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**SOUTH AFRICAN QUALIFICATIONS AUTHORITY  
REGISTERED UNIT STANDARD:**

**Propagate plants in a variety of situations**

SAQA US ID		UNIT STANDARD TITLE		
116316		Propagate plants in a variety of situations		
ORIGINATOR		ORIGINATING PROVIDER		
SGB Primary Agriculture				
QUALITY ASSURING BODY				
-				
FIELD			SUBFIELD	
Field 01 - Agriculture and Nature Conservation			Primary Agriculture	
ABET BAND	UNIT STANDARD TYPE	OLD NQF LEVEL	NEW NQF LEVEL	CREDITS
Undefined	Regular	Level 4	NQF Level 04	3
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Reregistered		2009-07-01	2012-06-30	SAQA 0480/09
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2013-06-30		2016-06-30		

*In all of the tables in this document, both the old and the new NQF Levels are shown. In the text (purpose statements, qualification rules, etc), any reference to NQF Levels are to the old levels unless specifically stated otherwise.*

This unit standard does not replace any other unit standard and is not replaced by any other unit standard.

**PURPOSE OF THE UNIT STANDARD**

A learner achieving this standard will be able to propagate plants.

Learners will gain specific knowledge and skills in plant propagation and will be able to operate in a plant production environment implementing sustainable and economically viable production principles.

They will be capacitated to gain access to the mainstream agricultural sector, in plant production, impacting directly on the sustainability of the sub-sector. The improvement in production technology will also have a direct impact on the improvement of agricultural productivity of the sector.

**LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING**

It is assumed that a learner attempting this unit standard will show competence against the following unit standards or equivalent:

- NQF 3: Explain the propagation of plants.
- NQF 4: Demonstrate a basic understanding of the physiological processes in plant growth and development.
- NQF 3: Explain the planning and scheduling of tasks in a production environment.
- NQF 3: Interpret and maintain factors influencing agricultural enterprises and plan accordingly.

#### **UNIT STANDARD RANGE**

Whilst range statements have been defined generically to include as wide a set of alternatives as possible, all range statements should be interpreted within the specific context of application.

Range statements are neither comprehensive nor necessarily appropriate to all contexts. Alternatives must however be comparable in scope and complexity. These are only as a general guide to scope and complexity of what is required.

### **Specific Outcomes and Assessment Criteria:**

#### **SPECIFIC OUTCOME 1**

Recognise and use propagation structures, facilities and materials under supervision and do problem solving on his / her own in relation to processes and maintenance.

##### **OUTCOME RANGE**

The propagation structures include but are not limited to sexual and asexual parts of the plant. Facilities include but are not limited to controlled, protected or open field environments.

#### **ASSESSMENT CRITERIA**

##### **ASSESSMENT CRITERION 1**

The propagation structures available for the propagation of plant material for different production systems are identified and evaluated.

##### **ASSESSMENT CRITERION 2**

Potential faults of the structures and describe the effect on the success or failure of propagation material are identified.

##### **ASSESSMENT CRITERION 3**

The effect of different propagation media on the success or failure of propagation material is described.

##### **ASSESSMENT CRITERION 4**

Growing media components are properly measured mixed in form of composition and sterilised.

#### **SPECIFIC OUTCOME 2**

Propagate a variety of plant types using different asexual methods.

##### **OUTCOME RANGE**

Asexual propagation methods include but are not limited to plant cuttings, budding and grafting (basic).

#### **ASSESSMENT CRITERIA**

##### **ASSESSMENT CRITERION 1**

The different methods of asexual propagation are identified and applied and best practice is

selected.

#### **ASSESSMENT CRITERION 2**

The different methods of asexual propagation in relation to the types of plants are explained.

#### **ASSESSMENT CRITERION 3**

The different types of budding and grafting methods are applied and explained.

#### **ASSESSMENT CRITERION 4**

The use of hormones for asexual propagation is described.

#### **ASSESSMENT CRITERION 5**

Methods to guide a team to use the correct sanitary measurements in propagation procedures is applied.

#### **SPECIFIC OUTCOME 3**

Experiment with different types of propagation media and environment.

#### **OUTCOME RANGE**

Propagation media includes but is not limited to artificial media, soil, peat moss, heated and humidified seed boxes etc. Environment includes but is not limited to controlled atmosphere, open fields etc.

#### **ASSESSMENT CRITERIA**

##### **ASSESSMENT CRITERION 1**

The role of artificial propagation media in different propagation systems is described.

##### **ASSESSMENT CRITERION 2**

Possible methods of solving propagation problems with reference to propagation media and environments are applied and described.

##### **ASSESSMENT CRITERION 3**

The effectiveness of different processes with the propagation of material is compared and contrasted.

##### **ASSESSMENT CRITERION 4**

Successful versus non-successful propagation media and environments are evaluated.

#### **SPECIFIC OUTCOME 4**

Establish a process for the post propagation activities.

#### **OUTCOME RANGE**

Post propagation activities include but are not limited to the pest and disease control of, fertilising and irrigation of, hardening off of, and transferring of propagated material to different environments.

#### **ASSESSMENT CRITERIA**

##### **ASSESSMENT CRITERION 1**

Readiness of the propagated material to be transferred to the next phase is described and identified.

##### **ASSESSMENT CRITERION 2**

The basic symptoms of pest or disease problems encountered in the propagation process are

described.

### **ASSESSMENT CRITERION 3**

The different phases the propagated material passes through from the controlled environment to the field is explained.

### **ASSESSMENT CRITERION 4**

The possible problems that can be encountered with the hardening off process of the propagated material are solved and prevented.

### **ASSESSMENT CRITERION 5**

A hardening off process is established.

## **UNIT STANDARD ACCREDITATION AND MODERATION OPTIONS**

The assessment of qualifying learners against this standard should meet the requirements of established assessment principles.

It will be necessary to develop assessment activities and tools, which are appropriate to the contexts in which the qualifying learners are working. These activities and tools may include an appropriate combination of self-assessment and peer assessment, formative and summative assessment, portfolios and observations etc.

The assessment should ensure that all the specific outcomes; critical cross-field outcomes and essential embedded knowledge are assessed.

The specific outcomes must be assessed through observation of performance. Supporting evidence should be used to prove competence of specific outcomes only when they are not clearly seen in the actual performance.

Essential embedded knowledge must be assessed in its own right, through oral or written evidence and cannot be assessed only by being observed.

The specific outcomes and essential embedded knowledge must be assessed in relation to each other. If a qualifying learner is able to explain the essential embedded knowledge but is unable to perform the specific outcomes, they should not be assessed as competent. Similarly, if a qualifying learner is able to perform the specific outcomes but is unable to explain or justify their performance in terms of the essential embedded knowledge, then they should not be assessed as competent.

Evidence of the specified critical cross-field outcomes should be found both in performance and in the essential embedded knowledge.

Performance of specific outcomes must actively affirm target groups of qualifying learners, not unfairly discriminate against them. Qualifying learners should be able to justify their performance in terms of these values.

- Anyone assessing a learner against this unit standard must be registered as an assessor with the relevant ETQA.
- Any institution offering learning that will enable achievement of this unit standard or assessing this unit standard must be accredited as a provider with the relevant ETQA.
- Moderation of assessment will be overseen by the relevant ETQA according to the moderation guidelines in the relevant qualification and the agreed ETQA procedures.

## **UNIT STANDARD ESSENTIAL EMBEDDED KNOWLEDGE**

The person is able to demonstrate a basic knowledge of:

- Basic safety requirements related to the propagation environment, tools and procedures.

- Basic hygiene requirements for the propagation environments.
- Growing media - wet and dry.
- Weeds, pest and diseases.
- The safe use and handling of a variety of Chemicals and hormonal and other organic preparations.

#### **UNIT STANDARD DEVELOPMENTAL OUTCOME**

N/A

#### **UNIT STANDARD LINKAGES**

N/A

### **Critical Cross-field Outcomes (CCFO):**

#### **UNIT STANDARD CCFO IDENTIFYING**

Problem Solving: In relation of all processes of plant propagation.

#### **UNIT STANDARD CCFO WORKING**

Teamwork: Especially in relation of his role as leader of a team.

#### **UNIT STANDARD CCFO ORGANISING**

Self-Management: Good organisational skills are critical.

#### **UNIT STANDARD CCFO COLLECTING**

Interpreting Information: Especially interpreting environmental interaction.

#### **UNIT STANDARD CCFO COMMUNICATING**

Communication: As leader of a team essential.

#### **UNIT STANDARD CCFO SCIENCE**

Use Science and Technology: Basic knowledge in relation of all processes.

#### **UNIT STANDARD CCFO DEMONSTRATING**

The world as a set of related systems.

#### **UNIT STANDARD CCFO CONTRIBUTING**

Self-development: Especially management, organisation and communication critical.

#### **QUALIFICATIONS UTILISING THIS UNIT STANDARD:**

	<b>ID</b>	<b>QUALIFICATION TITLE</b>	<b>OLD LEVEL</b>	<b>NEW LEVEL</b>	<b>STATUS</b>	<b>END DATE</b>	<b>QUALITY ASSURING BODY</b>
Core	<a href="#">49009</a>	National Certificate: Plant Production	Level 4	New Level Assignment Pend.	Reregistered	2012-06-30	AgriSETA

#### **PROVIDERS CURRENTLY ACCREDITED TO OFFER THIS UNIT STANDARD:**