



REPUBLIC OF KENYA

NATIONAL OCCUPATIONAL STANDARD

FOR

AGRICULTURE AND EXTENSION PRACTITIONER

**LEVEL 6
(CYCLE 3)**

ISCED OCCUPATIONAL STANDARD CODE: 0811 554 A



**TVET CDACC
P.O. BOX 15745-00100 NAIROBI**

ESTABLISH FARM STRUCTURES

UNIT CODE: 0811 551 21A

TVET CDACC UNIT CODE: AGR/OS/EXT/CR/01/6/M

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 of used farm structures.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes which make up workplace function .	PERFORMANCE CRITERIA These are assessable statements which specify the required level of performance for each of the elements. <i>(Bold and italicized terms are elaborated in the range).</i>
1. Develop farm plan	1.1 <i>Farm conditions</i> 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.
2. 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
3. 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 requirement 3.4 Measurements are taken as per work requirement 3.5 Markings are carried out as per work requirement 3.6 Construction materials are selected based on design. 3.7 Construction procedure is carried out as per work requirement

4. Maintain farm structure	4.1 Personal protective equipment (PPEs) is used as per work requirement 4.2 Performance of constructed structure is assessed as per work requirement 4.3 Quality of structure is assessed as per work requirement. 4.4 Repairs are carried out as per need and design
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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. Farm structures/ constructed structures includes but not limited to:	<ul style="list-style-type: none"> • Nursery beds • green house • screen house • tunnels • Sheds • Fence • Apiaries • Storage rooms • Calf pens • Poultry houses <ul style="list-style-type: none"> • Wooden pegs • Measuring tape • Hammer • Sisal twine • Masonry tools • Carpentry tools • Plumbing tools • Hoe • Jembe • Panga • Slashers • Rakes • Mowers • Wheel barrows

	<ul style="list-style-type: none"> • Personal Protective Equipment (PPE)
<ul style="list-style-type: none"> • Materials includes but not limited to 	<ul style="list-style-type: none"> • Power • Green house construction materials • Tunnel construction materials • Shed construction materials • Screen house construction materials • Nursery beds construction materials • Fencing materials • Water • Metals • Woods • Nails • Hammer • Stones • Ballast • Iron sheets • Nails • Cement

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.

1. Critical Aspects of Competency	Assessment requires evidence that the candidate: 1.1 Analysed Farm conditions based on work requirement 1.2 Drawn Farm plan layout based on efficiency, expansion capability, farmer's preference and environmental impacts 1.3 Drawn Plan of farm structure as per work requirement 1.4 Prepared site for construction as per the design 1.5 Selected Construction materials based on design. 1.6 Carried out Construction procedure as per work requirement 1.7 Carried out repairs as per need and design
2. Resource Implications	The following resources should be provided: 2.1 Appropriately simulated environment where assessment can take place 2.2 Access to relevant workplace assessment environment 2.3 Resources relevant to the proposed assessment activity or tasks
3. Methods of Assessment	Competency may be assessed through: 3.1 Observation 3.2 Written tests 3.3 Oral questioning 3.4 Interviewing
4. Context of Assessment	Competency may be assessed: 4.1 Workplace 4.2 Simulated work environment
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. Attitude is assessed alongside construction of farm structures