

MICROBIAL DISEASES

UNIT CODE: 0841 451 30A

TVET CDACC UNIT CODE: HE/CU/AHP/CR/03/5/MA

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Manage microbial diseases.

Unit duration: 50 hours

Unit Description

This unit specifies the competencies required by an animal health and production to manage microbial diseases. It involves managing bacterial, viral and fungal livestock diseases.

Summary of Learning Outcomes

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

S/No	Learning Outcomes	Duration (Hours)
1.	Manage bacterial diseases	20
2.	Manage viral diseases	15
3.	Manage fungal diseases	15
Total		50

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Methods of assessment
1. Manage bacterial diseases	1.1. Introduction to bacterial diseases 1.1.1. Anthrax 1.1.2. Black-quarter 1.1.3. Brucellosis 1.1.4. Tuberculosis 1.1.5. CCPP 1.1.6. CBPP 1.1.7. Pasteurellosis 1.2. Manage bacterial diseases	<ul style="list-style-type: none">● Practical● Project● Written tests● Third party report● Portfolio of evidence● Oral questions

	<p>1.2.1. Epidemiology</p> <p>1.2.2. Pathogenesis</p> <p>1.2.3. Aetiology</p> <p>1.2.4. Diagnosis.</p> <p>1.2.5. Treatment.</p> <p>1.3. Prevention and control</p> <p>1.4. Laboratory equipment</p> <ul style="list-style-type: none"> ● Microscope ● Slides ● Bunsen burner ● Centrifuge ● Spatula ● Cover slip ● Beakers ● Petri dishes ● Inoculating wire ● Test tubes ● Microbiological specimen <p>1.5. PPEs</p> <ul style="list-style-type: none"> ● Gloves ● Dust coat ● Closed shoes ● Face mask 	
<p>2. Manage viral diseases</p>	<p>2.1. Introduction to viral diseases</p> <p>2.1.1. Rabies</p> <p>2.1.2. Lumpy skin disease</p> <p>2.1.3. Rift Valley Fever</p> <p>2.1.4. Foot and Mouth Disease</p> <p>2.1.5. Swine Influenza</p> <p>2.1.6. New Castle Disease</p> <p>2.1.7. Infectious Bronchitis</p> <p>2.1.8. Fowl pox</p> <p>2.2. Manage viral diseases</p>	<ul style="list-style-type: none"> ● Practical ● Project ● Written tests ● Third party report ● Portfolio of evidence ● Oral questions

	<p>2.2.1. Epidemiology</p> <p>2.2.2. Pathogenesis</p> <p>2.2.3. Aetiology</p> <p>2.2.4. Diagnosis.</p> <p>2.2.5. Treatment.</p> <p>2.3. Prevention and control</p> <p>2.4. Tools and equipment</p> <p>2.4.1. Thermometer</p> <p>2.4.2. Stethoscope</p> <p>2.4.3. Microscope</p> <p>2.4.4. Syringes & Needles</p> <p>2.4.5. Automatic Syringes</p> <p>2.4.6. Cool boxes</p> <p>2.4.7. Scalpel blades</p> <p>2.4.8. Surgical spirit</p> <p>2.5. PPEs</p> <p>2.5.1. Gloves</p> <p>2.5.2. Overall</p> <p>2.5.3. Dustcoats</p> <p>2.5.4. Gum boots</p> <p>2.5.5. Face masks</p>	
<p>3. Manage fungal diseases</p>	<p>3.1. Introduction to fungal diseases</p> <p>3.1.1. Candidiasis</p> <p>3.1.2. Aspergillosis</p> <p>3.1.3. Dermatophylosis</p> <p>3.1.4. Manage fungal diseases</p> <p>3.1.5. Epidemiology</p> <p>3.1.6. Pathogenesis</p> <p>3.1.7. Aetiology</p> <p>3.1.8. Diagnosis.</p> <p>3.1.9. Treatment.</p> <p>3.2. Prevention and control.</p> <p>3.3. Tools and equipment</p>	<ul style="list-style-type: none"> ● Practical ● Project ● Written tests ● Third party report ● Portfolio of evidence ● Oral questions

	3.3.1. Thermometer 3.3.2. Stethoscope 3.3.3. Microscope 3.3.4. Syringes & Needles 3.3.5. Automatic Syringes 3.3.6. Cool boxes 3.3.7. Scalpel blades 3.3.8. Surgical spirit 3.4. PPEs <ul style="list-style-type: none"> ● Gloves ● Overall/Dustcoats ● Gum boots ● Face masks 	
--	---	--

Suggested Methods of Delivery

- Demonstration
- Practical
- Field training
- Discussions
- Direct instruction
- Projects

Recommended Resources for 25 Trainees

S/No.	Category/Item	Description/Specification	Quantity	Recommended Ratio (Item: Trainee)
A	Learning materials			
1.	Projector	EPSON	1	1:25
2.	Whiteboard/Smartboard	2.5 By 1.5.M	1	1:25
3.	Desktop/computer		1	1:25
B	Learning Facilities & Infrastructure			
4.	Lecture/Theory room	With at least 25 seats	1	1:25
5.	Library	Equipped with microbial diseases books and E- section	1	1:25

6.	Microbiology laboratory		1	1:25
7.	Holding crush		1	1:25
C	Consumable Materials			
8.	Syringes & Needles		Enough	-
9.	Scalpel blades		Enough	-
10.	Surgical spirit		Enough	-
11.	Swabs		Enough	-
D	Tools and Equipment			
12.	Microscope		5	1:5
13.	Slides		25	1:1
14.	Bunsen burner		5	1:5
15.	Centrifuge		25	1:1
16.	Spatula		Enough	-
17.	Coverslip		Enough	-
18.	Beakers		Enough	-
19.	Petri dishes		Enough	-
20.	Inoculating wire		25	1:1
21.	Test tubes		Enough	
22.	Microbiological specimen		25	1:1
23.	Sample collection tool		25	1:1
24.	Thermometer		25	1:1
25.	Stethoscope		25	1:1
26.	Automatic Syringes		25	1:1
27.	Cool boxes		1	1:25