

Domain	ENVIRONMENTAL LITERACY	Unit ID:	1393
Title:	Demonstrate an understanding of basic environmental principles in agriculture		
Level: 2			Credits: 4

Purpose

This unit standard specifies the competencies required to:

- Demonstrate basic knowledge of ecosystems
- Explain impacts of agriculture on the ecosystem
- Demonstrate knowledge on the impact of veld fire, floods and droughts and basic mitigation principles.

This unit standard is intended for people working in agriculture.

Special Notes

1. Entry information:

Prerequisite:

- 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. Regulations and legislation relevant to this unit standard includes but not limited to the following:

- Labour Act No. 11, 2007
- Regulations relating to the Health and Safety of employees at work, 1997
- Animal Health Act 2011
- Animal Protection Act of 1962
- Prevention of Undesirable Residue in Meat Act, 1991
- FANMeat standards for producers 2010
- Fertilisers, farm feeds and agriculture and stock remedies Act No. 46, 1998
- Biosafety Act No. 7 of 2006
- Water Resources Management Act No. 24, 2004
- Environmental Management Act No. 7, 2007
- Forest Act No. 12, 2001
- Communal Land Reform Act No. 5, 2002
- Environmental Management and Assessment Bill 2004
- Pollution Control and Waste Management Bill, 2003 3rd draft
- National Policy on Human and Wildlife Conflict Management, 2009

- Desertification and Biodiversity Policy March 2005
- Proposed Climate Change Policy October 2009
- 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.or.na and the Namibia Training Authority on www.nta.com.na.

Elements and Performance Criteria

Element 1. Demonstrate basic knowledge of ecosystems

Performance Criteria

- 1.1 The concept of balanced ecosystems as linked to sustainable farming is explained.
- 1.2 The basic interaction between the living (biotic) and non-living (abiotic) components of the ecosystem is described.
- 1.3 The carbon, water and nutrient cycles are described.

Element 2. Explain impacts of agriculture on the ecosystem

Range

Existing agricultural production systems include but are not limited to intensive and extensive arable and livestock production, large and small scale horticultural production, fruit and flower production, subsistence and game farming.

Negative impacts include but are not limited to farming methods which cause soil erosion, overgrazing, desertification, water pollution and reduced biodiversity.

Performance Criteria

- 2.1 Existing agricultural production systems are explained.
- 2.2 Positive and negative impacts of agricultural production systems on the environment are explained.

2.3 The concept of sustainable methods for agricultural production is explained.

Element 3. Demonstrate knowledge on the impact of veld fire, floods and droughts and basic mitigation principles

Performance Criteria

- 3.1 The causes of veld fire, floods and drought are identified.
- 3.2 The effects of veld fire, floods and drought on the ecosystem are explained.
- 3.3 The implications of veld fire, floods and drought on sustainable agricultural production are explained.
- 3.4 Basic mitigation principles for veld fire, floods and drought are described.

Registration Data

Subfield:	Natural Resources Management
Date first registered:	25 November 2015
Date this version registered:	25 November 2015
Anticipated review:	2020
Body responsible for review:	Namibia Training Authority