

	Unit ID: 1311
Domain	PLANT HUSBANDRY
Title:	Demonstrate understanding of sustainable, ecological and organic agriculture
Level: 2	Credits: 1

Purpose

This unit standard specifies the competencies required to explain the principles of sustainable, ecological and organic agriculture. It is intended for those who work in agriculture as well as people in other occupations that work with plants. It includes:

- Explain the principles and benefits of sustainable, ecological and organic agriculture
- Demonstrate knowledge of major practices used in sustainable, ecological and organic agriculture.

Special Notes

1. Entry information

Prerequisites: none

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.

5. Glossary of terms

The terms '*sustainable*', '*ecological*' and '*organic*' will refer to types of relevant production as practiced in Namibia with reference to international practices, norms and regulations as appropriate.

6. 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
- Road Traffic and Transport Regulations No. 268, 2000
- Occupational Health and Safety Regulations No. 18, 1997
- Namibian Organic Association Organic Standards and other international standards as relevant
- National Agricultural Policy, 1995
- Fertilisers, farm feeds and agriculture and stock remedies Act, No. 46, 1998
- Water Resources Management Act, No. 24, 2004
- Environmental Management Act, No. 7, 2007
- Pollution Control and Waste Management Bill, 2003 3rd draft
- 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. Explain the principles and benefits of sustainable, ecological and organic agriculture

Range

The principles of sustainable, ecological and organic agriculture may include but are not limited to sustainable production in economic, environmental and social terms, environmentally and ecologically friendly production, reliance on natural, renewable and non-toxic inputs, reliance on beneficial organisms, natural and holistic soil management, selection of crop cultivars and animal breeds suitable to local conditions and reliance on natural immunities and resistances enhanced by optimal growth of plants and health of livestock.

Performance Criteria

- 1.1 Working definitions of sustainable, ecological and organic are explained.
- 1.2 The principles and benefits of sustainable, ecological and organic agriculture are explained.

Element 2. Demonstrate knowledge of major practices used in sustainable, ecological and organic agriculture

Range

Soil management methods will include the practices that are considered sustainable, holistic and environmentally responsible and may include but are not limited to avoidance of toxic soil amendments, use of natural organic and mineral soil amendments, reduced soil disturbances (reduced tillage), crop rotations, methods to reduce soil erosion and grazing of livestock in rotation with crops; in accordance with good agricultural practices.

Natural organic soil amendments may include livestock manure, green manure, compost, litter, crop residues, organic municipal and household waste and seaweed, fish meal and bone meal; in accordance with relevant good agricultural practices.

Natural mineral soil amendments may include but not be limited to materials such as natural mined materials (e.g. rock phosphate), limestone and ash in accordance with relevant good agricultural practices.

Pest, disease, disorder and weed management will include practices that are considered sustainable, holistic and environmentally responsible and may include but not be limited to botanical pesticides, trap, companion and repellent plants, beneficial organisms, promotion of robust plant growth, crop rotations and physical and mechanical protection.

Key practices in sustainable, ecological and organic livestock production will include practices that are considered sustainable, holistic and environmentally responsible and may include but not be limited to promoting robust livestock health, selection of resistant breeds and use of natural medicines.

Performance Criteria

- 2.1 The methods of soil management in sustainable, ecological and organic agriculture are described.
- 2.2 The methods of management of crop weeds, pests, diseases and other disorders in sustainable, ecological and organic agriculture are described.
- 2.3 Key practices in sustainable, ecological and organic livestock production are described.
- 2.4 The requirements, preparations for and processes of organic certification are recalled.

Registration Data

Subfield:	Agronomy and Horticulture
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