

## **LIVESTOCK FEEDS PRODUCTION**

**UNIT CODE:** 0811 351 08A

**TVET CDACC UNIT CODE:** AGR/CU/AP/CR/01/4/MA

### **Relationship to Occupational Standards**

This unit addresses the unit of competency: Produce Livestock Feeds

**Duration of Unit: 100 Hours**

### **UNIT DESCRIPTION**

This unit specifies competencies required to produce livestock feeds. It involves producing livestock forage, conserving livestock forage, and formulating livestock feed rations.

### **Summary of Learning Outcomes**

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

S/No	Learning Outcomes	Duration (Hours)
1.	Produce livestock forage	40
2.	Conserve livestock forage	20
3.	Formulate livestock rations	40
<b>Total</b>		<b>100</b>

### **Learning Outcomes, Content and Suggested Assessment Methods**

Learning Outcome	Content	Suggested Assessment Methods
1 Produce livestock forage	1.1. Forage production tools and equipment 1.1.1. Grass cutters 1.1.2. Generator 1.1.3. Water pump with hose 1.1.4. Tractors (optional) 1.1.5. Plough and harrow	<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>1.1.6. Shovel</p> <p>1.1.7. Hoe</p> <p>1.1.8. Water sprinklers</p> <p>1.1.9. Planter</p> <p>1.1.10. Wheelbarro</p> <p>1.1.11. Hole digger</p> <p>1.1.12. Fencing materials</p> <p>1.2 Propagation materials</p> <p>1.2.1 Seeds</p> <p>1.2.2 Seedlings</p> <p>1.2.3 Cuttings</p> <p>1.2.4 Splits</p> <p>1.2.5 Tubers</p> <p>1.3 Land preparation</p> <p>1.3.1 Good Agricultural Practices (GAP)</p> <p>1.3.1.1 Liming</p> <p>1.3.1.2 Mulching</p> <p>1.4 Establishing propagation materials</p> <p>1.4.1 Direct sowing</p> <p>1.4.2 Broadcasting</p> <p>1.4.3 Transplant</p> <p>1.5 Forage management</p> <p>1.5.1 Pastures</p> <p>1.5.2 Fodder crops</p> <p>1.6 Harvesting of forage.</p>	
2. Conserve livestock forage	<p>2.1 Quality assessment of forage</p> <p>2.2 Conservation of forages</p> <p>2.2.1 Silage</p> <p>2.2.2 Hay</p>	<ul style="list-style-type: none"> <li>• Written assessment</li> <li>• Practical</li> <li>• Projects</li> <li>• Third party report</li> </ul>

	2.3 Storage of forage 2.4 Forage production record 2.5 Waste management	<ul style="list-style-type: none"> <li>• Portfolio of evidence</li> <li>• Oral questions</li> </ul>
3. Formulate livestock rations	3.1 Feed formulation tools and equipment 3.2 Animal feeds ingredients <ul style="list-style-type: none"> <li>3.2.1 Feed additives,</li> <li>3.2.2 Bran</li> <li>3.2.3 Mineral premixes</li> </ul> 3.3 Sourcing of animal feeds ingredients 3.4 Weighing of animal feed ingredients 3.5 Feed formulation methods <ul style="list-style-type: none"> <li>3.5.1 Pearson square</li> <li>3.5.2 Trial and error</li> <li>3.5.3 Computation method</li> </ul> 3.6 Packaging and storage of formulated feeds 3.7 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>

### Suggested methods of delivery

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

## Recommended Resources

S/No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
<b>A</b>	<b>Learning Materials</b>			
1.	Charts	Flip Charts Rules and Regulations	5	1:5
2.	Markers	whiteboard markers and permanent markers	5	1:5
3.	Video clips Audio tapes	MP4, MP3	5	1:5
4.	Newspapers and Handouts	Daily	25	1:1
5.	Business Journals	Annual, Monthly, Daily	25	1:1
6.	National Pig Development Programme Manual	updated	5	1:5
7.	Breeder's manuals by breeders like Cobb and Issa Brown	updated	5	1:5
<b>B</b>	<b>Learning Facilities &amp; Infrastructure</b>			
8.	Lecture/Theory Room	(9* 8 sq. metres)	1	1:25
9.	Internet Connection	WI-FI, Dial-Up, Cable, Fixed-wireless,	1	1:25
10.	Forage farm	1	1	1:25
11.	machinery	Tractor, mowers balers	1	1:25

<b>C</b>	<b>Consumable Materials</b>			
12.	Flashcards	Alphabet, Numbers, Math	25	1:1
13.	Stationery	Printing Papers, and Exercise Books Sizes A4, A3, A2 etc	5 reams	1:5
<b>D</b>	<b>Tools And Equipment</b>			
14.	Wheelbarrow	Any model	1	1:25
15.	Scissors	LED.LCD, Laser	5	1:5
16.	Hand drill	Glass, melamine, porcelain	1	1:25
17.	Panga	Any five	5	1:5
18.	Measuring tape	Any five	5	1:5
19.	Spade	Any five	5	1:5
20.	String/line	Any five	5	1:5
21.	Surgical blades	In good condition	5	1:5
<b>F</b>	<b>Specimens</b>	easyvet.com		
22.	forage	Rhodes grass, lucerne	5each type	1:5