

## GOAT PRODUCTION

**UNIT CODE:** 0811 351 06A

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

### Relationship to Occupational Standards

This unit addresses the unit of competency: Carry Out Goat Production

**Duration of Unit: 80 Hours**

### UNIT DESCRIPTION

This unit specifies competencies required to carry out goat production. It involves constructing goat structures, carrying out goat breeding, carrying out goat feeding, performing goat routine management practices, carrying out kid management and marketing goat products.

### Summary of Learning Outcomes

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

| S/No         | Learning Outcomes                         | Duration (Hours) |
|--------------|-------------------------------------------|------------------|
| 1.           | Construct goat structures                 | 20               |
| 2.           | Carry out goat feeding                    | 10               |
| 3.           | Carry out goat breeding                   | 10               |
| 4.           | Perform goat routine management practices | 20               |
| 5.           | Carry out kid management                  | 10               |
| 6.           | 7. Market goat products                   | 10               |
| <b>Total</b> |                                           | <b>80</b>        |

### Learning Outcomes, Content and Suggested Assessment Methods

| Learning Outcome | Content | Suggested Assessment Methods |
|------------------|---------|------------------------------|
|------------------|---------|------------------------------|

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                          |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>1. Construct goat structures</b></p> | <p><b>1.1 Tools, equipment and materials</b></p> <p>1.1.1 tools</p> <ul style="list-style-type: none"> <li>• hammer</li> <li>• screw drivers</li> <li>• tape measures</li> <li>• level</li> <li>• saw</li> <li>• drill</li> <li>• pliers</li> <li>• chisel</li> </ul> <p>1.1.2 equipment</p> <ul style="list-style-type: none"> <li>• Bulldozer</li> <li>• Cranes</li> <li>• Dump trucks</li> <li>• Mixer</li> <li>• Forklifts</li> </ul> <p>1.1.3 materials</p> <ul style="list-style-type: none"> <li>• Cement</li> <li>• Sand</li> <li>• Blocks</li> <li>• Quarry dust</li> </ul> <p>1.2 Selection of site for goat structure</p> <p>1.3 Construction of goat structures</p> <p>1.4 Maintenance of goat structures</p> <p>1.5 Construction and maintenance of goat structure records</p> <p>1.6 Waste management</p> | <ul style="list-style-type: none"> <li>• Written assessment</li> <li>• Practical</li> <li>• Projects</li> <li>• Third party report</li> <li>• Portfolio of evidence</li> <li>• Oral questions</li> </ul> |
| <p><b>2. Carry out goat feeding</b></p>    | <p>2.1 Feeding tools, equipment and materials</p> <p>2.2 Goat feeds</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• Written assessment</li> <li>• Practical</li> </ul>                                                                                                              |

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                          |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | <ul style="list-style-type: none"> <li>○ Grass</li> <li>○ Shrubs</li> <li>○ Commercially formulated feeds</li> </ul> <p>2.3 provision of basal rations</p> <p>2.4 feed supplements</p> <ul style="list-style-type: none"> <li>● Vitamins</li> <li>● Minerals</li> <li>● Hormones</li> <li>● Medicants</li> </ul> <p>2.5 Grazing management</p> <p>2.6 Pasture grazing capacity</p> <p>2.7 Evaluation of feed intake</p> <p>2.8 Evaluation of feed conversion efficiency</p> <p>2.9 Goat feeding records</p> <p>2.10 waste management</p> | <ul style="list-style-type: none"> <li>● Projects</li> <li>● Third party report</li> <li>● Portfolio of evidence</li> <li>● Oral questions</li> </ul>                                                    |
| <b>3. Carry out goat breeding</b> | <p>3.1 Breeding management tools, equipment and materials</p> <p>3.2 Goat breeds</p> <ul style="list-style-type: none"> <li>○ Angora, Alpine</li> <li>○ Toggenburg</li> <li>○ Saanen, Jamnapuri</li> <li>○ Boar, Anglo-Nubian</li> <li>○ Somali/ Galla</li> </ul> <p>3.3 Selection of goat breeds</p> <p>3.4 Heat signs in does</p> <p>3.5 Flushing</p> <p>3.6 Servicing</p> <p>3.7 Natural mating</p>                                                                                                                                   | <ul style="list-style-type: none"> <li>● Written assessment</li> <li>● Practical</li> <li>● Projects</li> <li>● Third party report</li> <li>● Portfolio of evidence</li> <li>● Oral questions</li> </ul> |

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|                                                     | 3.8 Artificial insemination<br>3.9 Provision of care to pregnant does<br>3.10 Steaming up<br>3.11 Management of kid<br>3.12 Breeding records                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                          |
| <b>4. Perform goat routine management practices</b> | 4.1 Goat identification methods <ul style="list-style-type: none"> <li>○ Tattooing</li> <li>○ Ear-tagging</li> <li>○ Ear notching,</li> <li>○ Microchips</li> <li>○ Naming</li> </ul> 4.2 Goat castration methods <ul style="list-style-type: none"> <li>○ Rubber ringing</li> <li>○ Open castration</li> </ul> 4.3 Hoof trimming<br>4.1 Shearing<br>4.2 Culling<br>4.3 Control of internal and external parasites <ul style="list-style-type: none"> <li>• Dipping</li> <li>• Bush clearing</li> <li>• Dusting</li> <li>• Spraying</li> <li>• Deworming</li> </ul> Drenching<br>4.4 Vaccination<br>4.5 Isolation and quarantine<br>4.6 Provision of clean water ad-libitum<br>4.7 Records | <ul style="list-style-type: none"> <li>• Written assessment</li> <li>• Practical</li> <li>• Projects</li> <li>• Third party report</li> <li>• Portfolio of evidence</li> <li>• Oral questions</li> </ul> |

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|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>5. Carry out kid management</b> | 5.1 Handling of kids at birth<br>5.2 Feeding kids on colostrum<br>5.3 Fostering of orphaned kids<br>5.4 Kid identification methods <ul style="list-style-type: none"> <li>• Ear Tagging</li> <li>• Ear Notching</li> <li>• Neck Chains or Straps</li> </ul> 5.5 Weighing of kids<br>5.6 Monitoring of kid growth rate<br>5.7 Waste management | <ul style="list-style-type: none"> <li>• Written assessment</li> <li>• Practical</li> <li>• Projects</li> <li>• Third party report</li> <li>• Portfolio of evidence</li> <li>• Oral questions</li> </ul> |
| <b>6. Market goat products</b>     | 6.1 Conducting Market survey<br>6.2 Goat products <ul style="list-style-type: none"> <li>• Milk</li> <li>• Wool</li> <li>• Shoven</li> <li>• Skin</li> <li>• Hooves</li> </ul> 6.3 Goat transportation<br>6.4 Goat products marketing<br>6.5 Marketing records                                                                                | <ul style="list-style-type: none"> <li>• Written assessment</li> <li>• Practical</li> <li>• Projects</li> <li>• Third party report</li> <li>• Portfolio of evidence</li> <li>• Oral questions</li> </ul> |

### Suggested methods of delivery

- Practical
- Project
- Demonstration
- Group work and Discussions
- Direct instruction

### Recommended Resources for 25 trainees

| S/No. | Category/Item | Description/ | Quantity | Recommended |
|-------|---------------|--------------|----------|-------------|
|-------|---------------|--------------|----------|-------------|

|          |                                                 | Specifications                                                 |         | Ratio<br>(Item: Trainee) |
|----------|-------------------------------------------------|----------------------------------------------------------------|---------|--------------------------|
| <b>A</b> | <b>Learning Materials</b>                       |                                                                |         |                          |
| 27.      | Charts                                          | Flip Charts<br>Rules and<br>Regulations                        | 5       | 1:5                      |
| 28.      | Markers                                         | whiteboard<br>markers and<br>permanent<br>markers              | 5       | 1:5                      |
| 29.      | Video clips<br>Audio tapes                      | MP4, MP3                                                       | 5       | 1:5                      |
| 30.      | Newspapers and Handouts                         | Daily                                                          | 25      | 1:1                      |
| 31.      | Business Journals                               | Annual, Monthly,<br>Daily                                      | 25      | 1:1                      |
| 32.      | Breeder's manuals                               | updated                                                        | 5       | 1:5                      |
| <b>B</b> | <b>Learning Facilities &amp; Infrastructure</b> |                                                                |         |                          |
| 33.      | Lecture/Theory<br>Room                          | (9* 8 sq. metres)                                              | 1       | 1:25                     |
| 34.      | Internet Connection                             | WI-FI, Dial-Up, Cable,<br>Fixed-wireless,                      | 1       | 1:25                     |
| 35.      | Drinkers                                        | 1                                                              | 1       | 1:25                     |
| 36.      | Feeding trough                                  | 1                                                              | 1       | 1:25                     |
| 37.      | Grass                                           | 1                                                              | 1       | 1:25                     |
| 38.      | Shrub                                           | Well equipped                                                  | 1       | 1:25                     |
| <b>C</b> | <b>Consumable Materials</b>                     |                                                                |         |                          |
| 39.      | Flashcards                                      | Alphabet, Numbers, Math                                        | 25      | 1:1                      |
| 40.      | Stationery                                      | Printing Papers, and<br>Exercise Books Sizes A4,<br>A3, A2 etc | 5 reams | 1:5                      |
| <b>D</b> | <b>Tools And Equipment</b>                      |                                                                |         |                          |
| 41.      | Wheelbarrow                                     | Any model                                                      | 1       | 1:25                     |

|          |                     |                                                                                                 |             |      |
|----------|---------------------|-------------------------------------------------------------------------------------------------|-------------|------|
| 42.      | Scissors            | LED.LCD, Laser                                                                                  | 5           | 1:5  |
| 43.      | Hand drill          | Glass, melamine, porcelain                                                                      | 1           | 1:25 |
| 44.      | Panga               | Any five                                                                                        | 5           | 1:5  |
| 45.      | Measuring tape      | Any five                                                                                        | 5           | 1:5  |
| 46.      | Spade               | Any five                                                                                        | 5           | 1:5  |
| 47.      | String/line         | Any five                                                                                        | 5           | 1:5  |
| 48.      | Surgical blades     | In good condition                                                                               | 5           | 1:5  |
| 49.      | Ear Notchers        | In good condition                                                                               | 5           | 1:5  |
| 50.      | Ear tags            | In good condition                                                                               | 5           | 1:5  |
| 51.      | Neck chains         | In good condition                                                                               | 5           | 1:5  |
| 52.      | Straps with numbers | In good condition                                                                               | 5           | 1:5  |
| <b>F</b> | <b>Specimens</b>    |                                                                                                 |             |      |
| 1.       | Goat breeds         | Angora,<br>Alpine<br>Toggenburg<br>Saanen<br>Jamnapuri<br>Boar<br>Anglo-Nubian<br>Somali/ Galla | 5 each type | 1:5  |

