

## HATCHING POULTRY EGGS

**ISCED UNIT CODE:** 0811 341 02 A

**TVETCDACC UNIT CODE:** POL/CU/HT/CR/02/4/MA

### Relationship to Occupational Standards

This unit addresses the Unit of Competency: Hatch Poultry Eggs

**Duration of Unit:** 100 hours

### Unit Description

This unit specifies the competencies required to hatch poultry eggs. It involves setting poultry eggs, monitoring egg hatching, transfer of hatched chicks and entry of 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.	Set poultry eggs	30
2.	Monitor egg hatching	30
3.	Transfer hatched chicks	30
1.	Enter hatchery records	10
<b>Total</b>		<b>100</b>

### Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods

<p>1. Set poultry eggs</p>	<p>1.1 PPE</p> <p>1.1.1 Overalls</p> <p>1.1.2 Gumboots</p> <p>1.1.3 Nose and mouth mask</p> <p>1.1.4 Goggles</p> <p>1.1.5 Gloves</p> <p>1.1.6 Head gear</p> <p>1.2 Hatchery Biosecurity measures</p> <p>1.3 Hatching egg handling regulations</p> <p>1.3.1 Hand sanitization or wearing gloves whenever handling eggs</p> <p>1.3.2 Free from communicable diseases</p> <p>1.3.3 Handling eggs with care</p> <p>1.3.4 Avoiding wetting the eggs</p> <p>1.4 Egg structure</p> <p>1.5 Egg retrieval from cold storage</p> <p>1.6 Egg traying room</p> <p>1.7 Setting trays</p> <p>1.8 Setting trolleys</p> <p>1.9 Egg setting</p> <p>1.10 Setting position (vertical with broad ends up)</p> <p>1.11 Incubation chamber parameters (temperature and humidity)</p> <p>1.11.1 Turning mechanisms, angles and frequency</p> <p>1.11.2 Duration of setting</p> <p>1.11.3 Power outage and back up</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> </ul>
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	options	
2. Monitor egg hatching	2.1 Egg incubation periods of poultry 2.2 Hatching dates 2.3 Removal from hatching trays 2.4 Egg candling <ul style="list-style-type: none"> <li>2.4.1 Infertile eggs</li> <li>2.4.2 Dead in shell embryos</li> <li>2.4.3 Exploders</li> </ul> 2.5 Transfer to hatching baskets 2.6 Hatching position (horizontal) 2.7 Hatching machines 2.8 Transfer to hatching machine 2.9 Chick hatching process <ul style="list-style-type: none"> <li>2.9.1 Hatching parameters (temperature, humidity and CO2 concentrations)</li> <li>2.9.2 Pipping / shell cracking</li> <li>2.9.3 Hatch window (duration)</li> <li>2.9.4 Hatching indicators (amount of fluff, chick noises)</li> </ul>	<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> </ul>
3. Transfer hatched chicks	3.1 Chick transfer 3.2 Basket pulling 3.3 Chick separation from debris 3.4 Chick sorting – sorting criteria 3.5 Unhatched eggs 3.6 Stages of embryonic deaths (dead in shell, pipped)	<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> </ul>

	3.7 Causes of embryonic deaths 3.8 Remedial measures to minimise the embryonic deaths 3.9 Disposal of hatchery wastes	
4. Enter hatchery records	4.1 Incubation parameter recordings 4.2 Power outages 4.3 Egg parameters (numbers incubated, candled, rejected, hatched, type of eggs, breed) 4.4 Batch numbers, flock, dates of incubation, candling hatching and transfer)	<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> </ul>

### Suggested Methods of Instruction

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

### Recommended Resources for 25 Trainees

Functional hatchery farm with the following:		
<ul style="list-style-type: none"> <li>• Hatchery unit</li> <li>• Biosecurity structures and materials (gate</li> </ul>	<ul style="list-style-type: none"> <li>• Hatchery equipment and tools (fumigators, sprayers, refrigerators,</li> </ul>	<ul style="list-style-type: none"> <li>• Hatchery pest and predator control equipment and materials</li> </ul>

<p>barriers, foot baths, spray races / showers, disinfectants, sanitizers, detergents, fumigants, water and vaccination kits)</p> <ul style="list-style-type: none"> <li>• Labels or labelling materials for egg trays, trolleys, chick baskets and packaging material</li> <li>• Stationery</li> <li>• Calculators and / or computers</li> </ul>	<p>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>• Hatchery operations manuals</li> <li>• Livestock production manuals</li> <li>• Journal of poultry science</li> <li>• Chick feed</li> <li>• Feed stores</li> </ul>
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