PARASITOLOGY

UNIT CODE: 0841 451 33A

TVET CDACC UNIT CODE: HE/CU/AHP/CR/01/5/MA

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Manage livestock parasites.

Unit Duration: 50 hours

Unit Description

This unit describes competencies required by animal health and production technician to manage livestock parasites. It involves managing livestock nematodes, livestock trematodes, livestock cestodes, arthropods and livestock protozoa.

Summary of Learning Outcomes

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

S/No	Learning Outcomes	Duration (Hours)
1.	Manage livestock nematodes	10
2.	Manage livestock trematodes	10
3.	Manage livestock cestodes	10
4.	Manage livestock arthropods	10
5.	Manage livestock protozoa	10
Total		**50**

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Methods of assessment
1. Manage livestock nematodes	1.1 PPEs 1.1.1 Glove 1.1.2 Overall 1.1.3 Dust coat	● Practical ● Project ● Written tests ● Third party report

	1.1.4 Gum boots	● Portfolio of evidence

	1.1.5 Face masks	● Oral questions
	1.2 Tools and equipment	
	1.2.1 Microscope	
	1.2.2 Centrifuge	
	1.2.3 Microscope slides	
	1.2.4 Forceps	
	1.2.5 Magnifying glass	
	1.2.6 Incubator	
	1.2.7 Refrigerator	
	1.2.8 Autoclave	
	1.2.9 Air oven	
	1.2.10 Cover slips	
	1.2.11 McMaster Chamber	
	1.3 Livestock samples collection for lab analysis	
	1.3.1 Urine	
	1.3.2 Stool	
	1.3.3 Blood	
	1.3.4 Swabs	
	1.3.5 Sputum	
	1.3.6 Aspirates and Biopsies	
	1.4 Livestock nematode	
	1.4.1 Ascarids	
	1.4.2 Haemonchus	
	1.4.3 Ostertagia	
	1.4.4 Trychostrongylus	
	1.4.5 Cooperia	
	1.4.6 Trichuris	
	1.4.7 Oesophagostomum	
	1.4.8 Bunostomum	
	1.5 Treatment of affected livestock	
	1.6 Nematode prevention and control	
2. Manage	2.1 Livestock trematodes	● Practical

livestock trematodes	2.1.1 Fasciola 2.1.2 Paraphistosomes 2.1.3 Schistosomes 2.2 Livestock trematode treatment 2.3 Trematode prevention and control	• Project • Written tests • Third party report • Portfolio of evidence • Oral questions

3. Manage livestock cestodes	3.1 Livestock cestodes
	   3.1.1 Taenia
	   3.1.2 Echinococcus
	   3.1.3 Hymenolepis
	3.2 Livestock cestodes treatment.
	3.3 Cestodes is prevention and control
		• Practical
		• Project
		• Written tests
		• Third party report
		• Portfolio of evidence
		• Oral questions

4. Manage livestock arthropods	4.1 Livestock arthropods
	   4.1.1 Insects
	   4.1.2 Arachnids
	   4.1.3 Myriapods
	   4.1.4 Crustaceans
	4.2 Livestock arthropods treatment.
	4.3 Prevention and control of arthropods
		• Practical
		• Project
		• Written tests
		• Third party report
		• Portfolio of evidence
		• Oral questions

5. Manage livestock protozoa	5.1 Livestock protozoa
	   5.1.1 Theileria
	   5.1.2 Eimeria
	   5.1.3 Trypanosomes
	   5.1.4 Anaplasma
	   5.1.5 Toxoplasma
	5.2 Livestock protozoon treatment
	5.3 Prevention and control of protozoa
		• Practical
		• Project
		• Written tests
		• Third party report
		• Portfolio of evidence
		• Oral questions

Suggested Methods of Delivery

- Demonstration
- Practical
- Field training
- Projects
- Discussions

- Direct instruction

Recommended Resources for 25 trainees

S/NO	Category/Item	Description/specification	Qty	Recommended ratio (item: trainee)
1.	Projector	EPSOM	1	1:25
2.	Whiteboard/smartboard	2.5 By 1.5.M	1	1:25
3.	Desktop/computer		1	1:25
4.	Classroom	Well-lit with 25 seats	1	1:25
5.	Functional livestock farm		1	1:25
6.	Fully equipped Microbiology laboratory		1	1:25
7.	Library	Equipped with parasitology books and E- section	1	1:25
8.	Microscope		5	1:5
9.	Centrifuge		5	1:5
10.	Microscope slides		Enough	-
11.	Forceps		Enough	-
12.	Magnifying glass		Enough	
13.	Incubator		1	1:25
14.	Refrigerator		1	1:25
15.	Autoclave		1	1:25
16.	Air oven		1	1:25
17.	Cover slips		Enough	-
18.	McMaster Chamber		1	1:25
19.	Microscope		5	1:5
20.	Centrifuge		1	1:25