

## MANAGE POULTRY BROODING

**ISCED UNIT CODE:** 0811 351 02 A

**TVETCDACC UNIT CODE:** POL/OS/LY/CR/02/3/MA

### UNIT DESCRIPTION

This unit specifies the competencies required to manage poultry 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.

### ELEMENTS AND PERFORMANCE CRITERIA

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
These describe the key outcomes which make up workplace function.	These are assessable statements which specify the required level of performance for each of the elements. <b><i>Bold and italicized terms are elaborated in the range.</i></b>
1. Prepare chick brooder	1.1 Brooder construction materials are selected as per farm practices 1.2 Brooder is constructed as per poultry production guidelines. 1.3 Equip chick brooder with <b><i>chick brooder equipment</i></b> as per poultry production guidelines 1.4 Cleaning and disinfection of the brooder based on Standard Operation Procedures (SOPs) of poultry production facilities 1.5 Brooder equipment are cleaned and sterilized as per the SOPs.
2. Acquire day-old chicks	2.1 Day-old chicks are sourced as per work place policy and Poultry Production Manual ( <b><i>PPM</i></b> ) guidelines 2.2 Day-old chicks are transported as per PPM and animal welfare guidelines 2.3 Placement of day-old chicks is done as per poultry

	production guidelines in the PPM
3. Feed brooding chicks	<p>3.1 Suitable type and form of chick feed is identified and selected based on flock age and feeding requirements</p> <p>3.2 Feeding frequency is determined based on PPM guidelines</p> <p>3.3 Feeding and watering equipment are <b>prepared</b> based on their condition, position and flock size</p> <p>3.4 Adequate amount of chicks feed and water is determined and dispensed based on flock feeding requirements</p>
4. Manage brooder house micro climate	<p>4.1 Micro climate tools and equipment are identified as per environmental conditions and bird requirements.</p> <p>4.2 <b>Micro climate</b> variations are assessed as per poultry production manual guidelines.</p> <p>4.3 Brooder micro climate is moderated as per the requirements of the birds</p>
5. Maintain brooder hygiene	<p>5.1 Bio-safety measures are implemented as per guidelines in the poultry production manual and work place policies</p> <p>5.2 Bio-safety conformity is monitored as per work place requirements</p>
6. Perform chick vaccination	<p>6.1 Vaccination <b>preparations</b> are done accordance with PPM and vaccine manufacturer's guidelines</p> <p>6.2 Poultry vaccine is re-constituted according to manufacturer's guidelines</p> <p>6.3 Poultry vaccines are administered in accordance with developed schedule</p> <p>6.4 Vaccinated poultry are observed to ascertain vaccine intake and check for abnormal reactions in accordance with PPM and vaccine manufacturer's guidelines</p> <p>6.5 <b>Vaccination details</b> are recorded as per PPM guidelines and farm policies</p>
7. Control poultry vermin	<p>7.1 Chicken vermins are identified based on the geographic area</p> <p>7.2 Vermin control method is selected according to the type of vermins identified</p> <p>7.3 Vermis are controlled as per the type of method selected, vermicide manufacturer's guidelines and poultry</p>

	production manual
8. Control poultry predators	<p>8.1 Chicken predators are identified based on the geographic area</p> <p>8.2 Predator control method is selected according to the type of predators identified</p> <p>8.3 Predators are controlled as per the type of method selected and manufacturer's guidelines of control drug or trap.</p>
9. Monitor chick performance	<p>9.1 Poultry vices are monitored as per PPM guidelines and work place practices</p> <p>9.2 <b>Performance assessment</b> is carried out as per PPM guidelines and work place procedures</p> <p>9.3 Culling criteria are designed based on chick performance, stocking capacity and work place procedures</p> <p>9.4 Chicks are culled according to designed culling criteria and work place procedures.</p>

## RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environment and situations that will affect performance.

Variable	Range
1. Brooder construction materials may include but not limited to:	<ul style="list-style-type: none"> <li>• Cardboard</li> <li>• Wooden pegs</li> <li>• Litter material</li> </ul>
2. Chick brooder equipment may include but not limited to:	<ul style="list-style-type: none"> <li>• Brooder thermometer</li> <li>• Charcoal jiko</li> <li>• Infra-red bulb</li> <li>• Gas burner</li> <li>• Kerosene lamp</li> <li>• Chick feeder</li> <li>• Chick drinker</li> <li>• Hygrometer</li> </ul>
3. SOPs may include but not limited to:	Guidelines on how to clean and sanitize a poultry house, its internal structures and equipment in place or out of place

4. PPM may include but not limited to:	<ul style="list-style-type: none"> <li>• National Poultry Development Programme Manual</li> <li>• Production manuals by breeding and multiplication organizations like Issa Brown, Cobb, Kenchic and KALRO</li> </ul>
5. Prepared may include but not limited to:	<ul style="list-style-type: none"> <li>• Removing foreign material</li> <li>• Removing spoilt left-over feed</li> <li>• Washing</li> <li>• Drying</li> <li>• Positioning in right pattern and height</li> </ul>
6. Micro climate may include but not limited to:	<ul style="list-style-type: none"> <li>• Humidity</li> <li>• Temperature</li> <li>• Light</li> <li>• Ventilation/ Air Flow</li> </ul>
7. Preparations may include but not limited to:	<p>Activities that are carried out before, during and after vaccination;</p> <ul style="list-style-type: none"> <li>• Provision of anti-stress nutritional premixes</li> <li>• Feed and water withdrawal</li> <li>• Confirmation of bird numbers to determine dosage</li> <li>• Provision of disinfectant free water</li> <li>• Positioning vaccine receptacles in the poultry house for oral vaccines</li> <li>• Confine and restrain poultry for injectable and ocular-nasal vaccines</li> </ul>
8. Vaccination details may include but not limited to:	<ul style="list-style-type: none"> <li>• Type of vaccine</li> <li>• Type of disease vaccinated against</li> <li>• Age of poultry</li> <li>• Date and time of vaccination</li> <li>• Date of manufacture and expiry of vaccine</li> <li>• Vaccine source and batch number</li> <li>• Route of vaccine administration (IM, wing stab, sub cutaneous, intra nasal, intra ocular or spray)</li> <li>• Number of birds vaccinated</li> <li>• Identification of birds (flock, type, breed)</li> </ul>
9. Performance assessment may include but not limited to:	<ul style="list-style-type: none"> <li>• Weighing</li> <li>• Calculating growth rate</li> <li>• Observing physical appearance, gait and behavior</li> </ul>

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## **REQUIRED SKILLS AND KNOWLEDGE**

This section describes the skills and knowledge required for this unit of competency.

### **Required skills**

The individual needs to demonstrate the following skills:

- Carpentry
- Communication
- Handling
- Negotiation
- Numeracy
- Observation
- Chick handling
- Vaccination skills

### **Required knowledge**

The individual needs to demonstrate knowledge of:

- Brooder design and requirements
- Carpentry
- Chick sources and acquisition
- Chick transportation
- Animal welfare regulations
- Chick placement
- Algebra
- Chick feeds and feeding requirements
- Chick feeding and watering practices
- Scales and measurement
- Chick micro climate
- Chick behavior
- Heat sources
- Heat transfer
- Light sources and intensity
- Lighting programmed
- Brooder bio-safety
- Chick diseases

- Poultry vaccination programme
- Vermin, pest and predator control

## EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Acquired chicks in a timely and efficient manner</li> <li>1.2 Transported chicks with due consideration to animal welfare regulations</li> <li>1.3 Accurately set-up chick brooder micro climate and equipment</li> <li>1.4 Placed chicks in the brooder considering suitable stocking density</li> <li>1.5 Appropriately moderated brooder micro- climate</li> <li>1.6 Provided correct type of chick feed at adequate amounts and frequency</li> <li>1.7 Implemented suitable bio- safety measures</li> <li>1.8 Followed vaccination schedule as planned</li> <li>1.9 Put in place control measures for vermins and predators.</li> </ul>
2. Resource Implications	<p>The following resources <b>MUST</b> be provided:</p> <ul style="list-style-type: none"> <li>2.1 Assessment location / Layer farm with brooder unit</li> <li>2.2 Personal Protective Equipment and Apparel</li> </ul>
3. Methods of Assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> <li>3.1 Observation</li> <li>3.2 Written tests</li> <li>3.3 Oral questioning</li> </ul>
4. Context of Assessment	<p>Competency may be assessed on the job, off the job or during industrial attachment. Off the job assessment must be undertaken in a closely simulated workplace environment.</p>
5. Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended.</p>