

## ARTIFICIAL CHICK BROODING MANAGEMENT

**UNIT CODE:**0811 241 06A

**TVET CDACC UNIT CODE:** POL/CU/KE/CR/03/4/MA

### Relationship to Occupational Standards

This unit addresses the Unit of Competency: Manage Artificial Chick Brooding

**Duration of Unit:** 100 hours

### Unit Description

This unit specifies the competencies required to manage artificial chick brooding. It involves preparing chick brooder, acquiring day-old chicks, feeding brooding chicks, managing brooder house micro climate and maintaining brooder hygiene. It also entails performing chick vaccination, controlling poultry vermin, controlling poultry predators and monitoring chick performance.

### Summary of Learning Outcomes

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

S/No	Learning Outcomes	Duration (Hours)
1.	Prepare chick brooder	20
2.	Acquire day old chicks	10
3.	Manage brooder house micro climate	20
4.	Maintain brooder hygiene	10
5.	Perform chick vaccination	10
6.	Control <i>Kienyeji</i> chicken predators	10
7.	Control <i>Kienyeji</i> chicken vermin	10
8.	Monitor chick performance	10
<b>Total</b>		<b>100</b>

### Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1 Prepare day old chick brooder	1.1. Suitable brooder construction materials <ul style="list-style-type: none"> <li>1.1.1. Cardboard</li> <li>1.1.2. Wooden pegs</li> <li>1.1.3. Litter material</li> </ul> 1.2. Brooder assembly guidelines           1.3. Cleaning and disinfection of brooder           1.4. Types of bedding materials           1.5. Suitable bedding materials           1.6. Sterilization of bedding materials           1.7. Chick brooder equipment <ul style="list-style-type: none"> <li>1.7.1. Brooder thermometer</li> <li>1.7.2. Charcoal jiko</li> <li>1.7.3. Infra-red bulb</li> <li>1.7.4. Gas burner</li> <li>1.7.5. Kerosene lamb</li> <li>1.7.6. Chick feeder</li> <li>1.7.7. Chick drinker</li> <li>1.7.8. Hygrometer</li> </ul> 1.8. Cleaning and sterilization of brooder equipment.           1.9. Installation of brooder equipment <ul style="list-style-type: none"> <li>1.9.1. Types of brooder equipment</li> <li>1.9.2. Standard operation of the equipment</li> <li>1.9.3. Time schedule for placement</li> </ul>	Written tests Observation Oral questions Third party report Interviewing Project

	<p>of various equipment</p> <p>1.10. Test-running the equipment</p>	
2 Acquire day-old chicks	<p>2.1 Handling of day-old chicks</p> <p>2.2 Preparing for transportation</p> <p>2.3 Transportation of chicks</p> <ul style="list-style-type: none"> <li>• Cages for transportation</li> <li>• Time of transportation</li> <li>• Safety during transportation</li> </ul>	<p>Written tests</p> <p>Observation</p> <p>Oral questions</p> <p>Third party report</p> <p>Interviewing</p> <p>Project</p>
3 Feed day old chicks	<p>3.1 Suitable feeds for day-old chicks</p> <ul style="list-style-type: none"> <li>• Feed forms (mash or crumbs)</li> <li>• Types of feeds</li> </ul> <p>3.2 Feeding day old chicks</p> <ul style="list-style-type: none"> <li>• Amount</li> <li>• Feeding schedule</li> </ul> <p>3.3 Water requirements of chicks</p> <ul style="list-style-type: none"> <li>• Quality</li> <li>• Quantity</li> </ul> <p>3.4 Feeding records</p>	<ul style="list-style-type: none"> <li>• Written tests</li> <li>• Observation</li> <li>• Oral questions</li> <li>• Third party report</li> <li>• Interviewing</li> <li>• Project</li> </ul>
4 Manage brooder house micro climate	<p>4.1 Methods of assessing micro-climatic variations in brooder house</p> <ul style="list-style-type: none"> <li>• Use of tools and equipment</li> <li>• Animal behaviour</li> <li>• Human senses</li> <li>• Non-conventional aids</li> </ul> <p>4.2 Corrective measures for micro-climate variations</p> <ul style="list-style-type: none"> <li>• Temperature</li> <li>• Humidity</li> </ul>	<p>Written tests</p> <p>Observation</p> <p>Oral questions</p> <p>Third party report</p> <p>Interviewing</p> <p>Project</p>

	<ul style="list-style-type: none"> <li>• Ventilation</li> <li>• Lighting</li> </ul> 4.3 Record keeping	
5 Maintain brooder hygiene	5.1. Brooder predisposing factors 5.2. Bio-safety practices required in brooding 5.3. Bio-safety Structures and facilities	Written tests Observation Oral questions Third party report Interviewing Project and report writing
6 Perform chick vaccination	9.1 Chick handling 9.2 Chick vaccination schedule 9.3 Equipment, tools and materials required for vaccination. 9.4 Vaccination procedures. <ul style="list-style-type: none"> <li>• Pre- vaccination preparation</li> <li>• Actual vaccination</li> <li>• Post vaccination management.</li> </ul> 9.5 Chickvaccination records	Written tests Observation Oral questions Third party report Interviewing
7 Control <i>Kienyeji</i> chicken vermin	7.1 Economic importance of vermin invasion 7.2 Types of predators 7.3 Predator control measures for brooder house 7.4 Record keeping	Written tests Observation Oral questions Third party report Interviewing
8 Control <i>Kienyeji</i> chicken predators	8.1 Economic importance of vermin invasion. 8.2 Identification of vermin	Written tests Observation Oral questions

	<ul style="list-style-type: none"> <li>• Lice</li> <li>• Mites</li> <li>• Fleas</li> </ul> <p>8.3 Vermin control measures</p> <ul style="list-style-type: none"> <li>• Chemical</li> <li>• Structural related</li> <li>• Cultural practices</li> </ul> <p>8.4 Record keeping.</p>	<p>Third party report</p> <p>Interviewing</p>
9 Monitor chick performance	<p>9.6 Growth and development pattern in chicks</p> <ul style="list-style-type: none"> <li>• Feathering</li> <li>• Weight gain</li> </ul> <p>9.7 Chick behaviour</p> <ul style="list-style-type: none"> <li>• Feeding behaviour</li> <li>• Activity</li> <li>• Methods of assessing growth performance of chicks <ul style="list-style-type: none"> <li>• Weighing</li> <li>• Physical appearance</li> </ul> </li> </ul> <p>9.8 Performance assessment equipment and tools.</p> <p>9.9 Chicken vices</p> <ul style="list-style-type: none"> <li>• Types</li> <li>• Control measure</li> </ul> <p>9.10 Culling of chicks</p> <ul style="list-style-type: none"> <li>• Culling criteria</li> <li>• Stages of culling</li> </ul> <p>9.11 Record keeping</p>	<p>Written tests</p> <p>Observation</p> <p>Oral questions</p> <p>Third party report</p> <p>Interviewing</p> <p>Project</p>

### **Suggested methods of instruction**

- Project
- Demonstration by trainer
- Practice by the trainee
- Discussions
- Direct instruction
- Case study
- Audio –visual aids

### **Recommended Resources**

<b>Functional Brooder house with the following:</b>		
<ul style="list-style-type: none"><li>• Day old chicks</li><li>• Heat source</li><li>• Chick feeders</li><li>• Chick drinkers</li><li>• Light source</li></ul>	<ul style="list-style-type: none"><li>• Brooder guard</li><li>• Curtains</li><li>• Brooder thermometer</li><li>• Hygrometer</li><li>• Beddings</li></ul>	<ul style="list-style-type: none"><li>• Chick feeds</li><li>• Weighing scale</li><li>• Water</li><li>• Vaccines</li><li>• Vaccination equipments</li></ul>