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
Total		**100**

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	• Written assessment • Practical • Projects • Third party report • Portfolio of evidence • Oral questions

	1.1.6. Shovel	
	1.1.7. Hoe	
	1.1.8. Water sprinklers	
	1.1.9. Planter	
	1.1.10. Wheelbarro	
	1.1.11. Hole digger	
	1.1.12. Fencing materials	
	1.2 Propagation materials	
	1.2.1 Seeds	
	1.2.2 Seedlings	
	1.2.3 Cuttings	
	1.2.4 Splits	
	1.2.5 Tubers	
	1.3 Land preparation	
	1.3.1 Good Agricultural Practices (GAP)	
	1.3.1.1 Liming	
	1.3.1.2 Mulching	
	1.4 Establishing propagation materials	
	1.4.1 Direct sowing	
	1.4.2 Broadcasting	
	1.4.3 Transplant	
	1.5 Forage management	
	1.5.1 Pastures	
	1.5.2 Fodder crops	
	1.6 Harvesting of forage.	

2.Conserve livestock forage	2.1 Quality assessment of forage
	2.2 Conservation of forages
	   2.2.1 Silage
	   2.2.2 Hay
		• Written assessment
		• Practical
		• Projects
		• Third party report

	2.3 Storage of forage 2.4 Forage production record 2.5 Waste management	• Portfolio of evidence • Oral questions

3. Formulate livestock rations	3.1 Feed formulation tools and equipment
	
	3.2 Animal feeds ingredients
	
	    3.2.1 Feed additives,
	
	    3.2.2 Bran
	
	    3.2.3 Mineral premixes
	
	3.3 Sourcing of animal feeds ingredients
	
	3.4 Weighing of animal feed ingredients
	
	3.5 Feed formulation methods
	
	    3.5.1 Pearson square
	
	    3.5.2 Trial and error
	
	    3.5.3 Computation method
	
	3.6 Packaging and storage of formulated feeds
	
	3.7 Waste management
		• Written assessment
		• Practical
		• Projects
		• Third party report
		• Portfolio of evidence
		• Oral questions

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)
A	**Learning Materials**			
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	**Learning Facilities & Infrastructure**			
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

C	**Consumable Materials**			
12.	Flashcards	Alphabet, Numbers, Math	25	1:1
13.	Stationery	Printing Papers, and Exercise Books Sizes A4, A3, A2 etc	5 reams	1:5
D	**Tools And Equipment**			
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
F	**Specimens**			
22.	forage	Rhodes grass, lucerne	5each type	1:5