



ARTEFICIAL INCEMINATION

LEVEL-II

Learning Guide - 14

Unit of Competence: Assisting Basic Husbandry Practice of Dairy Cattle

Module Title: Assisting Basic Husbandry Practice of Dairy Cattle

LG Code: AGR ATI2M 05 0919 LO- 1-14

TTLM Code: AGR ATI2 TTLM 0919V1

LO1: -Prepare for raising large ruminants activities

Instruction-1	Prepare for raising large ruminants activities
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This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- ✓ Identify and select suitable environment for raising the dairy animal.
- ✓ Identify required materials, tools and equipment
- ✓ Report and conduct on all materials, tools and equipment
- ✓ Select and check suitable Personal Protective Equipment (PPE)
- ✓ Provide work task requirement for raising ruminants

Learning Activities

1. Read the specific objectives of this Learning Guide.
2. Read the information written in the “Information Sheets 1-4”.
3. Accomplish the “Self-check” in each information sheet
4. If you earned a satisfactory evaluation proceed to “next Information Sheet”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity #2.
5. Submit your accomplished Self-check. This will form part of your training portfolio.
6. Read the “Operation Sheet” and try to understand the procedures discussed.

1. Introduction

In developing countries like Ethiopia, where a greater proportion of the population lives in rural areas, and livestock provide the potential source of employment and in turn contribute to the national income, livestock production related technologies could be used as a potential means of increasing productivity and subsequently raising the incomes and living standard of the farmers. In recent years, the less developed countries have received increased attention on adoption of agricultural technologies. Higher milk production can be achieved by proper implementation of the scientific dairy husbandry practices but many research evidences revealed that the cattle owners in Ethiopia are not keeping pace with the constantly changing improved technologies. Many farmers are still using traditional husbandry practices which may be the cause of low production and productivity of the dairy animals

1.1. Selecting suitable environment for raising dairy animals

Important resources to keep in mind, If you are thinking of entering the cattle business, you should develop a resource checking that applies to the particular cattle enterprise that interests you. The list of available resources may dictate the type and size of cattle operation that would be feasible. The types of resources that must be considered during dairy animal production are the following:

- Understanding of production systems
- Understanding of genetics and cattle type
- Forage management
- Nutrition & reproduction
- Cattle handling, marketing.
- Business management
- Equipment operation, maintenance and repair
- Cattle diseases and health management
- Feed resources (forages, grains, by-product feeds, etc)
- Amount of labor available

- Amount of initial investment capital available
- Cash flow and debt repayment ability
- Facilities (fencing, feeding, water, storage, etc)
- Marketing opportunities

Deciding upon a direction

Before the first head of cattle is purchased, a written management and business plan should be developed. The plan should include both short term and long term goals for the operation. Attention should be given to any capital purchases, whether they are land, breeding cattle, equipment, or facilities. Before investing in the business, prospective investors should be aware of where the industry is in the roughly ten-year cattle price cycle. Capital purchases should be targeted to meet the goals of the operation and should contribute significantly to their own debt repayment.

Generally success or failure in the cattle business depends to a large extent upon doing the right things at the right time. Whether this is the result of good training and knowledge, good judgment or intuition, the diligence with which some producers carry out certain management practices skillfully makes them more successful than others.

Factors must be considered when purchasing cattle

Condition - If you are purchasing cattle to put on pasture avoid cattle with excess fat as they gain poorly for the first month. Cattle should be healthy but lean and avoid cattle that may not have performed well elsewhere. You may be able to purchase them for less money but they probably won't achieve an acceptable performance.

Health - Does the animal look healthy? Is it alert and bright eyed? Is its breathing normal and does it moves about vigorously? Does it have a dull hair coat and look emaciated? What has it been vaccinated for and when?

Frame Size - Cattle with a small frame will finish at a light weight while cattle with a large frame will finish at a heavy weight. Cattle with different frame sizes require

different feeding programs. Since you will want to manage your cattle as a group, purchase cattle that are uniform in frame size.

Breed - In most situations frame and conformation are more important than breed in relation to cattle performance. However, there are some things to consider. Holsteins will work well in a feeder or finishing enterprise. They require different management and sell in a different market category. Animals with a high percentage of Brahman genetics do poorly in cold winter conditions. The disposition of the cattle can be an important factor which can be a breed characteristic. Avoid cattle that are high-strung or aggressive.

Self-Check -1	Written Test
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Directions: Answer all the questions listed below.

- What are the pre requisite for raising large ruminants? Discuss briefly. 3(pts)
- What are important resources to keep in mind raising large ruminants? (3pts)
- Why should producers observe animals before buying them? (2pts)

Note: Satisfactory rating above 7 points

Unsatisfactory - below 6 points

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

Score = _____
Rating: _____

Answer Sheet

Name: _____

Date: _____

Short Answer Questions

References

1. East African dairy cattle manual,2012
2. Bulletin of dairy cow husbandry
3. *Corresponding author. E-mail: yerulemma@gmail.com.

1.2. Essential livestock material and equipments including:-

- Water trough
- Feed trough
- Dipping
- Bathing
- Isolation house
- Quarantine house
- Concentrate feed house
- Hay storage house
- Isolation house
- Guard house
- Cattle pen, calf pen, Heifers' pen
- Milking parlors
- Milk storage
- Measuring scale
- Veterinary house
- Office
- Fences

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, type of breed, age, and physiological status of animals.

Self-Check -2

Written Test

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

- 1. List at least 5 important tools and equipment used for carryout husbandry practice.

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

OH&S Requirements

Occupational Health & Safety (OH&S) legislation requires businesses to provide employees and visitors with safe premises. This means having properly functioning machinery, as well as a suitable working environment with training and supervision. Many companies are searching for solutions that can provide effective communications to meet the monitoring and audit processes required to gain OH&S certification and comply with regulations.

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 occur another location.

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

1. write the use of OHS requirements(3pt)

Note: Satisfactory rating above 2 points

Unsatisfactory - below 2points

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

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information sheet -4	Select and check suitable Personal Protective Equipment (PPE)
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Personal protective equipment (PPE):- is used by workers in various work settings. Gloves, hard hats, safety glasses, ear plugs, aprons, laboratory coats, safety shoes, and respirators are all examples of PPE. When a hazard cannot be removed from the workplace, PPE must be considered. PPE does not eliminate hazards from the workplace but places a barrier between the worker and the hazard. If the PPE fails or is not used properly, the worker will be exposed.

In order to ensure that workers are provided with correct PPE, and that the PPE is used properly, the Occupational Safety and Health Administration (OSHA) has developed standards for certain types of PPE. The employer must provide to employees certain PPE when a workplace hazard assessment reveals the need for its use. Standards have been developed for hard hats, work shoes, gloves, eyewear, and respirators..

TYPES OF PERSONAL PROTECTIVE EQUIPMENT

There is a large variety of PPE available. It can range from simple safety glasses to full body suits. The selection and proper use of PPE is vital to health and safety on the job. The following is a current list of PPE recommended

- Dry the clean PPE before storing
- Store PPE away from other clothing and away from pesticides areas.
- Replacing respirator purifying elements

Use appropriate Personal Protective Equipments as of the regulations and rules in the requirements. Some of the important personal protective equipments that are used in livestock production are includes: - sun hat, respirator, goggle, boots, hand gloves, overall/apron are some of very important personal protective equipments for dairy cattle production activities.

Self-Check 4	Written Test
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Directions: Answer all the questions listed below. Illustrations may be necessary to aid some explanations/answers.

1. What does mean PPE? (3 points)
2. Write the Duties related to PPE (4pts)
3. Mention at least 4 appropriate Personal Protective Equipments for livestock activities? (2pts)

Note: Satisfactory rating above 7 points

Unsatisfactory - below 6 points

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

Score = _____
Rating: _____

Answer Sheet

Name: _____

Date: _____

Short Answer Questions

Reference

1. East African dairy husbandry practice, 2004.
2. Live stock work manual