

## ESTABLISH FARM STRUCTURES

**UNIT CODE:** 0732 341 10A

**TVET CDACC UNIT CODE:** AGR/OS/AP/CR/04/4/MA

### UNIT DESCRIPTION

This unit specifies competencies required to set up farm structures. It involves developing of farm plan, designing farm structures and constructing farm structures. It also involves maintenance and used farm structures.

### ELEMENTS AND PERFORMANCE CRITERIA

<b>ELEMENT</b>  These describe the <b>key outcomes</b> which make up <b>workplace function</b> .	<b>PERFORMANCE CRITERIA</b>  These are <b>assessable</b> statements which specify the required level of performance for each of the elements.  <i>Bold and italicized terms are elaborated in the range.</i>
Develop farm plan	1.1 <b><i>Farm conditions</i></b> are analysed based on work requirement  1.2 Space requirements and relationships between farm components are determined as per work requirement  1.3 Farm plan layout is drawn based on efficiency, expansion capability, farmer's preference and environmental impacts.
Design farm structure	2.1 Drawing instruments are used as per work procedure  2.2 Scales are used as per structure design drawing  2.3 Areas and volumes are determined as per work requirement  2.4 Plan of farm structure is drawn as per work requirement
Construct farm structure	3.1 Personal protective equipment (PPEs) are used as per work procedures  3.2 Site for construction is prepared as per the design  3.3 Tools and equipment are assembled as per work

	<p>requirement</p> <p>3.4 Measurements are taken as per work requirement</p> <p>3.5 Markings are carried out as per work requirement</p> <p>3.6 Construction materials are selected based on design.</p> <p>3.7 Construction procedure is carried out as per work requirement</p>
Maintain farm structure	<p>4.1 Personal protective equipment (PPEs) is used as per work requirement</p> <p>4.2 Performance of constructed structure is assessed as per work requirement</p> <p>4.3 Quality of structure is assessed as per work requirement.</p> <p>4.4 Repairs are carried out as per need and design</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.

<b>Variable</b>	<b>Range</b>
<p>1. Farm structures/ constructed structures includes but not limited to:</p>	<ul style="list-style-type: none"> <li>• Nursery beds</li> <li>• green house</li> <li>• screen house</li> <li>• tunnels</li> <li>• Sheds</li> <li>• Fence</li> <li>• Apiaries</li> <li>• Storage rooms</li> <li>• Calf pens</li> <li>• Poultry houses</li> </ul>

<p>2. Tools and equipment include but not limited to:</p>	<ul style="list-style-type: none"> <li>• Wooden pegs</li> <li>• Measuring tape</li> <li>• Hammer</li> <li>• Sisal twine</li> <li>• Masonry tools</li> <li>• Carpentry tools</li> <li>• Plumbing tools</li> <li>• Hoe</li> <li>• Jembe</li> <li>• Panga</li> <li>• Slashers</li> <li>• Rakes</li> <li>• Mowers</li> <li>• Wheel barrows</li> <li>• Personal Protective Equipment (PPE)</li> </ul>
<p>Materials include but not limited to:</p>	<ul style="list-style-type: none"> <li>• Power</li> <li>• Green house construction materials</li> <li>• Tunnel construction materials</li> <li>• Shed construction materials</li> <li>• Screen house construction materials</li> <li>• Nursery beds construction materials</li> <li>• Fencing materials</li> <li>• Water</li> <li>• Metals</li> <li>• Woods</li> <li>• Nails</li> <li>• Hammer</li> <li>• Stones</li> <li>• Ballast</li> <li>• Iron sheets</li> <li>• Nails</li> <li>• Cement</li> </ul>

3. Farm conditions include but not limited to:	<ul style="list-style-type: none"> <li>• Topography</li> <li>• Wind direction</li> <li>• Soil type</li> <li>• Accessibility</li> <li>• Location of related structures</li> <li>• Security</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**

- Planning
- Innovation and creativity
- Accounting skills
  - Estimation
  - Masonry
  - Carpentry
  - Plumbing
  - Joinery
  - Measuring
  - Drawing
  - Basic structural design interpretation skills
  - Basic numeracy
  - Craftsmanship
  - Tilling skills

### **Required knowledge**

The individual needs to demonstrate knowledge of:

- Factors to consider in selecting construction site
- Farm Structure plan development
- Preparation of construction site
- Interpretation of an architectural plan
- Preparation of bill of quantities

- Budgeting
- Types of tools and equipment required in farm structures construction
- Materials for constructing Farm structures
- Sources of funds
- Nursery Irrigation systems
- Construction of farm structures
- Record keeping
- Costing
- Report writing
- environmental Impact Assessment

### **EVIDENCE GUIDE**

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

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Analysed Farm conditions based on work requirement</li> <li>1.2 Drawn Farm plan layout based on efficiency, expansion capability, farmer’s preference and environmental impacts</li> <li>1.3 Drawn Plan of farm structure as per work requirement</li> <li>1.4 Prepared site for construction as per the design</li> <li>1.5 Selected Construction materials based on design.</li> <li>1.6 Carried out Construction procedure as per work requirement</li> <li>1.7 Carried out repairs as per need and design</li> </ul>
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>2.1 Appropriately simulated environment where assessment can take place</li> <li>2.2 Access to relevant workplace assessment environment</li> <li>2.3 Resources relevant to the proposed assessment activity or tasks</li> </ul>

3. Methods of Assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> <li>1.1 Practical assessment</li> <li>1.2 Project</li> <li>1.3 Portfolio of evidence</li> <li>1.4 Third party report</li> <li>1.5</li> <li>1.6 Written assessment</li> <li>1.7 Oral assessment</li> </ul>
4. Context of Assessment	<p>This competency may be assessed in a workplace or in a simulated workplace.</p>
5. Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. Attitude is assessed alongside construction of farm structures</p>