MICROBIAL DISEASES

ISCED UNIT CODE: 0841 551 35A

TVET CDACC UNIT CODE: HE/CU/AHP/CR/02/6/MA

Relationship to Occupational Standards

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

UNIT DURATION: 90 Hours

Unit Description

This unit specifies the competencies required by an animal health and production technologist 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	**30**
2.	Manage viral diseases	**30**
3.	Manage fungal diseases	**30**
Total		**90**

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcomes	Content	Suggested Assessment Methods
1. Manage bacterial diseases	1.1. PPE's for bacterial diseases management 1.1.1. Gloves 1.1.2. Gumboots 1.1.3. Overall 1.1.4. Dustcoats 1.1.5. Face masks	• Practical • Project • Portfolio of evidence • Third party report • Written assessment • Oral questioning

1.2. Tools, equipment and apparel for bacterial diseases management.
   1.2.1. Thermometer
   1.2.2. Stethoscope
   1.2.3. Microscope
   1.2.4. Syringes & Needles
   1.2.5. Automatic Syringes
   1.2.6. Cool boxes
   1.2.7. Scalpel blades
   1.2.8. Surgical spirit
1.3. Manage bacterial diseases
1.4. Bacterial diseases identification
   1.4.1. Anthrax
   1.4.2. Black-quarter
   1.4.3. Brucellosis
   1.4.4. Tuberculosis
   1.4.5. CCPP
   1.4.6. CBPP
   1.4.7. Pasteurellosis
1.5. Bacterial diagnosis
   1.5.1. Epidemiology
   1.5.2. Aetiology
   1.5.3. Clinical signs
   1.5.4. Diagnosis
   1.5.5. Pathogenesis
   1.5.6. Prevention and Control.
   1.5.7. Treatment
   1.5.7.1. Antibiotics	

| 2. Manage viral diseases. | 2.1. Introduction to viral diseases.
2.2. Personal protective equipment for managing and testing diseases
2.3. Manage viral diseases
2.4. Identify Viral disease
    2.4.1. Rabies
    2.4.2. Lumpy skin disease
    2.4.3. Rift Valley Fever
    2.4.4. Foot and Mouth Disease
    2.4.5. Swine Influenza
    2.4.6. New Castle Disease
    2.4.7. Infectious Bronchitis
    2.4.8. Fowl pox
2.5. Viral disease diagnosis
    2.5.1. Epidemiology
    2.5.2. A etiology
    2.5.3. Diagnosis
    2.5.4. Pathogenesis
    2.5.5. Treatment
    2.5.6. Prevention and Control
2.6. Viral diseases diagnostic tests
    2.6.1. Molecular test
    2.6.2. PCR
    2.6.3. Serological test
    2.6.4. Antigen test | • Practical
• Project
• Portfolio of evidence
• Third party report
• Written assessment
• Oral questioning |
| 3. Manage fungal diseases | 3.1. Introduction to fungal diseases.
3.2. Manage fungal diseases
3.3. Fungal diseases identification
    3.3.1. Candidiasis
    3.3.2. Aspergillosis
    3.3.3. Dermatophylosis
    3.3.4. Taeniosis | • Practical
• Project
• Portfolio of evidence
• Third party report
• Written assessment
• Oral questioning |

| | 3.4. Fungal diseases diagnosis

    3.4.1. Epidemiology

    3.4.2. Aetiology

    3.4.3. Clinical signs

    3.4.4. Diagnosis

    3.4.5. Pathogenesis

    3.4.6. Treatment

    3.4.7. Prevention and Control.

3.5. Carry out fungal diagnosis, treatment and control

    3.5.1. Microscopy

    3.5.2. Fungal culture tests

    3.5.3. Copper sulphate. | |

Suggested Methods of delivery

- Practical
- Projects
- Demonstrations
- Group discussion
- Direct instructions

Recommended Resources for 25 trainees

S/No.	Category/Item	Description/Specification	Quantity	Recommended Ratio (Item: Trainee)
1.	Learning materials			
2.	Projector		1	1:25
3.	Whiteboard/Smart board		1	1:25
4.	Desktop/computer		1	1:25
5.	Lecture/Theory room		1	1:25
6.	Animal farm	As guided by KVB	1	1:25

7.	Library		1	1:25
8.	E-Library		1	1:25
9.	Drenching gun		5	1:5
10.	Syringes and needle		25	1:1
11.	Scalpel blades		25	1:1
12.	Microscope		5	1:5
13.	Crush		1	1:25
14.	Thermometer		25	1:1
15.	Stethoscope		25	1:1
16.	Weigh band		5	1:5
17.	Cool box		5	1:5