

## LIVESTOCK FORAGE PRODUCTION

**UNIT CODE:** 0811 341 01A

**TVETCDACC UNIT CODE:** AGR/CU/LFP/CR/01/4/MA

**UNIT DURATION:**240Hours

### Relationship to Occupational Standards

This unit addresses the Unit of Competency:Produce livestock forage

### Unit Description

This unit covers the competencies required in produce livestock forage.It involves preparing forage land, establishing forage crops, managing forage crops, utilizing forage crops and conserving forage crops.

### Summary of Learning Outcomes

By the end of this unit, the trainee will be able to:

SNO	Learning Outcome	Duration (Hours)
1.	Prepare forage land	30
2.	Establish forage crops	50
3.	Manage forage crops	60
4.	Utilize forage crops	40
5.	Conserve forage crops	60

### Learning Outcomes, Content and Suggested Assessment Methods

Learning outcomes	Content	Suggested assessment methods
1. Prepare forage land	1.1.Personal protective equipment 1.1.1. Gumboots 1.1.2. Overall 1.1.3. Goggles 1.1.4. Helmet 1.1.5. Nose masks 1.1.6. Gloves 1.2.Land preparation tools and equipment 1.2.1. Jembes /hoe 1.2.2. Slashers	<ul style="list-style-type: none"><li>• Practical</li><li>• Third party report</li><li>• Projects</li><li>• Portfolio of evidence</li><li>• Written tests</li><li>• Oral questions</li></ul>

	1.2.3. Mowers 1.2.4. Ploughs 1.2.5. Harrows... 1.3. Forage land clearance 1.4. Forage land tillage	
2. Establish forage crops	2.1. Tools and equipment 2.1.1. Jembes /hoe 2.1.2. Slashers 2.1.3. Mowers 2.1.4. Ploughs 2.1.5. Harrows 2.2. Forage propagation materials 2.2.1. Cuttings 2.2.2. Seeds 2.2.3. Seeds 2.2.4. Seedlings 2.2.5. Splits 2.2.6. Crowns 2.2.7. Slips 2.2.8. Cuttings 2.2.9. Suckers 2.2.10. Tissue culture 2.3. Forage propagation 2.4. Types Forage propagated 2.3.1 Nandi setaria 2.3.2 Star grass 2.3.3 Guinea grass 2.3.4 Rye grass 2.3.5 Kale 2.3.6 Sweet potato vine 2.3.7 Lucerne 2.3.8 Desmodium 2.3.9 Clovers 2.3.10 Napier grass 2.3.11 Bana grass. 2.3.12 Sesbania 2.3.13 Alfalfa 2.3.14 Rhodes 2.3.15 Leucaena 2.3.16 Oats 2.5. Forage establishment records 2.6. Waste is managed according to environmental	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Third party report</li> <li>• Projects</li> <li>• Portfolio of evidence</li> <li>• Written tests</li> <li>• Oral questions</li> </ul>

	protection regulations	
3. Manage forage crops	3.1 Good Agricultural Practices (GAP) <ul style="list-style-type: none"> <li>3.1.1 Field hygiene</li> <li>3.1.2 Selection of clean planting materials</li> <li>3.1.3 Safe use of agro-chemicals and maximum Residual Levels of agro-chemicals used</li> <li>3.1.4 Environmental sustainability</li> <li>3.1.5 Integrated pest management (IPM)</li> <li>3.1.6 Minimum, tillage</li> </ul> 3.2 Forage management <ul style="list-style-type: none"> <li>3.2.1 Forage pests and diseases control</li> <li>3.2.2 Forage weeds control</li> <li>3.2.3 Fertilizers application.</li> <li>3.2.4 Forage watering</li> <li>3.2.5 Forage management records</li> </ul>	
4. Utilize forage crops	4.1 Forage crop utilization <ul style="list-style-type: none"> <li>4.1.1 Forage harvesting tools and equipment</li> <li>4.1.2 Forages harvesting</li> <li>4.1.3 Forage production records</li> <li>4.1.4 Forage waste management</li> </ul>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Third party report</li> <li>• Projects</li> <li>• Portfolio of evidence</li> <li>• Written tests</li> <li>• Oral questions</li> </ul>
5. Conserve forage crops	5.1 Forage crops conservation 5.2 Forage conservation tools and equipment <ul style="list-style-type: none"> <li>5.2.1 Balers</li> <li>5.2.2 Forage harvesters</li> <li>5.2.3 Mowers</li> <li>5.2.4 Manual balers</li> </ul> 5.3 Forage storage facilities 5.4 Forage conservation methods 5.5 Forage conservation records 5.6 Waste management	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Third party report</li> <li>• Projects</li> <li>• Portfolio of evidence</li> <li>• Written tests</li> <li>• Oral questions</li> </ul>

### Suggested Methods of Instruction

- Practical
- Role playing
- Discussion
- Direct instruction

### Recommended Resources for 25 trainees

S/No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
<b>A</b>	<b>Learning Materials</b>			
1.	Textbooks		5 pcs	1:5
2.	Charts		5 pcs	1:5
3.	Power point presentations	For trainer's use		
<b>B</b>	<b>Learning Facilities &amp; infrastructure</b>			
4.	Lecture/theory room		1	1:25
5.	Workshop		1	1:25
6.	Laboratory		1	1:25
7.	Site		1	1:25
<b>C</b>	<b>Consumable materials</b>			
9.	Forage propagating materials		25 pcs	1:1
10.	Farm inputs		25 pcs	1:1
<b>D</b>	<b>Tools and Equipment</b>			
11.	Jembes /hoe		25 pcs	1:1
12.	Slashers		25 pcs	1:1
13.	Tractor		1	1:25
14.	Mowers		1 pc	1:25
15.	Ploughs - disc		1 pc	1:25
16.	Harrows - disc		1 pc	1:25
17.	Balers		1 pc	1:25
18.	forage harvesters		1 pc	1:25
19.	Manual balers		1 pc	1:25