

## MANAGE LIVESTOCK PARASITES UNIT

CODE: 0841 551 38A

TVET CDACC UNIT CODE: HE/OS/AHP/CR/09/6/MA

### UNIT DESCRIPTION

This unit describes competencies required by animal health technologist to apply parasitology in disease control. It involves managing livestock nematodes, livestock trematodes, livestock cestodes and livestock protozoa.

### ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA <i>(Bold and italicized terms are elaborated in the Range)</i>
1. Manage livestock nematodes	1.1 <i>PPEs</i> are donned as per work requirements. 1.2 <i>Tools and equipment</i> are identified and assembled as per work requirement 1.3 <i>Livestock nematode</i> is identified as per work procedure 1.4 Affected livestock is treated as per VMD guidelines 1.5 Livestock nematode is prevented and controlled as per work requirement
2. Manage livestock trematodes	2.1 PPEs are donned as per work requirements. 2.2 Tools and equipment are assembled as per the work requirement 2.3 <i>Livestock trematode</i> is identified as per work procedure 2.4 Affected livestock is treated as per VMD guidelines 2.5 Livestock trematode is prevented and controlled as per work requirement
3. Manage livestock cestodes	3.1 PPEs are donned as per work requirements. 3.2 Tools and equipment are assembled as per the work requirement 3.3 <i>Livestock cestode</i> is identified as per work procedure 3.4 Affected livestock is treated as per VMD guidelines 3.5 Livestock cestode is prevented and controlled as per work requirement

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>(Bold and italicized terms are elaborated in the Range)</i>
4. Manage livestock arthropods	4.1 PPEs are donned as per work requirement. 4.2 Tools and equipment are assembled as per work requirement 4.3 <b><i>Livestock arthropod</i></b> is identified as per work procedure 4.4 Affected livestock is treated as per VMD guidelines 4.5 Livestock arthropod is prevented and controlled as per work requirement
5. Manage livestock protozoa	5.1 <b><i>PPEs</i></b> are donned as per work requirement. 5.2 <b><i>Tools and equipment</i></b> are assembled as per work requirement 5.3 <b><i>Livestock protozoon</i></b> is identified as per work procedure 5.4 Affected livestock is treated as per VMD guidelines 5.5 Livestock protozoon is prevented and controlled as per work requirement

## **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.

<b>Variable</b>	<b>Range</b>
1. PPEs may include but not limited to:	<ul style="list-style-type: none"> <li>● Gloves</li> <li>● Overall</li> <li>● Dust coats</li> <li>● Gum boots</li> <li>● Face masks</li> </ul>
2. Tools and equipment may include but not limited to:	<ul style="list-style-type: none"> <li>● Microscope</li> <li>● Centrifuge</li> <li>● Microscope slides</li> <li>● Forceps</li> </ul>

	<ul style="list-style-type: none"> <li>● Magnifying glass</li> <li>● Incubator</li> <li>● Refrigerator</li> <li>● Autoclave</li> <li>● Hot air oven</li> <li>● Cover slips</li> <li>● McMaster Chamber</li> </ul>
3. Livestock nematodes include but not limited to:	<ul style="list-style-type: none"> <li>● <i>Ascarids</i></li> <li>● <i>Haemonchus</i></li> <li>● <i>Ostertagia</i></li> <li>● <i>Trychostrongylus</i></li> <li>● <i>Cooperia</i></li> <li>● <i>Trichuris</i></li> <li>● <i>Oesophagostomum</i></li> <li>● <i>bunnostomum</i></li> </ul>
4. Livestock trematodes include but not limited to:	<ul style="list-style-type: none"> <li>● <i>Fasciola</i></li> <li>● <i>Paraphistosomes</i></li> <li>● <i>Schistosomes</i></li> </ul>
5. Livestock cestodes include but not limited to:	<ul style="list-style-type: none"> <li>● <i>Taenia</i></li> <li>● <i>Ecchinococcus</i></li> <li>● <i>Hymenolepsis</i></li> </ul>
6. Livestock arthropods include but not limited to:	<ul style="list-style-type: none"> <li>● Insects</li> <li>● Arachnids</li> <li>● Myriapods</li> <li>● Crustaceans</li> </ul>
7. Livestock protozoon include but not limited to	<ul style="list-style-type: none"> <li>● <i>Theileria</i></li> <li>● <i>Eimeria</i></li> <li>● <i>Trypanosomes</i></li> <li>● <i>Anaplasma</i></li> <li>● <i>Toxoplasma</i></li> </ul>
8. Samples may include but are not limited to:	<p>8.1. Urine</p> <p>8.2. Stool</p>

	8.3. Blood 8.4. Swabs 8.5. Sputum 8.6. Aspirates and Biopsies
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**Required Knowledge**

- Veterinary parasitology
- General laboratory practices
- Safety procedures and PPEs
- Standard procedures
- Set regulation and code of ethics
- Sample collection
- Microscopy
- Laboratory waste management

**Skills Required**

- Analytical
- Technical
- Communication
- Troubleshooting
- Sample handling
- Critical thinking
- Problem solving
- Management
- Reporting
- Interpretation
- Computer

**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	1.1 Donned PPEs as per work requirements.
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Competency	<p>1.2 Assembled Tools and equipment as per work procedure</p> <p>1.3 Identified Livestock nematode as per work procedure</p> <p>1.4 Treated affected livestock as per VMD guidelines</p> <p>1.5 Prevented and controlled livestock nematode as per work requirement</p> <p>1.6 Identified livestock trematode as per work procedure</p> <p>1.7 Treated affected livestock as per VMD guidelines</p> <p>1.8 Prevented and controlled livestock trematode as per work requirement</p> <p>1.9 Identified livestock cestode as per work procedure</p> <p>1.10 Prevented and controlled livestock cestode as per work requirement</p> <p>1.11 Identified livestock arthropod as per work procedure</p> <p>1.12 Prevented and controlled livestock arthropodas per work requirement</p> <p>1.13 Identified livestock protozoon as per work procedure</p> <p>1.14 Prevented and controlled livestock protozoon 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. Written tests</p> <p>3.2. Interview</p> <p>3.3. Observation</p>
4. Context of assessment	<p>Competency may be assessed in a:</p>

	Workplace or simulated workplace
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.