

## MANAGE ARTIFICIAL CHICK BROODING

**UNIT CODE:** 0811 241 05A

**TVETCDACC UNIT CODE :** POL/OS/KE/CR/03/4/MA

### 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.

### ELEMENTS AND PERFORMANCE CRITERIA

<b>ELEMENT</b> These describe the key outcomes which make up workplace function.	<b>PERFORMANCE CRITERIA</b> These are assessable statements which specify the required level of performance for each of the elements. <i><b>Bold and italicized terms are elaborated in the range.</b></i>
1. Prepare chick brooder	1.1 <i><b>Brooder construction materials</b></i> are assembled as per farm practices 1.2 Brooder is constructed as per poultry production manual ( <i><b>PPM</b></i> ) guidelines. 1.3 Equip chick brooder with <i><b>chick brooder equipment</b></i> 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 transported as per PPM and animal welfare guidelines 2.2 Placement of day-old chicks is done as per poultry production

	guidelines in the PPM
3. Feed brooder chicks	<p>3.1 Suitable feed type is identified and selected based on flock age</p> <p>3.2 <b>Feeding and watering equipment are prepared</b> based on their condition, position and flock size</p> <p>3.3 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 <b>Micro climate</b> tools and equipment are identified as per environmental conditions and bird requirements.</p> <p>4.2 Micro climate 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 Chick vaccination schedule is followed as per farm practice</p> <p>6.2 Vaccination equipment are selected as per farm practice</p> <p>6.3 Chick vaccination records are kept as per organizational requirements</p> <p>6.4 Vaccination procedures are dependent on type of vaccine</p> <p>6.5 Post-vaccination behavior is monitored as per farm practices</p>
7. Control chicken vermin	<p>7.1 Vermin control measures are installed as per farm requirements</p> <p>7.2 Vermin control is executed as per work place practices</p>
8. Control chicken predators	<p>8.1 Predator control measures are installed as per work place requirements</p> <p>8.2 Predator control is executed as per work place practices</p>

9. Monitor chick performance	<p>9.1 <b>Chicken vices</b> are monitored as per PPM guidelines and work place practices</p> <p>9.2 <b>Performance assessment</b> equipment and tools are selected based on work place practices</p> <p>9.3 Performance assessment is carried out as per work place procedures</p> <p>9.4 Chicks are culled as per work place procedures.</p>
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## 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. PPM may include but not limited to:	<ul style="list-style-type: none"> <li>• National Poultry Development Program Manual</li> <li>• Production manuals by breeding and multiplication organizations like; <ul style="list-style-type: none"> <li>• Issa Brown</li> <li>• Cobb</li> <li>• Kenchic</li> <li>• KALRO</li> </ul> </li> </ul>		
3. Chick brooder equipment may include but not limited to:	<table border="0"> <tr> <td> <ul style="list-style-type: none"> <li>• Brooder thermometer</li> <li>• Charcoal jiko</li> <li>• Infra-red bulb</li> <li>• Gas burner</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Kerosene lamp</li> <li>• Chick feeder</li> <li>• Chick drinker</li> <li>• Hygrometer</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>• Brooder thermometer</li> <li>• Charcoal jiko</li> <li>• Infra-red bulb</li> <li>• Gas burner</li> </ul>	<ul style="list-style-type: none"> <li>• Kerosene lamp</li> <li>• Chick feeder</li> <li>• Chick drinker</li> <li>• Hygrometer</li> </ul>
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4. Feeding and watering equipment are 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> </ul>		

	<ul style="list-style-type: none"> <li>• Positioning in right pattern and height</li> </ul>
5. 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>
6. Chicken vices may include but not limited to:	<ul style="list-style-type: none"> <li>• Pecking</li> <li>• Cannibalism</li> </ul>
7. Performance assessment may include but not limited to:	<ul style="list-style-type: none"> <li>• Weighing</li> <li>• Physical appearance</li> <li>• Gait</li> <li>• Behavior</li> </ul>

## 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
- Numeracy
- Observation
- Poultry Handling
- Vaccination skills

### Required knowledge

The individual needs to demonstrate knowledge of:

- Algebra
- Bio-safety
- Carpentry
- Poultry behavior
- Poultry health
- Poultry management
- Predator control
- Scales and measurement

## 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	Assessment requires evidence that the candidate: 1.1 Set-up chick brooder accurately 1.2 Maintained the right chick stocking density 1.3 Moderated brooder micro- climate appropriately 1.4 Provided adequate amounts of chick feeds timely 1.5 Observed bio- safety measures 1.6 Followed vaccination schedule as planned 1.7 Put in place control measures for vermin and predators.
2. Resource Implications	The following resources <b>MUST</b> be provided: 2.1 Assessment location / <i>Kienyeji</i> chicken production farm 2.2 Personal Protective Equipment and Apparel
3. Methods of Assessment	Competency may be assessed through: 3.1 Observation 3.2 Written tests 3.3 Oral questioning
4. Context of Assessment	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.
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended.