

## MANAGE RANGELANDS

UNIT CODE: 0522 541 27A

TVET CDACC UNIT CODE: HE/OS/AHP/CC/28/6/MA

### UNIT DESCRIPTION

This unit describes competencies required by animal health technologist to manage rangelands. It involves the identification of basic principles of rangeland management, identifying various rangeland resources in East Africa, identifying biotic and abiotic environmental factors, determining the use of livestock as a management tool for range land and managing range land complexity.

### 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.<br><i>(Bold and italicized terms are elaborated in the Range)</i>                                                                                                                                                        |
| 1. Manage range land resources                                    | 1.1 Basic principles of rangeland management are applied as per work requirement<br>1.2 <b><i>Rangeland resources</i></b> are managed as per work requirement<br>1.3 Rangeland resources distribution across East Africa is determined as per work requirement<br>1.4 Soil and vegetation types are managed as per work requirement |
| 2. Apply knowledge of biotic and abiotic environmental factors    | 2.1 <b><i>Biotic and abiotic environmental factors</i></b> are managed as per work requirement<br>2.2 Interaction between biotic and biotic environmental factors is managed as per work requirement<br>2.3 Control measures of invasive spp. in rangelands are applied as per work requirement                                     |
| 3. Determine use of livestock as a management tool for range land | 3.1. <b><i>Grazing management systems</i></b> are managed as per livestock production manual<br>3.2. Knowledge of stocking density, land degradation, management and vegetation type and range land resilience are applied as per work requirement                                                                                  |

| <b>ELEMENT</b>                                                    | <b>PERFORMANCE CRITERIA</b>                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.<br><i>(Bold and italicized terms are elaborated in the Range)</i>                                                                                                       |
|                                                                   | 3.3. Knowledge of conflicts in land use is applied as per work requirement                                                                                                                                                                                                         |
| 4. Manage range land complexity                                   | 4.1 Knowledge of water availability, quality and conservation is applied as per work requirement.<br>4.2 Endangered species are managed as per work procedure<br>4.3 Rangeland inventory is prepared as per work procedure<br>4.4 Rangeland health managed as per work requirement |

## **RANGE**

| <b>Variable</b>                                                        | <b>Range</b>                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Range land resources include but not limited to                     | <ul style="list-style-type: none"> <li>● Grasslands</li> <li>● Shrub lands</li> <li>● Woodlands</li> <li>● Wetlands</li> <li>● Savannas</li> <li>● Chaparrals</li> <li>● Steppes</li> <li>● Tundra.</li> <li>● Forest canopy</li> <li>● Semi-arid lands</li> <li>● Arid lands.</li> </ul> |
| 2. Biotic and abiotic environmental factors include but not limited to | <ul style="list-style-type: none"> <li>● Biotic factors</li> <li>● Abiotic factors</li> </ul>                                                                                                                                                                                             |
| 3. Grazing management systems include but not limited to               | <ul style="list-style-type: none"> <li>● Paddockging</li> <li>● Rotational grazing</li> </ul>                                                                                                                                                                                             |

## **REQUIRED SKILLS AND KNOWLEDGE**

This section describes the skills and knowledge required for this unit of competency.

## Required skills

The individual needs to demonstrate the following skills

- Wildlife management skills
- Animal handling skills
- Communication skills

## Required knowledge

The individual needs to demonstrate knowledge of:

- Animal production systems
- Fundamentals of agricultural economics
- Animal Welfare Ethics and Law
- Veterinary Surgeons and Paraprofessionals Act

## EVIDENCE GUIDE

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

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|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Critical Aspects of Competency | <p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"><li>1.1 Applied basic principles of rangeland management as per work requirement</li><li>1.2 Managed soil and vegetation types are managed as per work requirement</li><li>1.3 Managed biotic and abiotic environmental factors as per work requirement</li><li>1.4 Applied control measures of invasive spp. in rangelands as per work requirement</li><li>3.5 Managed Grazing management systems as per livestock production manual</li><li>3.6 Applied knowledge of stocking density, land degradation, management and vegetation type and range land resilience as per work requirement</li></ul> |
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|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                        | <p>3.7 Managed endangered species as per work procedure</p> <p>3.8 Prepared rangeland inventory as per work procedure</p> <p>3.9 Managed rangeland health as per work requirement</p>                                                            |
| 2. Resource implications               | <p>The following resources must be provided:</p> <p>2.1 Appropriately simulated environment where assessment can take place</p> <p>2.2 Access to relevant work environment</p> <p>2.3 Resources relevant to the proposed activities or tasks</p> |
| 3. Methods of assessment               | <p>Competency may be assessed through:</p> <p>3.1 Observation</p> <p>3.2 Oral questioning</p> <p>3.3 Written test</p> <p>3.4 Portfolio of Evidence</p> <p>3.5 Interview</p> <p>3.6 Third party report</p>                                        |
| 4. Context of assessment               | <p>Competency may be assessed in a:</p> <p>Workplace or simulated workplace</p>                                                                                                                                                                  |
| 5. Guidance information for assessment | <p>Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended.</p>                                                                                                                             |