoxin $\rm M_1$ in raw bulk milk from farm cooling tanks in Argentina. Food Additives and Contaminants 27, 373–379
- 590. Niemiec, J., Borzemska, W., Goliński, P., Karpińska, E., Szeleszuk, P., Celeda, T., 1994: The effect of ochratoxin A on egg quality, development of embryos and the level of toxin in eggs and tissues of hens and chicks. Journal of Animal and Feed Sciences 3, 309–316
- 591. Abdelhamid, A.M., Dorra, T.M., 1990: Study on the effects of feeding laying hens on separate mycotoxins (aflatoxins, patulin, or citrinin)-contaminated diets on the egg quality and tissue constituents. Archiv Tierernährung 40, 305–316

592. Abdel-Wahab, M., Mostafa, M., Sabry, M., El-Farrash, M., Yousef, T., 2008: Aflatoxins as a risk factor for hepatocellular carcinoma in Egypt, Mansoura Gastroenterology Center Study. Hepato-Gastroenterology 55, 1754–1759

- 593. Adekunle, A.A., 1980: A comparative study on the biliary excretion of aflatoxin B₁ in the albino Rat (*Rattus norvegicus*) and the African giant rat (*Cricetomys gambianus*, Waterhouse). Comparative Biochemistry and Physiology 66, 105–109
- 594. Allameh, A., Saxena, M., Raj, H.G., 1989: Interaction of aflatoxin B₁ metabolites with cellular macromolecules in neonatal rats receiving carcinogen through mother's milk. Carcinogenesis 10, 2131–2134
- 595. Arulmozhi, A., Varghese, K., Ismail, P.K., Peethambaran, P.A., Ramachandran, K.M., 2002: Aflatoxin residues in tissues of broiler chicken. Indian Veterinary Journal 79, 901–903
- 596. Bean, T.A., Yourtee, D.M., 1989: Aflatoxin metabolites in the urine of Nigerians comparison of chromatographic methods. Journal of Toxicology Toxin Reviews 8, 43–52
- 597. Beaver, R.W., Wilson, D.M., James, M.A., Haydon, K.D., Colvin, B.M., Sangster, L.T., Pikul, A.H., Groopman, J.D., 1990: Distribution of aflatoxins in tissues of growing pigs fed an aflatoxin-contaminated diet amended with a high affinity aluminosilicate sorbent. Veterinary and Human Toxicology 32, 16–18
- 598. Bennett, R.A., Essigmann, J.M., Wogan, G.N., 1981: Excretion of an aflatoxin-guanine adduct in the urine of aflatoxin B,-treated rat. Cancer Research 41,650–654
- 599. Kleinova, M., Zöllner, P., Kahlbacher, H., Hochsteiner, W., Lindner, W., 2002: Metabolic profiles of the mycotoxin zearalenone and of the growth promoter zeranol in urine, liver, and muscle of heifers. Journal of Agricultural and Food Chemistry 50, 4769–4776
- 600. Zöllner, P., Jodlbauer, J., Kleinova, M., Kahlbacher, H., Kuhn, T., Hochsteiner, W., Lindner, W., 2002: Concentration levels of zearalenone and its metabolites in urine, muscle tissue, and liver samples of pigs fed with mycotoxin-contaminated oats. Journal of Agricultural and Food Chemistry 50, 2494–2501
- 601. Niemiec, J., Scholtyssek, S., Bauer, J., 1988: Ochratoxin A in the broiler feed: effect on weight gain and residues in the tissues. Archiv für Geflügelkunde 52, 163–168
- 602. Buss, P., Caviezel, M., Lutz, W.K., 1990: Linear dose-response relationship for DNA adducts in rat liver from chronic exposure to aflatoxin B,. Carcinogenesis 11, 2133–2135
- 603. Chen, C.-J., Zhang, Y.-J., Lu, S.-N., Santella, R.M., 1992: Aflatoxin B₁ DNA adducts in smeared tumor tissue from patients with hepatocellular carcinoma. Hepatology 16, 1150–1155
- 604. Coulombe, R.A., Jr., Huie, J.M., Ball, W., Sharma, R.P., Wilson, D.W., 1991: Pharmacokinetics of intratracheally administered aflatoxin B₁. Toxico-logy and Applied Pharmacology 109, 196–206
- 605. Egner, P.A., Gange, S.J., Dolan, P.M., Groopman, J.D., Muňoz, A., Kensler, T.W., 1995: Levels of aflatoxin-albumin biomarkers in rat plasma are modulated by both long-term and transient interventions with oltipraz. Carcinogenesis 16, 1769–1773
- 606. Friend, D.W., Trenholm, H.L., Thompson, B.K., Prelusky, D.B., Hartin, K.H., 1986: Effect of deoxynivalenol (DON)-contaminated diet fed to growing-finishing pigs on their performance at market weight, nitrogen retention and DON excretion. Canadian Journal of Animal Science 66, 1075–1085
- 607. Gan, L.-S., Skipper, P.L., Peng, X., Groopman, J.D., Chen, J.-S., Wogan, G.N., Tannenbaum, S.R., 1988: Serum albumin adducts in the molecular epidemiology of aflatoxin carcinogenesis: correlation with aflatoxin B₁ intake and urinary excretion of aflatoxin M₁. Carcinogenesis 9, 1323–1325
- 608. Garner, R.C., Wright, C.M., 1975: Binding of [14 C]aflatoxin B $_1$ to cellular macromolecules in the rat and hamster. Chemico-Biological Interactions 11, 123–131
- 609. Gregory, J.F., III, Manley, D.B., 1982: High performance liquid chromatographic quantitation of aflatoxin metabolites in animal tissues. Journal of the Association of Official Analytical Chemists 65, 869–875
- 610. Groopman, J.D., Busby Jr, W.F., Wogan, G.N., 1980: Nuclear distribution of aflatoxin B₁ and its interaction with histones in rat liver *in vivo*. Cancer Research 40, 4343–4351

611. Groopman, J.D., DeMatos, P., Egner, P.A., Love-Hunt, A., Kensler, T.W., 1992: Molecular dosimetry of urinary aflatoxin-N⁷-guanine and serum aflatoxin-albumin adducts predicts chemoprotection by 1,2-dithiole-3-thione in rats. Carcinogenesis 13, 101–106

- 612. Jennings, G.S., Oesch, F., Steinberg, P., 1992: *In vivo* formation of aflatoxin B₁-DNA adducts in parenchymal and non-parenchymal cells of rat liver. Carcinogenesis 13, 831–835
- 613. Kumagai, S., 1985: Ochratoxin A: plasma concentration and excretion into bile and urine in albumin-deficient rats. Food and Chemical Toxicology 23, 941–943
- 614. Larsson, P., Tjälve, H., 1993: Distribution and metabolism of aflatoxin B₁ in the marmoset monkey (*Callithrix jacchus*). Carcinogenesis 14, 1–6
- 615. Loury, D.N., Hsieh, D.P.H., 1984: Effects of chronic exposure to aflatoxin B₁ and aflatoxin M₁ on the *in vivo* covalent binding of aflatoxin B₁ to hepatic macromolecules. Journal of Toxicology and Environmental Health 13, 575–587
- 616. Monroe, D.H., Eaton, D.L., 1987: Comparative effects of butylated hydroxyanisole on hepatic *in vivo* DNA binding and *in vitro* biotransformation of aflatoxin B₁ in the rat and mouse. Toxicology and Applied Pharmacology 90, 401–409
- 617. Obioha, W.I., Stahr, H.M., Kraft, A.A., 1986: Distribution and effects of aflatoxin in chicken tissues after feeding radiolabeled (14C) aflatoxin B₁. Journal of Food Protection 49, 799–805
- 618. Olubuyide, I.O., Makarananda, K., Judah, D.J., Neal, G.E., 1991: Investigation of the assay of AFB₁-albumin adducts using proteolysis products in ELISA. International Journal of Cancer 48, 468–472
- 619. Prelusky, D.B., Savard, M.E., Trenholm, H.L., 1995: Pilot study on the plasma pharmacokinetics of fumonisin $\rm B_1$ in cows following a single dose by oral gavage or intravenous administration. Natural Toxins 3, 389–394
- 620. Prelusky, D.B., Veira, D.M., Trenholm, H.L., 1985: Plasma pharmacokinetics of the mycotoxin deoxynivalenol following oral and intravenous administration to sheep. Journal of Environmental Science and Health B20, 603–624
- 621. Roebuck, B.D., Liu, Y.-L., Rogers, A.D., Groopman, J.D., Kensler, T.W., 1991: Protection against aflatoxin $\rm B_1$ -induced hepatocarcinogenesis in F344 rats by 5-(2-pyrazinyl)-4-methyl-1, 2-dithiole-3-thione (oltipraz): predictive role for short-term molecular dosimetry. Cancer Research 51, 5501–5506
- 622. Scholl, P.F., McCoy, L., Kenseler, T.W., Groopman, J.D., 2006: Quantitative analysis and chronic dosimetry of the aflatoxin B₁ plasma albumin adduct Lys-AFB₁ in rats by isotope dilution mass spectrometry. Chemical Research in Toxicology 19, 44–49
- 623. Shephard, G.S., Thiel, P.G., Sydenham, E.W., Alberts, J.F., 1994: Biliary excretion of the mycotoxin fumonisin B₁ in rats. Food and Chemical Toxicology 32, 489–491
- 624. Stresser, D.M., Bailey, G.S., Williams, D.E., 1994: Indole-3-carbinol and β-naphthoflavone induction of aflatoxin B₁ metabolism and cytochromes P-450 associated with bioactivation and detoxification of aflatoxin B₁ in the rat. Drug Metabolism and Disposition 22, 383–391
- 625. Toledo, C., Hendricks, J., Loveland, P., Wilcox, J., Bailey, G., 1987: Metabolism and DNA-binding in vivo of aflatoxin $\rm B_1$ in medaka (*Oryzias latipes*). Comparative Biochemistry and Physiology 87C, 275–281
- 626. Troxel, C.M., Reddy, A.P., O'Neal, P.E., Hendricks, J.D., Bailey, G.S., 1997: *In vivo* aflatoxin B₁ metabolism and hepatic DNA adduction in zebrafish (*Danio rerio*). Toxicology and Applied Pharmacology 143, 213–220
- 627. Turner, P.C., Dingley, K.H., Coxhead, J., Russell, S., Garner, C.R., 1998: Detectable levels of serum aflatoxin B₁-albumin adducts in the United Kingdom population: implications for aflatoxin-B₁ exposure in the United Kingdom. Cancer Epidemiology, Biomarkers & Prevention 7, 441–447
- 628. Valsta, L.M., Hendricks, J.D., Bailey, G.S., 1988: The significance of glutathione conjugation for aflatoxin B₁ metabolism in rainbow trout and coho salmon. Food and Chemical Toxicology 2, 129–135
- 629. Wild, C.P., Jiang, Y-Z., Sabbioni, G., Chapot, B., Montesano, R., 1990: Evaluation of methods for quantitation of aflatoxin-albumin adducts and their application to human exposure assessment. Cancer Research 50, 245–251

630. Zaghini, A., Martelli, G., Roncada, P., Simioli, M., Rizzi, L., 2005: Mannanoligosaccharides and aflatoxin B₁ in feed for laying hens: effects on egg quality, aflatoxin B₁ and M₁ residues in eggs, and aflatoxin B₁ levels in liver. Poultry Science 84, 825–832

- 631. Moldes-Anaya, A., Wilkins, A.L., Rundberget, T., Fæste, C.K., 2009: *In vitro* and *in vivo* hepatic metabolism of the fungal neurotoxin penitrem A. Drug and Chemical Toxicology 32, 26–37
- 632. Lásztity, R., Bata, Á., Palyusik, M., 1989: Investigation of the distribution of zearalenone and its metabolites in the pig fed with feed contaminated by zearalenone. Periodica Polytechnica-Chemical Engineering 33, 203–209
- 633. Zomborszky-Kovács, M., Vetési, F., Kovács, F., Bata, A., Tóth, Á., Tornyos, G., 2000: Preliminary communication: examination of the harmful effect to fetuses of fumonisin B₁ in pregnant sows. Teratogenesis, Carcinogenesis, and Mutagenesis 20, 293–299
- 634. Quist, C.F., Howerth, E.W., Fischer, J.R., Wyatt, R.D., Miller, D.M., Nettles, V.F., 1997: Evaluation of low-level aflatoxin in the diet of white-tailed deer. Journal of Wildlife Diseases 33, 112–121
- 635. Duca, R.C., Bravin, F., Delaforge, M., Vladescu, L., Badea, I.A., Criste, R.D., 2009: Development of a new HPLC method used for determination of zearalenone and its metabolites in broiler samples. Influence of zearalenone on the nutritional properties of broiler meat. Journal of Agricultural and Food Chemistry 57, 10497–10504
- 636. Gürbay, A., Girgin, G., Atasayar Sabuncuoğlu, S., Sahin, G., Yurdakök, M., Yiğit, Ş, Tekinalp, G., 2010: Ochratoxin A: is it present in breast milk samples obtained from mothers from Ankara, Turkey? Journal of Applied Toxicology 30, 329–333