

## ARTIFICIAL INCUBATION MANAGEMENT

**UNIT CODE:** 0811 241 05A

**TVET CDACC UNIT CODE:** POL/CU/KE/CR/02/4/MA

### Relationship to Occupational Standards

This unit addresses the Unit of Competency: Manage Artificial Incubation

**Duration of Unit:** 80 hours

### Unit Description

This unit specifies the competencies required to manage artificial incubation. It involves operating egg incubators, managing egg hatching, managing hatchery biosecurity and maintaining hatchery records.

### Summary of Learning Outcomes

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

S/No	Learning Outcomes	Duration (Hours)
1.	Operate egg incubators	30
2.	Manage egg hatching	30
3.	Manage hatchery bio-security measures	10
4.	Maintain hatchery records	10
<b>Total</b>		<b>80</b>

### Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Operate egg incubators	1.1. Incubator chamber parameters 1.1.1. Temperature	Written tests Observation

	1.1.2. Humidity 1.1.3. Air quality and flow 1.1.4. Egg inclination 1.2. Parts of the incubator 1.2.1. Setting trays 1.2.2. Setting trolleys 1.2.3. Incubation chamber 1.3. Eggs fumigation 1.4. Suitable eggs for incubation 1.5. Egg setting in trays	Oral questions Third party report Interviewing
2. Manage egg hatching	2.1 Steps in hatching and time duration <ul style="list-style-type: none"> <li>• Removal from incubator</li> <li>• Candling</li> <li>• Transfer to hatching baskets</li> <li>• Transfer into hatching chamber / machine</li> </ul> 2.2 Monitoring the hatching process 2.3 Removal from the hatching chamber 2.4 Evaluation of chicks 2.5 Vaccination 2.6 Sexing of day-old chicks 2.7 Transfer of chicks to chick cartons / crates <ul style="list-style-type: none"> <li>• Personal finances management</li> <li>• Simple book keeping (sales, purchases debts, and profits)</li> <li>• Budgeting</li> <li>• Savings management</li> </ul>	Written tests Observation Oral questions Third party report Interviewing

3. Manage hatchery biosecurity measures	3.1 Biosecurity structures and equipment and guidelines. 3.2 Standard operational procedures. 3.3 Occupational safety and health procedures. 3.4 Environmental protection measures (EMCA act 1999) 3.5 Cleaning, disinfection and fumigation of the hatchery buildings and equipment. 3.6 Hatchery waste management	Written tests Observation Oral questions Third party report Interviewing
4. Maintain hatchery records	4.1 Data entry and monitoring <ul style="list-style-type: none"> <li>• Daily</li> <li>• Weekly</li> <li>• Monthly</li> </ul> 4.2 Hatchery record keeping	Written tests Observation Oral questions Third party report Interviewing

### Suggested Methods of Instruction

- Project
- Demonstration by trainer
- Practice by the trainee
- Field trips
- Discussions
- Direct instruction
- Electronic audio-visual presentations
- Simulations

### Recommended Resources

<b>Functional hatchery farm with the following:</b>		
• Hatchery unit	• Hatchery equipment and	• Stationery

<ul style="list-style-type: none"> <li>• Biosecurity structures and materials (gate barriers, foot baths, spray races / showers, disinfectants, sanitizers, detergents, fumigants, water and vaccination kits)</li> <li>• Labels or labelling materials for egg trays, trolleys, chick baskets and packaging material</li> </ul>	<p>tools (fumigators, sprayers, refrigerators, hatching machines, setters / incubators, candling machines, egg crates and trays, egg trolleys, hatching baskets, chick boxes, chick labels, identification kits, macerators and renderers, gas cylinders, vacuum cleaners)</p> <ul style="list-style-type: none"> <li>• Standby power generator</li> </ul>	<ul style="list-style-type: none"> <li>• Calculators and / or computers</li> <li>• Hatchery pest and predator control equipment and materials</li> <li>• Hatchery operations manuals</li> <li>• Livestock production manuals</li> <li>• Journal of <i>Kienyeji</i> chicken scienceChick feed</li> <li>• Feed stores</li> </ul>
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