



**REPUBLIC OF KENYA**

**NATIONAL OCCUPATIONAL STANDARDS**

**FOR**

**AGRICULTURE AND EXTENSION TECHNICIAN**

**LEVEL 5**

**(CYCLE 3) PROGRAMME CODE: 0811 454A**



**TVET CDACC**  
**P.O. BOX 15745-00100**  
**NAIROBI**

## REAR RUMINANT ANIMALS

UNIT CODE: 0811 451 10A

TVET CDACC UNIT CODE: AGR/OS/EXT/CR/05/4/MA

### UNIT DESCRIPTION

This unit specifies competencies required to produce ruminant animals. It entails breeding ruminant animals, feeding ruminant animals, managing ruminant animal parasites and diseases, carrying out ruminant animals' routine management practices and marketing ruminant products.

### ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the <b>key outcomes</b> which makeup <b>work place function</b> .	PERFORMANCE CRITERIA These are <b>assessable</b> 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. Breed Ruminant animal	1.1 <i><b>Breeding tools</b></i> and <i><b>equipment</b></i> are assembled as per work requirement 1.2 Breeding stock is selected as per work procedure 1.3 Service of breeding Stock is carried out as per work procedure 1.4 Breeding record is prepared as per work procedure
2. Feed Ruminant animals	2.1 Ruminant <i><b>animal feeds</b></i> are identified as per animal nutritional requirement 2.2 Ruminant feed ration is formulated as per animal feeding standard manual 2.3 Feed quantity is determined as per animal nutritional requirement 2.4 Feeding record is prepared as per work procedure
3. Manage Ruminant parasites	3.1 Parasite prevention and control schedule is developed as per work requirement 3.2 <i><b>PPEs</b></i> are worn as per work requirement

	<p>3.3 Materials and equipment for parasite control are assembled as per work requirement</p> <p>3.4 <b><i>Parasites control method</i></b> is applied based on type of parasite being controlled</p> <p>3.5 Parasite control record is prepared as per work procedure</p> <p>3.6 Parasite control wastes are managed as per work procedure</p>
4. Manage ruminant diseases	<p>4.1 Disease prevention and control schedule is developed as per work requirement</p> <p>4.2 PPEs are worn as per work requirement</p> <p>4.3 Materials and equipment for disease control are assembled as per work requirement</p> <p>4.4 <b><i>Disease control method</i></b> is applied as per work requirement</p> <p>4.5 Health record is prepared as per work procedure</p> <p>4.6 Disease control wastes are managed as per work procedure</p>
5. Carry out ruminant routine management practices	<p>5.1 <b><i>Routine management practice</i></b> schedule is prepared as per work requirement</p> <p>5.2 PPEs are worn as per work requirement</p> <p>5.3 Materials and equipment are assembled as per work requirement</p> <p>5.4 Ruminant routine management procedure is performed as per work requirement</p> <p>5.5 <b><i>Routine management practice record</i></b> are prepared as per work requirement</p>
6. Market ruminant products	<p>6.1 <b><i>Ruminant products</i></b> are processed as per product requirement</p> <p>6.2 Ruminant products are preserved as per product requirement</p> <p>6.3 Ruminants products are distributed as per product requirement</p> <p>6.4 Records are prepared as per work procedures</p>

## RANGE

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

Variable	Range
1. Breeding tools and equipment include but not limited to	<ul style="list-style-type: none"><li>• Animal pregnancy testing kit</li><li>• Hormone testing kit</li><li>• Semen collection kit</li><li>• Ovulation prediction monitors</li></ul>
2. Animal feeds include but not limited to	<ul style="list-style-type: none"><li>• Concentrates</li><li>• Forage</li><li>• Pastures</li></ul>
3. PPEs include but not limited to	<ul style="list-style-type: none"><li>• Gloves</li><li>• Overalls</li><li>• Gumboots</li><li>• Head gear</li><li>• Face mask</li></ul>
4. Parasites control method	<ul style="list-style-type: none"><li>• Deworming</li><li>• Spraying</li><li>• Dipping</li></ul>
5. Disease control method	<ul style="list-style-type: none"><li>• Vaccination</li><li>• Quarantine</li><li>• Vector control</li><li>• Adequate production</li></ul>

6. Routine management practice	<ul style="list-style-type: none"> <li>• Identification</li> <li>• Milking</li> <li>• Dehorning</li> <li>• Disbudding</li> <li>• Hoof trimming</li> <li>• Docking</li> <li>• Removal of extra teats</li> <li>• Shearing</li> <li>• Castration</li> </ul>
7. Routine management practice record	<ul style="list-style-type: none"> <li>• Breeding records</li> <li>• Production records</li> <li>• Feeding records</li> <li>• Health records</li> </ul>
8. Ruminant products include but not limited to:	<ul style="list-style-type: none"> <li>• Milk</li> <li>• Meat</li> <li>• Mutton</li> <li>• Wool</li> <li>• Skins</li> <li>• Hides</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:

- Handling tools and equipment
- Animal handling
- Communication skills
- Digital skills

- Occupational health and safety

## Required knowledge

The individual needs to demonstrate knowledge of:

- Genetics
- Anatomy and physiology
- Basic pathology

## EVIDENCE GUIDE

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

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Selected breeding stock as per work procedure</li> <li>1.2 Identified ruminant animal feeds as per animal nutritional requirement</li> <li>1.3 Formulated ruminant feed ration as per animal feeding standard manual</li> <li>1.4 Determined feed quantity as per animal nutritional requirement</li> <li>1.5 Applied parasites control method based on type of parasite being controlled</li> <li>1.6 Applied disease control method as per work requirement</li> <li>1.7 Performed ruminant routine management procedure as per work requirement</li> <li>1.8 Ruminant products are preserved as per product requirement</li> <li>1.9 Records are prepared as per work procedures</li> </ul>
--	---

2. Resource Implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>2.1 Appropriately simulated environment where assessment can take place</li> <li>2.2 Access to relevant workplace assessment environment</li> <li>2.3 Resources relevant to the proposed assessment activity or tasks</li> </ul>
3. Methods of Assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> <li>3.1 Practical assessment</li> <li>3.2 Project</li> <li>3.3 Portfolio of evidence</li> <li>3.4 Third party report</li> <li>3.5 Written assessment</li> <li>3.6 Oral assessment</li> </ul>
4. Context of Assessment	<p>This competency may be assessed in a workplace or in a 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>