



# **Artificial Insemination**

## **Level-II**

# **Learning Guide -**

**Unit of Competence: Comply with Industry Dairy Welfare and Quality Requirements in Livestock Production Problems**

**Module Title: Complying with Industry Dairy Welfare and Quality Requirements in Livestock Production Problem**



# **Learning Guide - 40**

**Unit of Competence: Comply with Industry Dairy Welfare and Quality Requirements in Livestock Production Problems**

**Module Title: Complying with Industry Dairy Welfare and Quality Requirements in Livestock Production Problems**

**MODULE CODE: AGR ATI2 11 0919 LO1- 40**

**TTLM Code: AGR ATI2 TTLM 0919V1**

**LO1- Apply dairy welfare and quality product practices**



## Instruction Sheet one

## LEARNING GUIDE-40

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics

- ✓ Apply dairy welfare and quality product practices
  - Determining element of the industry dairy welfare and quality product requirements.
    - Determine Housing accommodation for livestock.
    - Determine Health and distress of animal
    - Transporting of livestock.
    - Provide food with diet containing adequate nutrients.
  - Identifying hazards to dairy welfare
  - Determining critical control points for work
  - Complete record keeping on dairy welfare and quality products

### Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below
3. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
4. Accomplish the “Self-checks” in each information sheets.
5. Ask your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
6. If you earned a satisfactory evaluation proceed to “Operation sheets and LAP Tests if any”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity.



7. After You accomplish Operation sheets and LAP Tests, ensure you have a formative assessment and get a satisfactory result;
8. Then proceed to the next information sheet.

<b>Information Sheet -01</b>	<b>Determine <i>element</i> of the industry dairy welfare and quality product</b>
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## 1. Introduction

An animal is in a good state of welfare, if it is comfortable, healthy, well nourish, safe and able to express innate behavior and it is not suffering from unpleasant state such as pain fear and distress. Animal welfare refers to the physical and mental state of the animals in relation to the condition to which it lives and dies.

Good animal welfare requires the pursuit of disease prevention strategies and adoption appropriate veterinary care, shelter management and nutrition, a stimulating and safe environment, human handling, and human slaughter or killing.

Therefore good dairying practice of animal welfares underpinned by the frame work provided in the five freedoms that describes an animal's fundamental need, such as:-

- Free from thrust, malnutrition, and hunger
- Free from discomfort
- Free from injury pain and disease
- Free from fear and distress and
- Able to engage in normal pattern of animal behavior

### Five action area of dairy animal welfare

The five key action area to be considered when developing and implementing quality management system for dairy animal welfare.

- Stockman ship
- Feed and water
- Physical environment



- Husbandry practice
- Health management

Each action area has an associated set of principles that can be used to further define best management practice.

The welfare of animal in dairy production system can be assessed and monitor using a combination of measures that indicate the level of delivery within the five action area.

### 1.1. **Determine element of industry dairy welfare and quality product**

Elements of industry dairy welfare and quality product responsibility for cattle management should include: the following:-

- Assessment of body condition score
- Assessment of locomotion score and foot condition
- Assessment of relevant physiological indicators such as reproductive efficiency milk yield, growth rate
- Assessment of environmental stress such as excessive heat or cold, lack of shelter, fecal accumulation and stocking density in housed, pasture and combination system.
- Assessment of presence and severity of lesion indication of improper barn environment and lack of cow comfort.
- Assessment of level of training and skill of the stock person and availability of veterinary assistance.
- Assessment of adequate feed and water
- Assessment of health management plan and records of animal treatment including incidence of disease mortality and culling rate
- Assessment of physiological appearance of the animal
- Assessment of the use of genetically appropriate animal for the location and climate.

#### 1.1.1. **Housing and accommodations facility for live stock welfare**



A person in charge of cattle production must take reasonable actions in the construction, maintenance and operation of facilities and equipment to ensure the welfare of cattle.

Facility construction or modification should take into account: cattle behavior topography (location and drainage) flood and fire risk climate purpose/length of confinement space feed and water space requirements shade/shelter surface materials cleaning and waste disposal. Passage ways, races and entrances should be designed to take advantage of cattle behavior and to reduce stress during movement through facilities. Visual barriers should be used as appropriate. Changes in levels, poor lighting, narrow or uneven passages, and awkward turns should be avoided. The surfaces of yards, pens, tracks and laneways should be constructed and maintained to minimize the risk of lameness, slips and falls. Facilities should be free of protrusions and obstacles that may cause injury. Water sprinklers should be used to reduce dust levels and provide cooling during handling in yards as appropriate.

### **1.1.2. Determine Health and distress of animal**

A person in charge must ensure the inspection of cattle at intervals, and at a level appropriate to the production system and the risk to the welfare of cattle. A person in charge must ensure appropriate treatment for sick, injured or diseased cattle at the first reasonable opportunity

Hence Observations of animals' behavior that indicates health problems and distress/stress show the following behavioral change:-

- Stress or distress:- e.g. Incessant and vocalization
- Hunger or thirst:-eg.incessant vocalization, aggression
- Social instability:-e.g. aggression
- Painful milking procedures:-eg dunging, kicking
- Heat stress:-eg increase respiratory
- Slippery flooring:-eg. Gait score
- Inappropriate feeding:-stereotypical behavior
- Behavioral test:-fear fullness of human



Therefore people in charge of cattle production system must be ensure determine disease and distress of animal welfare. This include

- Unexplained disease and deaths should be investigated to formulate appropriate remedial and preventive actions.
- Appropriate veterinary advice on cattle disease diagnosis, prevention or treatment should be sought as required.
- Cattle should be vaccinated to protect against likely infectious diseases if there is a significant risk to the welfare of cattle.
- Treatments and vaccines should be administered in accordance with directions. Records of treatments should be kept.
- Consideration should be given to selecting cattle that are suitable for and adapted to the production environment, and that are resistant to parasites and specific diseases relevant to the environment. Internal and external parasites should be monitored and controlled.
- Downer cattle should be assessed and treated without delay. Predators G3.12 Predator control programs should be implemented where predation is a significant risk to the welfare of cattle.

### **1.1.3. Transporting of live stock**

Gentle handling and good husbandry skills improve the overall productivity of the animal and help to diminish any setbacks that the animal might encounter. When trying to improve the handling and transportation practices on your farm there are many different factors to consider, including utilizing proper equipment, handling methods, practices for on the truck and tips for how to decide who is fit to transport.

Loading and unloading animals can be one of the most stressful times on a farm for the animals and herdsman. In order to insure ease of handling, we need to utilize proper handling tools, maintain the correct environment and have the correct ramp design. When assessing the flooring types on your farm it has been found that all surfaces where movement takes place should be non-slip. light broom finish or imprinting concrete can add traction to handling areas,



decreasing slipping and spreader injuries. To maintain a high standard for handling and transportation protocols on your farm many factors must be addressed.

<b>Self-Check -1</b> <b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Define animal welfare. (2pt)
2. Discussing about housing and accommodation in line with animal welfare. (5pt)

**Note: Satisfactory rating above 7 points**                      **Unsatisfactory - below 7 points**  
You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Short Answer Questions**





Information Sheet -02

## Identify types of hazards to dairy welfare

### 1.2. Identify types of hazards to dairy welfare

#### Definition

**Hazard:-any** situation that will cause injury, or dangerous to human is known as hazard.

#### Hazards in Livestock Operations

##### 1. Physical Hazards

- Animal contact (kicks, bites, being stepped on)
- Slips/Falls (wet environment, slippery surfaces)
- Contact with moving equipment (backing transport vehicles, tractors, skid steer loaders)
- Contact with cleaning and feeding equipment (skid steer loaders, feed augers)
- Contact with motorized equipment (electric pumps and hoisting equipment)
- Needle sticks and sharps (inoculation, castration and tooth clipping tools)

##### 2. Chemical hazards

- Chemical contacts (burns, sensitization)
- Pharmaceutical contacts (inoculation products, hormones, antibiotics, vaccine)
- Exposure to toxic gases and displacement of oxygen (Ammonia ,excessive levels of carbon dioxide)
- Exposure to dust levels (Environmental dust from feed, dirt, animals)

##### 3. Biological hazards

- Zoonotic (diseases transmittable from animals to humans)
- Moulds (damp conditions, wet feed/grain/bedding)
- Bacteria (damp conditions, rotting material)
- Animal dander (flakes of skin from animal hides, hair, feathers)

##### 4. Psycho/Social

- Working alone at isolated locations (no assistance or plan for emergency)



- Managers with limited training in personnel management (no knowledge regarding proper training techniques, poor inter personal skills)
- Shift work (distortion of internal “clock,” personal stress increases)

#### 5. Ergonomic

- Lifting (poor technique, excessive weight or cumbersome package)
- Physical handling of livestock (herding the animals, picking animals up, into the pen repetitively, holding struggling animals)
- Performance of repetitive tasks (inoculation of animals, sorting of animals or products, continuous motion such as operating a spray wand)
- General materials handling (pens, building materials, etc.)

**Self-Check -2****Written Test**

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What are the hazards associated with livestock work? (3pts)

**Note: Satisfactory rating above 2 points**

**Unsatisfactory - below 2 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Short Answer Questions**





<b>Information sheet- 03</b>	<b>Determine critical point for work</b>
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### **OHS requirement**

In order to overcome health problems and hazards you must care of the following activities.

- ❖ Operation of equipment
- ❖ Hazard and risk control
- ❖ Handling animals including zoo noses control
- ❖ Manual handling, including lifting and carrying
- ❖ Protection from hazardous noise and organic and other dusts
- ❖ Handling and storage of hazardous substances
- ❖ Outdoor work including protection from solar radiation
- ❖ Appropriate use of personal protective equipment.

### **Selecting and using PPE**

To meet the objective of OHS it is essential to use and select suitable PPE. PPE includes but not limited to: Boots, hat/hard hat, overalls, gloves.

**Self-Check -3****Written Test**

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

2. Discuss about animal hazards in relation with animal welfare. (5pt)

**Note: Satisfactory rating above 4 points**

**Unsatisfactory - below 4points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Short Answer Questions**



<b>Information sheet-4</b>	Complete record keeping on dairy welfare and quality products
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#### **1.4. Keeping and reporting record**

Record keeping is an important activity that must be carried out in livestock production activity. The record should kept all necessary information and report to the concerning body on time. Under this course of study some important thing that should kept may includes:

- ❖ Causes of disease
- ❖ Production performance
- ❖ Reproduction performance
- ❖ Signs of disease
- ❖ Vaccines taken
- ❖ Treatment or medications and other health management related activities.

<b>Self-Check -4</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Why Keeping records? (3pts)

**Note: Satisfactory rating above 2 points                      Unsatisfactory - below 2 points**  
You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Short Answer Questions**

**References**





1. [www.animalwelfarestandards.net.au](http://www.animalwelfarestandards.net.au)
2. [animalwelfarestandards.net.au](http://animalwelfarestandards.net.au) Australian Dairy Farmers
3. [dairynsw.com.au](http://dairynsw.com.au) GippsDairy
4. [dairyaustralia.com.au](http://dairyaustralia.com.au)



# Learning Guide - 41

**Unit of Competence: Comply with Industry Dairy Welfare and Quality Requirements in Livestock Production Problems**

**Module Title: Comply with Industry Dairy Welfare and Quality Requirements in Livestock Production Problems**

**MODULE CODE: AGR AT12 11 0919 LO2- 41**  
**TTLM Code: AGR AT12 TTLM 0919V1**

**LO2. Comply with standard operating procedures**

Instruction Sheet 2

LEARNING GUIDE 41



This learning guide is developed to provide you the necessary information regarding the following content coverage and topics

- ✓ Implement standard operating procedures to dairy welfare requirements
- ✓ Report non-conformance requirements to supervisor

Learning Instructions:

9. Read the specific objectives of this Learning Guide.
10. Follow the instructions described below
11. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
12. Accomplish the “Self-checks” in each information sheets.
13. Ask your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
14. If you earned a satisfactory evaluation proceed to “Operation sheets and LAP Tests if any”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity.
15. After You accomplish Operation sheets and LAP Tests, ensure you have a formative assessment and get a satisfactory result;
16. Then proceed to the next information sheet.

<b>Information Sheet -01</b>	<b>Implement standard operating procedures to dairy welfare requirements</b>
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## 2.1. Implementing instruction of standards operating procedure

### What are Standard Operating Procedures?

- Are powerful tools for seizing control of work procedures?
- In fact, they can really make the difference between success and failure in today's dairy economy. Why? Because SOPs are effective communication tools that contribute to both worker understanding and job satisfaction.

The objectives of SOPs are to:

- Provide work direction
- Improve communication
- Reduce training time
- Reduce variation

Therefore, through apply constant standard operating procedure evaluation of basic dairy infrastructure/facility design and maintenance, as well as assessing your management practices for proper handling and provide training of employees, are all factors when working to increase the productivity and welfare on dairy farm. This also include

- A person in charge must take reasonable actions in the construction, maintenance and operation of facilities and equipment to ensure the welfare of cattle.
- Facility construction or modification should take into account, cattle behavior topography (location and drainage) flood and fire risk climate purpose/length of confinement space feed and water space requirements shade/shelter surface materials cleaning and waste disposal.
- Passage ways, races and entrances should be designed to take advantage of cattle behavior and to reduce stress during movement through facilities.
- Visual barriers should be used as appropriate.
- Changes in levels, poor lighting, narrow or uneven passages, and awkward turns should be avoided.



- The surfaces of yards, pens, tracks and laneways should be constructed and maintained to minimize the risk of lameness, slips and falls.
- Facilities should be free of protrusions and obstacles that may cause injury.
- Water sprinklers should be used to reduce dust levels and provide cooling during handling in yards as appropriate.

<b>Self-check-1</b>	<b>written</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

- i. List objectives of standard operating procedures. (3pt)



ii. Define standard operating procedures. (2pt)

**Note: Satisfactory rating above 4 points**

**Unsatisfactory - below 4 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Short Answer Questions**

Information Sheet -02	Report non-conformance requirements to supervisor
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**2.2. Report non-conformance requirements**



There are many different situations where an incident may affect safety in the workplace and needs to be quickly and effectively communicated to the correct response teams. Perhaps you have personnel who handle dangerous chemicals and need to raise alarms when a leak or spill occurs.

Likewise, production companies have to monitor the product through every stage of the process. Notifications need to be in place to report any equipment failures, downtimes, or out-of-tolerance conditions that occur during these steps especially if your company is spread over multiple buildings and sites, and management needs to be informed when any safety or production incident occurs in another location.

### **Work Place Information**

Communicating with employees is an essential task for everyone managing a successful business, regardless of the type of business or the background of the employees. I have seen many dairy farm owners and managers take communication for granted when they are managing “local” employees. However, when the same managers begin employing Hispanic workers, they quickly realize how important it is to have good communication between everyone on their dairy farm.

<b>Self-check-2</b>	<b>written</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. List importance of work place communication. (3pt)

**Note: Satisfactory rating above 2 points                      Unsatisfactory - below 2 points**  
You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Short Answer Questions**





# Learning Guide - 43

**Unit of Competence: Comply with Industry Dairy Welfare and Quality Requirements in Livestock Production Problems**

**Module Title: Comply with Industry Dairy Welfare and Quality Requirements in Livestock Production Problems**

**MODULE CODE: AGR ATI2 11 0919 LO3- 43**

**TTLM Code: AGR ATI2 TTLM 0919V1**

**LO3- Report problems that affect dairy welfare and quality products**

Instruction Sheet -1

LEARNING GUIDE-43



This learning guide is developed to provide you the necessary information regarding the following content coverage and topics

- Report problems that affect dairy welfare and quality products
  - Recognize potential and existing dairy welfare and quality product problems.
  - Identify instances of dairy welfare and quality products problems.
  - Report variation and potential problems

Learning Instructions:

17. Read the specific objectives of this Learning Guide.
18. Follow the instructions described below
19. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
20. Accomplish the “Self-checks” in each information sheets.
21. Ask your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
22. If you earned a satisfactory evaluation proceed to “Operation sheets and LAP Tests if any”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity.
23. After You accomplish Operation sheets and LAP Tests, ensure you have a formative assessment and get a satisfactory result;
24. Then proceed to the next information sheet.

<b>Information Sheet - 01</b>	<b>Recognize potential and existing dairy welfare and quality product problems</b>
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**dairy welfare and quality product problems**

**3.1.  
Princi  
ple of**



Cattle are managed in environments that vary from extensive rangelands to intensively managed systems. In all cases, the people in charge of cattle are responsible for the welfare of the animals under their control. In achieving improved welfare outcomes envisaged by the standards, it is important that people responsible for animals have the necessary knowledge, experience and skills to undertake the various procedures and meet the requirements of the standards, in a manner that minimizes the risk to cattle welfare. Adherence to good animal husbandry principles is essential to meet the welfare requirements of animals. Good husbandry principles that also meet the basic physiological and behavioral needs of cattle include:

- level of nutrition adequate to sustain good health and welfare
- access to sufficient water of suitable quality to meet physiological needs
- social contact with other cattle
- sufficient space to stand, lie and stretch their limbs and perform normal patterns of behavior handling facilities, equipment and procedures that minimize stress to the cattle
- procedures to minimize the risk of pain, injury or disease
- provision of appropriate treatment including humane killing if necessary
- minimizing the risk of predation
- provision of reasonable precautions against extremes of weather and the effects of natural disasters
- selection and breeding of cattle appropriate for the environment and the level of planned herd management to be provided
- assessment of the need to undertake any husbandry procedures that may result in significant short-term pain against alternative strategies for the long-term welfare of the cattle
- Undertaking any husbandry procedures required for planned herd management in a manner that reduces the impact of these procedures and minimizes risks to cattle welfare.



**Self-check-1**

**written**

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

- iii. What are good husbandry principles meet basic physiological and behavioral needs of cattle? (5pt)

**Note: Satisfactory rating above 4 points**

**Unsatisfactory - below 4 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Short Answer Questions**



**Information Sheet -  
02**

**Identifying instances of dairy welfare and quality  
products problems**

### **Following animal welfare standards and national guide line**

A person knows their responsibilities for cattle welfare and is able to perform the required tasks to minimize the risk to the welfare of cattle. A person must take reasonable actions to ensure the welfare of cattle under their care. Elements of responsibility for cattle management should include:

- understanding the standards and guidelines for cattle welfare
- obtaining knowledge of relevant animal welfare laws
- understanding cattle behavior and use of low stress stock handling techniques
- planning and undertaking actions for the enterprise to meet the welfare standards and address contingencies that may arise
- assessing the quantity, quality and continuity of feed and water supply
- handling to minimize stress, and using handling aids, facilities and other equipment appropriately
- undertaking hygienic practices for husbandry procedures in a manner that minimises the risks to cattle welfare
- understanding and following chemical and drug treatment instructions for cattle
- identifying distressed, weak, injured or diseased cattle, and taking appropriate action
- maintaining appropriate records
- knowledge of local patterns of disease and disease prevention
- humanely killing cattle by appropriate methods, or seeking the assistance of someone who is capable and equipped to kill them humanely.

**Self-check-2**

**written**



**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. what are the elements of responsibility for cattle management (5pt)?

**Note: Satisfactory rating above 4 points**

**Unsatisfactory - below 4 points**

You can ask you teacher for the copy of the correct answers.

### Answer Sheet

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Short Answer Questions

### References

1. Intensive live stock work manual.
2. Dairy animal welfare.Australine.