

- Problem solving
- Time management
- Data collection
- Numeracy
- Observation
- Negotiation
- Digital literacy
- Equipment calibration

### Required knowledge

The individual needs to demonstrate knowledge of:

- Principles of animal production
- Cattle selection and breeding
- Cattle nutrition
- Parasite and disease management in cattle
- Cattle value added products
- Cattle routine management practices
- Cattle structures
- Cattle production records

### EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

1. Critical aspects of competency	2. Assessment requires evidence that the candidate: <ul style="list-style-type: none"> <li>1.1 Selected site of dairy cattle structures based on LPM</li> <li>1.2 Kept maintenance records as per workplace requirements</li> <li>1.3 Grouped dairy cattle based on their nutritional requirements</li> <li>1.4 Determined dairy cattle feeding regime based on LPM</li> <li>1.5 Fed dairy cattle based on their nutritional requirements in accordance with LPM</li> </ul>
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	<p>1.6 Selected dairy cattle breeds based on traits of economic importance and farmer requirements</p> <p>1.7 Cleaned udder and pre-dipped according to LPM</p> <p>1.8 Carried mastitis test out based LPM</p> <p>1.9 Stimulated milk let down based on selected milking technique</p> <p>1.10 Carried out milking based on Essentials of Clean Milk Production Standard.</p> <p>1.11 Disinfected udder quarters as per the LPM</p> <p>1.12 Carried out cattle isolation and quarantine is to control notifiable diseases based on GAPs</p> <p>1.13 Sold dairy Cattle products are based on market demands</p> <p>1.14 Managed waste is with due regard to environment protection regulations</p>
2. Resource implication	<p>The following resources should be provided:</p> <p>2.1 Access to relevant workplace where assessment can take place</p> <p>2.2 Appropriately simulated environment where assessment can take place</p> <p>2.3 Materials relevant to the proposed assessment activity or tasks</p>
3. Method of assessment	<p>Competency in this unit may be assessed through:</p> <p>3.1 Written tests</p> <p>3.2 Questionnaires</p> <p>3.3 Oral questioning</p> <p>3.4 Projects</p> <p>3.5 Observation</p>
4. Context of assessment	<p>4.1 Competency elements must be assessed in a safe working environment</p> <p>4.2 Assessment may be conducted in a workplace or simulated environment</p>
5. Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</p>

## MANAGE BEEF ANIMALS

**UNIT CODE:** 0811 351 10A

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

### 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.

### ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace function.	These are assessable statements which specify the required level of performance for each of the elements. <i><b>Bold and italicized terms are elaborated in the Range.</b></i>
1. Construct beef cattle structures	1. 1 Tools, equipment and materials are assembled as per work requirements 1. 2 Site of <b>beef cattle structures</b> is selected based on LPM 1. 3 Beef cattle structures are designed according to Livestock Production Manual (LPM) 1. 4 Beef cattle structures are constructed based on livestock production manual 1. 5 Beef cattle structures are maintained as per workplace procedures 1. 6 Beef cattle structures construction and maintenance records are kept as per workplace requirements 1. 7 Waste is managed according to environmental protection regulations
2. Carry out beef cattle feeding	2.1 Tools, equipment and materials are assembled as per work requirements 2.2 <b>Beef cattle feeds</b> are identified as per the nutritional

	<p>requirements</p> <p>2.3 Beef cattle are grouped based on their nutritional requirements</p> <p>2.4 Beef cattle feeding regime is determined based on LPM</p> <p>2.5 Beef cattle are fed based on their nutritional requirements in accordance with LPM</p> <p>2.6 Feed supplements are provided according to beef cattle dietary requirements</p> <p>2.7 Feed intake is evaluated as per the LPM</p> <p>2.8 Feed conversion efficiency is evaluated based on productivity</p> <p>2.9 Beef cattle feeding record is generated as per the workplace procedures</p> <p>2.10 Waste is managed according to environmental protection regulations</p>
3. Carry out beef cattle breeding	<p>3.1 Breeding management tools, equipment and materials are assembled in accordance with LPM</p> <p>3.2 <b>Beef Cattle breeds</b> are identified based on LPM</p> <p>3.3 Beef Cattle breeds are selected based on traits of economic importance and farmer requirements</p> <p>3.4 Beef cows on heat are detected based on LPM</p> <p>3.5 Flushing is carried out as per LPM</p> <p>3.6 Service is performed based on the <b>breeding method and technologies</b> as per the LPM</p> <p>3.7 In-calf beef cows are provided care based on the LPM</p> <p>3.8 Steaming-up is carried out based on LPM</p> <p>3.9 Parturition is managed as per the LPM</p> <p>3.10 Breeding records are prepared as per work procedures</p>
4. Carry out calf management	<p>4.1 Calf management tools, equipment and materials are assembled as per the LPM</p> <p>4.2 Calf pens are prepared as per LPM</p> <p>4.3 Calf is handled at birth according to instructions in LPM</p> <p>4.4 Calf is fed colostrum according to LPM</p> <p>4.5 Calf is identified using suitable method in accordance with</p>

	<p>LPM, animal welfare regulations and work place policy</p> <p>4.6 Calf is housed based on production system, prevailing climatic conditions and age within LPM standards</p> <p>4.7 Calf is introduced to roughage feeding in accordance with LPM</p> <p>4.8 Calf is disbudded in accordance with animal welfare regulations and work place policy</p> <p>4.9 Calf is weighed in accordance with LPM instructions and work place policy</p> <p>4.10 Calf growth rate is monitored in accordance with principles of animal nutrition and breeding</p> <p>4.11 Calf is weaned in accordance with the LPM</p> <p>4.12 Waste is managed and disposed based on environmental protection regulations</p>
5. Perform beef cattle routine management practices	<p>5.1 Beef <b>Cattle identification method</b> is selected based on GAPs</p> <p>5.2 Beef Cattle are <b>dehorned</b> or disbudded based on GAPs</p> <p>5.3 Castration is performed as per the LPM and market requirements</p> <p>5.4 Overgrown hooves are trimmed based on GAPs</p> <p>5.5 Culling is performed based on workplace policy</p> <p>5.6 Internal and external parasites are controlled based on LPM and GAPs</p> <p>5.7 Vaccination is performed as per workplace policy, manufacturer's instructions and LPM</p> <p>5.8 Cattle isolation and quarantine is carried out to control notifiable diseases based on GAPs</p> <p>5.9 Beef cattle are provided with clean water ad-libitum as per LPM</p>
6. Manage fattening stock	<p>6.1 Tools, equipment and materials are assembled as per the LPM</p> <p>6.2 <b>Feedlot facilities</b> are prepared based on LPM</p> <p>6.3 Fattening stock are selected for finishing as per the market requirements</p> <p>6.4 <b>Management practices for fattening stock</b> are carried out based on LPM</p>

	<p>6.5 Fattening is monitored as per growth curve of beef cattle</p> <p>6.6 Fattened beef cattle are marketed based on market specifications</p> <p>6.7 Records are maintained as per the workplace procedures</p> <p>6.8 Waste is managed based on environmental protection regulations</p>
7. Slaughter beef cattle	<p>7.1 Tools, equipment and materials for slaughter are assembled based on the Kenya Meat Control Act</p> <p>7.2 Slaughter house/slab is prepared in accordance to the Kenya Meat Control Act</p> <p>7.3 Pre-slaughter handling of Beef cattle is carried out as per the Animal Welfare Act</p> <p>7.4 Humane slaughter of beef cattle is performed as per Animal Welfare Act</p> <p>7.5 Dressing of carcass is carried out in accordance with Kenya Meat Control Act</p> <p>7.6 Cleaning of the offal is done as per the workplace procedures</p> <p>7.7 Dressed meat is preserved as per the Kenya Meat Act</p> <p>7.8 Dressed meat is transported as per the Kenya Meat Control Act</p> <p>7.9 By-products are handled according to the Kenya Meat Control Act</p> <p>7.10 <b>Condemned materials</b> and wastes are disposed as per the Kenya Meat Control Act</p> <p>7.11 Cleaning of slaughterhouse and equipment is done as per Kenya Meat Control Act and environmental management regulations</p> <p>7.12 Slaughter structures are maintained as per Kenya Meat Control Act</p> <p>7.13 Records are generated based on the workplace record management guidelines</p>
8. Market Beef products	<p>8.1 Market survey is conducted based on Standard Survey guidelines</p> <p>8.2 Cattle is transported to the market based on Animal Welfare Act</p>

	8.3 Beef products are sold based on market requirements 8.4 Marketing records are maintained based on workplace guidelines
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## RANGE OF VARIABLES

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

RANGE	VARIABLE
1. Beef cattle structures may include but not limited to;	<ul style="list-style-type: none"> <li>• Crushes, Feeding facility</li> <li>• Cattle shed, Cattle dips</li> <li>• Feed storage facility</li> <li>• Farm office</li> </ul>
2. Beef cattle feeds may include but not limited to;	<ul style="list-style-type: none"> <li>• Pasture forage</li> <li>• Hay, Silage</li> <li>• Straw</li> <li>• Grain by-products</li> </ul>
3. Beef Cattle breeds may include but not limited to;	<ul style="list-style-type: none"> <li>• Angus</li> <li>• Hereford</li> <li>• Charolais</li> <li>• Simmental</li> </ul>
4. Breeding method and technologies may include but not limited to;	<ul style="list-style-type: none"> <li>• Artificial insemination</li> <li>• Natural method</li> <li>• Cross breeding</li> <li>• In breeding</li> <li>• Pure breeding</li> <li>• Embryo transfer</li> <li>• Surrogate</li> <li>• Signs of heat</li> <li>• Estrus synchronization</li> </ul>