

PRODUCTION OF NON -RUMINANT ANIMALS

UNIT CODE: 0811 451 09A

TVET CDACC UNIT CODE: AGR/CU/EXT/CR/06/4/MA

UNIT DURATION: 120 HOURS

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Produce non-ruminant animals

Unit Description

This unit specifies competencies required to produce non-ruminant animals. It entails breeding non-ruminant animals, feeding non-ruminant animals, managing non-ruminant animal parasites and diseases, carrying out non-ruminant animals' routine management practices and marketing non-ruminant products.

Summary of Learning Outcomes

By the end of this unit, the learner should be able to:

| S/No | Learning Outcomes | Duration (Hours) |
|--------------|--|------------------|
| 1. | To breed non-ruminant animals | 10 |
| 2. | To feed non-ruminant animals | 30 |
| 3. | To manage non-ruminant parasites | 20 |
| 4. | To manage non ruminant diseases | 20 |
| 5. | To carry out non ruminant routine management practices | 30 |
| 6. | To market non ruminant products | 10 |
| Total | | 120 |

Learning Outcomes, Content and Suggested Assessment Methods

| Learning Outcomes | Content | Suggested Assessment Methods |
|-------------------|---------|------------------------------|
| 1. Breed non- | Theory | • Written tests |

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| Ruminant animals | <p>1.1 Breeding of non-ruminant animals</p> <p>1.1.1 Definition of terms</p> <p>1.1.2 Importance of breeding non-ruminant animals</p> <p>1.1.3 Types of non-ruminant animals</p> <p>1.1.3.1 Rabbits</p> <p>1.1.3.2 pigs</p> <p>1.1.3.3 Poultry</p> <p>1.1.3.4 Donkeys and Horses</p> <p>1.2 Breeding methods</p> <p>1.2.1 Cross breeding</p> <p>1.2.2 Close breeding</p> <p>1.2.3 Line breeding</p> <p>1.2.4 Inbreeding</p> <p>1.2.5 Upgrading</p> <p>1.3 Breeding tools and equipment's</p> <p>1.3.1 Animal pregnancy testing kit</p> <p>1.3.2 Hormone testing kit</p> <p>1.3.3 Semen collection kit</p> <p>1.3.4 Ovulation prediction monitors</p> <p>1.3.5 Artificial insemination kit</p> <p>1.3.6 Uses of breeding tools and equipment</p> <p>1.3.7 Maintenance of breeding tools and equipment's</p> <p>1.4 Selection of breeding stock in non-Ruminant animals</p> <p>1.4.1 Definition of terms</p> <p>1.4.2 Importance of selecting breeding stock in non-Ruminant animals</p> <p>1.4.3 Factors to consider when selecting</p> | <ul style="list-style-type: none"> • Projects • Interviews/ Oral questions • Individual/group assignments • Practical |
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| | <p>breeding stock</p> <p>1.5 Methods of mating</p> <p>1.5.1 Definition of terms</p> <p>1.5.2 Types of mating</p> <p>1.5.2.1 Natural mating</p> <p>1.5.2.2 Artificial insemination</p> <p>1.5.3 Advantages and disadvantages of mating</p> <p>1.6 Preparing breeding records</p> <p>Practice</p> <p>1.7 Carry out collection of semen from a superior male using Artificial insemination</p> | |
| 2 Feed non-ruminant animals | <p>Theory</p> <p>2.1 Non-ruminant feeds</p> <p>2.1.1 Definition of terms</p> <p>2.1.2 Importance of non-ruminant feeds</p> <p>2.1.3 Types of non-ruminant feeds</p> <p>2.1.3.1 Concentrates</p> <p>2.1.3.2 Forage</p> <p>2.1.3.3 Pastures</p> <p>2.2 Feed formulation</p> <p>2.2.1 Pearson's square method</p> <p>2.2.2 Trial and error method</p> <p>2.3 Factors determining animal nutritional requirement.</p> <p>2.4 Preparing feeding records</p> <p>Practice</p> <p>2.5 Formulate feed rations for non-ruminant animals.</p> <p>2.6 Feed non-ruminant animals.</p> <p>2.7 Prepare feeding records of non-</p> | <ul style="list-style-type: none"> • Written tests • Projects • Interviews/ Oral questions • Individual/group assignments • Practical |

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| | ruminant animals. | |
| 3 Manage non-ruminant parasites | <p>Theory</p> <p>3.1 Non-ruminant parasites</p> <p>3.1.1 Definition of terms</p> <p>3.1.2 Types of non-ruminant parasites</p> <p>3.1.2.1 Internal parasites</p> <p>3.1.2.2 External parasites</p> <p>3.2 Sign and symptoms of non-ruminant parasites</p> <p>3.3 Parasites control measures</p> <p>3.3.1 Deworming</p> <p>3.3.2 Spraying</p> <p>3.3.3 Dipping</p> <p>3.3.4 Dusting</p> <p>3.3.5 Vaccination</p> <p>3.3.6 Fumigation</p> <p>3.4 Preparing parasite control records</p> <p>3.5 Managing parasite control waste</p> <p>Practice</p> <p>3.6 Carry out identification of external parasites in non-ruminant animals.</p> <p>3.7 Carry out parasite control measures using different methods.</p> <p>3.8 Carry out parasite control waste management.</p> | <ul style="list-style-type: none"> • Written tests • Projects • Interviews/ Oral questions • Individual/group assignments • Practical |
| 4 Manage non-ruminant diseases | <p>Theory</p> <p>4.1 Non-ruminant diseases</p> <p>4.1.1 Definition of terms</p> <p>4.1.2 Types of non-ruminant diseases</p> <p>4.1.2.1 Bacterial diseases</p> <p>4.1.2.2 Fungal diseases</p> | <ul style="list-style-type: none"> • Written tests • Projects • Interviews/ Oral questions • Individual/group assignments • Practical |

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| | <p>4.1.2.3 Protozoan diseases</p> <p>4.1.2.4 Rickettsial diseases</p> <p>4.1.2.5 Nutritional diseases</p> <p>4.2 Sign and symptoms of non-ruminant diseases</p> <p>4.3 Diseases control measures</p> <p>4.3.1 Deworming</p> <p>4.3.2 Spraying</p> <p>4.3.3 Dipping</p> <p>4.3.4 Quarantine</p> <p>4.3.5 Vector control</p> <p>4.3.6 Vaccination</p> <p>4.4 Preparing diseases control records</p> <p>4.5 Managing diseases control waste</p> <p>Practice</p> <p>4.6 Carry out identification of diseases in non-ruminant's animals.</p> <p>4.7 Carry out diseases control measures using different methods.</p> <p>4.8 Carry out diseases control waste management.</p> | |
| 5 Carry out non-ruminant routine management practices | <p>Theory</p> <p>5.1 Routine management practices of non-ruminant animals</p> <p>5.1.1 Definition of terms</p> <p>5.1.2 Importance of routine management practices of non-ruminant animals</p> <p>5.1.3 Types of management practices in non-ruminant animals</p> <p>5.1.3.1 Feeding</p> <p>5.1.3.2 Vaccination</p> | <ul style="list-style-type: none"> • Written tests • Projects • Interviews/ Oral questions • Individual/group assignments • Practical |

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| | <p>5.1.3.3 Deworming</p> <p>5.1.3.4 Housing</p> <p>5.1.3.5 Identification</p> <p>5.1.3.6 Tailing</p> <p>5.1.3.7 Castration</p> <p>5.1.3.8 Teeth clipping</p> <p>5.1.3.9 Debeaking</p> <p>5.1.3.10 Sexing</p> <p>5.1.3.11 Iron injection</p> <p>Practice</p> <p>5.2 Carry out routine management practices in non-ruminant animals</p> | |
| 6 Market non-ruminant products | <p>Theory</p> <p>6.1 Non-ruminant products</p> <p>6.1.1 Definition of terms</p> <p>6.1.2 Importance of non-ruminant products</p> <p>6.1.3 Types of non-ruminant products</p> <p>6.1.3.1 Meat</p> <p>6.1.3.2 Bacon and pork</p> <p>6.1.3.3 Hides</p> <p>6.1.3.4 Eggs</p> <p>6.2 Preservation of non-ruminant products</p> <p>6.2.1 Cooling</p> <p>6.2.2 Refrigeration</p> <p>6.2.3 Freezing</p> <p>6.2.4 Smoking</p> <p>6.2.5 Drying</p> <p>6.2.6 Fermentation</p> <p>6.3 Distribution of non-ruminant products</p> <p>6.4 Preparation of non-ruminant product records</p> | <ul style="list-style-type: none"> • Written tests • Projects • Interviews/ Oral questions • Individual/group assignments • Practical |

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| | Practice 6.5 Carry out processing of non-ruminant products using various methods 6.6 Carry out preservation of non-ruminant products using various methods | |
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Suggested Methods of Instruction

- Role playing
- Group discussion
- Direct instruction

Recommended Resources for 25 Trainees

| S/No. | Category/Item | Description/Specifications | Quantity | Recommended Ratio (Item: Trainee) |
|----------|---|----------------------------|----------|--------------------------------------|
| A | Learning Materials | | | |
| 1. | Animal Production manual | | 5 pcs | 1:5 |
| 2. | writing materials | | 50 | 2:1 |
| 3. | Charts | | 1 | 1:25 |
| 4. | PowerPoint presentations | For trainer's use | 1 | 1:25 |
| 5. | Whiteboard | | 1 | 1:25 |
| 6. | Assorted color of whiteboard markers | For trainer's use | | |
| 7. | Printers | | 1 | 1:25 |
| 8. | Projector | | 1 | 1:25 |
| B | Learning Facilities & infrastructure | | | |
| 1. | Lecture/theory room | | 1 | 1:25 |
| 2. | Agriculture lab | | 1 | 1:25 |
| C | Consumable materials | | | |
| 1. | Vaccines | | 1 | 1:25 |

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| 2. | Anthelminthes | | 1 | 1:25 |
| D | Tools and Equipment | | | |
| 1. | Hoof trimmer | | 5 | 1:5 |
| 2. | Dewormer | | 5 | 1:5 |
| 3. | Iron rod | | 5 | 1:5 |
| 4. | Crush | | 1 | 1:25 |
| 5. | Refrigerator | | 1 | 1:25 |
| 6. | Knapsack sprayer | | 5 | 1:5 |
| 7. | Artificial insemination kit | | 5 | 1:5 |

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