

Domain	AGRONOMIC CROPS	Unit ID:	1293
Title:	Establish field crops		
Level: 2			Credits: 4

Purpose

This unit standard specifies the competencies required to establish field crops. It is intended for those who work in agriculture as well as people in other occupations that work with plants. It includes:

- Prepare the site for planting
- Prepare for crop planting
- Carry out planting operations
- Care for young plants.

Special Notes

1. Entry information

Prerequisites:

- *Unit 1307 - Apply soil sampling techniques and soil fertility and conditioning amendments and practices*
- *Unit 1379 - Operate simple farm machinery*

2. This unit standard is to be delivered and assessed in the context of agricultural operations and can be assessed in conjunction with other relevant technical unit standards.

3. The evidence required to demonstrate competency in this unit must be relevant to workplace operations.

4. Assessment evidence may be collected from a real workplace or an appropriate simulated environment in which agricultural operations are carried out.

All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' guidelines and instructions.

5. Demonstration of competence, at a minimum, requires evidence in the establishment of at least two cereals and one legume listed in '*Field Crops*' of Section '6. Glossary of terms' below.

6. Glossary of terms

- '*Field Crops*' may include, but are not limited to, maize, pearl millet, sorghum and legumes commonly grown in Namibia.
- '*Safety requirements*' may include, but are not limited to, safe systems and procedures for safe use of machinery, tools and equipment, hazard and risk control, manual handling, handling, application and storage of hazardous substances, outdoor work and the use of personal protective equipment.
- '*Workplace procedures*' may include but are not limited to work notes, plans, product labels, manufacturer's specifications, operator's manuals, safety plans, fire control, waste disposal, recycling, re-use guidelines and supervisors oral or written instructions.

- 'Machinery, equipment and tools' may include, but are not limited to, 'simple equipment', surveying and measuring equipment, tractors and hand tools.
- 'Simple equipment' signifies tractor or other drawn equipment without engines and other moving parts.

7. Regulations and legislation relevant to this unit standard include the following:

- Labour Act, No. 11, 2007
- Regulations relating to the Health and Safety of employees at work, 1997
- National Agricultural Policy, 1995
- Fertilisers, farm feeds and agriculture and stock remedies Act, No. 46, 1998
- Biosafety Act, No. 7, 2006
- Water Resources Management Act, No. 24, 2004
- Environmental Management Act, No. 7, 2007
- Pollution Control and Waste Management Bill, 2003 3rd draft
- National Policy on Human and Wildlife Conflict Management, 2009
- Agronomic Industry Act, 20, 1992
- Standards Act, 2005, Standards Regulations: Standards Act, 2005 and relevant Namibian Standards as established

and all subsequent amendments to any of the above

- All current sets of *Good Agricultural Practices* to which Namibia subscribes and that regulate agricultural products entering a country to which Namibian producers may export.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority on www.namqa.org and the Namibia Training Authority on www.nta.com.na.

Elements and Performance Criteria

Element 1. Prepare the site for planting

Range

Disposal of waste materials may include but not be limited to disinfestation, appropriate uses of organic waste, mulching, composting, removal of seed heads and disposing of noxious or poisonous material.

Soil treatments/amendments may include but not limited to lime, gypsum, organic matter, artificial fertilisers or the planting of a temporary or permanent cover crop.

Performance Criteria

- 1.1 Old crop and other waste materials are removed and disposed of as appropriate to cropping system and in consideration of environmental implications.
- 1.2 Pre-planting soil treatment/amendments are applied according to supervisor's instructions.

- 1.3 Crop protection is implemented according to workplace procedures.
- 1.4 The planting pattern is marked out according to workplace procedures.
- 1.5 Machinery, equipment and tools are operated according to workplace procedures.

Element 2. Prepare for crop planting

Range

Hazards may include, but are not limited to, noise, fumes, hazardous substances, solar radiation, dusts, adverse weather conditions, moving machinery and machinery parts.

Environmental implications may include, but are not limited to, the contamination of ground water or soils, chemical use, land disturbance and spread of weeds.

Personal Protective Equipment (PPE) may include, but are not limited to, boots, hat, overalls, gloves, eye and hearing protection, respirator or face mask, high visibility clothing and sun protection.

Performance Criteria

- 2.1 Instructions for planting and establishing the crop are confirmed.
- 2.2 Safety requirements are followed in accordance with safety plans and policies.
- 2.3 Machinery, equipment and tools are selected and prepared for the task being undertaken.
- 2.4 Hazards are identified, risk assessed and suitable controls implemented.
- 2.5 The environmental implications of crop establishment are identified and discussed with the supervisor.
- 2.6 Suitable personal protective equipment is selected, used, maintained and stored according to workplace procedures.

Element 3. Carry out planting operations

Performance Criteria

- 3.1 Seed is selected according to the type of crop and workplace quality standards.
- 3.2 Seed, waiting to be planted is maintained under conditions that will ensure maximum viability.
- 3.3 Safety requirements are followed in accordance with safety plans and policies.
- 3.4 Seeding is carried out according to plan.
- 3.5 Organic and inorganic fertility amendments are applied according to plan.
- 3.6 Labels are applied according to workplace procedures.

Element 4. Care for young plants

Range

Treatments may include but are not limited to pest and disease prevention and control, weed prevention and control, frost prevention, fertilisers, organic amendments and mulch.

Irrigation may include, but is not be limited to, drip, overheads, centre pivot, micro irrigation, furrow and flood.

Work details may include, but are not limited to, oral or written reports to the supervisor.

Performance Criteria

- 4.1 Early crop growth is monitored and anomalies reported to supervisor.
- 4.2 Safety requirements are followed in accordance with safety plans and policies.
- 4.3 Thinning, re-planting and re-seeding are conducted in accordance with workplace procedures.
- 4.4 Treatments are applied to plantings according to the supervisor's instructions.
- 4.5 Water is applied to plantings according to the irrigation schedule and established sustainable agricultural practices.
- 4.6 Work is completed in accordance with workplace procedures.
- 4.7 Work details are recorded in accordance with workplace procedures.
- 4.8 Machinery, equipment and tools are cleaned and stored according to workplace procedures.

Registration Data

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