

## BEEF CATTLE MANAGEMENT

**UNIT CODE:** 0811 351 10A

**TVET CDACC UNIT CODE:** AGR/CU/AP/CR/03/4/MA

### **Relationship to Occupational Standards**

This unit addresses the unit of competency: Manage Beef Animals

**Duration of Unit: 80 Hours**

### **UNIT DESCRIPTION**

This unit specifies competencies required to manage beef animals. It involves constructing beef cattle structures, carrying out beef cattle feeding, carrying out beef cattle breeding, carrying out calf management, performing beef cattle routine management practices, manage fattening stock, slaughtering beef cattle and marketing beef products.

### **Summary of Learning Outcomes**

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

<b>S/No</b>	<b>Learning Outcomes</b>	<b>Duration (Hours)</b>
1.	Construct beef cattle structures	20
3.	Carry out beef cattle feeding	5
4.	Carry out beef cattle breeding	10
5.	Carry out calf management	15
6.	Perform beef cattle routine management practices	15
7.	Manage fattening stock	10
8.	Slaughter beef cattle	5
<b>Total</b>		<b>80</b>

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

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Assessment</b>

		<b>Methods</b>
1. Construct beef cattle structures	1.1 Tools and equipment 1.2 Beef structures 1.2.1 Crushes 1.2.2 Milking parlor 1.2.3 Barn 1.2.4 Feeding facility 1.2.5 Cattle shed 1.2.6 Cattle dips 1.2.7 Feed storage facility 1.2.8 Farm office 1.3 Designing of beef structures 1.4 Construction of beef structures 1.5 Maintenance of beef structures 1.6 Beef structure maintenance records 1.7 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>
2. Carry out beef cattle feeding	2.1 Tools and equipment 2.2 Beef cattle feeds 2.2.1 Pasture forage 2.2.2 Hay 2.2.3 Silage 2.2.4 Straw 2.2.5 Grain by-products 2.3 Grouping of beef cattle based on nutritional requirements 2.3.1 Young stock 2.3.2 Steers 2.3.3 Fatteners 2.3.4 Finishers 2.4 Beef cattle feeding regime	<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>2.5 Beef cattle feeding based on their nutritional requirements</p> <p>2.6 Feed supplements</p> <p>    2.6.1 Minerals</p> <p>    2.6.2 Premixes</p> <p>    2.6.3 salts</p> <p>2.7 Beef feed intake evaluation</p> <p>2.8 Feed conversion efficiency evaluation</p> <p>2.9 Beef cattle feeding records</p> <p>2.10 Waste management</p>	
<p>3. Carry out beef cattle breeding</p>	<p>3.2 Breeding tools and equipment</p> <p>3.3 Beef cattle breeds</p> <p>    3.3.1 Angus</p> <p>    3.3.2 Hereford</p> <p>    3.3.3 Charolais</p> <p>    3.3.4 Simmental</p> <p>3.4 Signs of heat</p> <p>3.5 Estrus synchronization</p> <p>3.1 Flushing</p> <p>3.2 Beef cattle servicing</p> <p>3.3 Breeding methods and technologies</p> <p>    3.3.1 Artificial insemination</p> <p>    3.3.2 Natural method</p> <p>    3.3.3 Cross breeding</p> <p>    3.3.4 Pure breeding</p> <p>    3.3.5 Inbreeding</p> <p>    3.3.6 Embryo transfer</p> <p>3.4 Surrogate</p> <p>3.5 Care for In-calf beef</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>3.6 Steaming up</p> <p>3.7 Parturition management</p> <p>3.8 Breeding records</p>	
4. Carry out calf management	<p>4.1 Calf management tools, equipment and materials</p> <p>4.2 Preparation of calf pen</p> <p>4.3 Handling of calf at birth</p> <p>4.4 Feeding calf on colostrum</p> <p>4.5 Fostering of orphaned calves</p> <p>4.6 Preparation of artificial colostrum</p> <p>4.7 Methods of calf identification</p> <p>    4.7.1 Ear tagging</p> <p>    4.7.2 Ear notching</p> <p>    4.7.3 Branding</p> <p>    4.7.4 Neck chains</p> <p>    4.7.5 Straps with numbers</p> <p>4.8 Calf housing</p> <p>4.9 Introduction of calf to roughage feeding</p> <p>4.10 Disbudding of calfa and removal of extra mammary teats</p> <p>4.11 Calf weighing</p> <p>4.12 Monitoring of calf growth rate</p> <p>4.13 Calf weaning</p> <p>4.14 Management and disposal of wastes</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 eviden</li> <li>• Oral questions</li> </ul>
5. Perform beef cattle routine management practices	<p>5.1 Beef cattle identification methods</p> <p>    5.1.1 Ear tagging</p> <p>    5.1.2 Ear notching</p> <p>    5.1.3 Branding</p> <p>    5.1.4 Neck chains</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 eviden</li> </ul>

	<p>5.1.5 Straps with numbers</p> <p>5.1.6 Ear tattooing</p> <p>5.2 Dehorning and disbudding of beef cattle</p> <p>5.2.1 Hot iron</p> <p>5.2.2 Use of chemicals</p> <p>5.2.3 Use of Saws</p> <p>5.2.4 Electric method</p> <p>5.2.5 Disbudding rod</p> <p>5.2.6 Dehorning wire</p> <p>5.3 Castration of beef cattle</p> <p>5.4 Hoof trimming of beef cattle</p> <p>5.5 Culling</p> <p>5.6 Control of internal and external parasites</p> <p>5.6.1 Dipping</p> <p>5.6.2 Bush clearing</p> <p>5.6.3 Dusting</p> <p>5.6.4 Spraying</p> <p>5.6.5 Deworming</p> <p>5.6.6 Drenching</p> <p>5.7 Vaccination</p> <p>5.8 Cattle isolation and quarantine</p> <p>5.9 Provision of clean water ad-libitum</p>	<ul style="list-style-type: none"> <li>• Oral questions</li> </ul>
<p>6. Manage fattening stock</p>	<p>6.1 Tools and equipment</p> <p>6.2 Preparation of Feedlot facilities</p> <p>6.2.1 Feedlot pens</p> <p>6.2.2 Feed storage</p> <p>6.2.3 Feed processing mill</p> <p>6.2.4 Feed mixing/batching</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> </ul>

	<p>6.2.5 Feed bunks</p> <p>6.3 Selection of fattening stock</p> <p>6.4 Management practices for Fattening stock</p> <p>6.4.1 Vaccination</p> <p>6.4.2 Hoof care</p> <p>6.4.3 Deworming</p> <p>6.4.4 Disease and parasite control</p> <p>6.5 Monitoring of fattening stock</p> <p>6.6 Marketing of fattening stock</p> <p>6.7 Record keeping</p> <p>6.8 Waste management</p>	<ul style="list-style-type: none"> <li>• Oral questions</li> </ul>
<p>7. Slaughter beef cattle</p>	<p>7.1. Slaughtering tools, equipment and materials</p> <p>7.1.1. Knives</p> <p>7.1.2. Stunners</p> <p>7.1.3. Scalding tanks</p> <p>7.1.4. Gabrel and hoists</p> <p>7.1.5. Cutting boards and tables</p> <p>7.2. Preparation of slaughter house slab</p> <p>7.3. Pre-slaughter handling of beef cattle</p> <p>7.4. Humane slaughter of beef cattle</p> <p>7.5. Dressing of carcass</p> <p>7.6. Cleaning of the offal</p> <p>7.7. Preservation of dressed meat</p> <p>7.8. Transportation of dressed meat</p> <p>7.9. Handling of beef by-products</p> <p>7.10. Disposal of condemned waste materials</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>7.11. Cleaning of slaughterhouse and equipment</p> <p>7.12. Maintenance of slaughter house structures</p> <p>7.13. Record keeping</p>	
8. Market beef products	<p>8.1. Conducting market survey</p> <p>8.2. Transportation of cattle</p> <p>8.3. Beef products</p> <p>8.4. Marketing records maintenance</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>

### Suggested methods of delivery

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

### Recommended Resources for 25 trainee

S/No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
<b>A</b>	<b>Learning Materials</b>			
	Charts	Flip Charts Rules and Regulations	5	1:5
	Markers	whiteboard markers and permanent	5	1:5

		markers		
	Video clips Audio tapes	MP4, MP3	5	1:5
	Newspapers and Handouts	Daily	25	1:1
	Business Journals	Annual, Monthly, Daily	25	1:1
	Breeder's manuals by breeders like Cobb and Issa Brown	updated	5	1:5
<b>B</b>	<b>Learning Facilities &amp; Infrastructure</b>			
	Lecture/Theory Room	(9* 8 sq. metres)	1	1:25
	Internet Connection	WI-FI, Dial-Up, Cable, Fixed-wireless,	1	1:25
	Drinkers	1	1	1:25
.	Feeding trough	1	1	1:25
.	Grass	1	1	1:25
.	Shrub	Well equipped	1	1:25
.	<ul style="list-style-type: none"> <li>• Crushes</li> <li>• Milking parlor</li> <li>• Barn</li> <li>• Crushes, Feeding facility</li> <li>• Cattle shed, Cattle dips</li> <li>• Feed storage facility</li> <li>• dairy farm</li> <li>• Farm office</li> <li>• Pasture forage</li> </ul>	In good condition	1	1:25

	<ul style="list-style-type: none"> <li>• Hay, Silage</li> <li>• Straw</li> <li>• Grain by-products</li> </ul>			
<b>C</b>	<b>Consumable Materials</b>			
1.	Flashcards	Alphabet, Numbers, Math	25	1:1
2.	Stationery	Printing Papers, and Exercise Books Sizes A4, A3, A2 etc	5 reams	1:5
<b>D</b>	<b>Tools And Equipment</b>			
	Wheelbarrow	Any model	1	1:25
	Scissors	LED.LCD, Laser	5	1:5
	Hand drill	Glass, melamine, porcelain	1	1:25
	Panga	Any five	5	1:5
	Measuring tape	Any five	5	1:5
	Spade	Any five	5	1:5
	String/line	Any five	5	1:5
	Surgical blades	In good condition	5	1:5
	Ear Notchers	In good condition	5	1:5
	Ear tags	In good condition	5	1:5
	Neck chains	In good condition	5	1:5
	Straps with numbers	In good condition	5	1:5
	Branding iron		5	1:5
	<ul style="list-style-type: none"> <li>• Herd Test Buckets</li> <li>• Thermometer</li> </ul>		5	1:5
			5	1:5

<b>F</b>	<b>Specimens</b>			
1.	beef breeds	<ul style="list-style-type: none"><li>○ Angus</li><li>○ Hereford</li><li>○ Charolais</li><li>○ Simmental</li></ul>	1 each type	1:5