

Domain

PLANT HUSBANDRY

Title:

**Report pests, diseases, disorders and
weeds in crops**

Level: 2

Credits: 3

Purpose

This unit standard specifies the competencies required to recognise pests, diseases, disorders and weeds in crops. It is intended for those who work in agriculture as well as people in other occupations that work with plants. It includes:

- Identify pests, diseases, disorders and weeds in crops
- Report infestations, infections and disorders.

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

6. Demonstration of competence, at a minimum, requires evidence in the application of the elements in this unit standard to five weeds, ten insects and mites, one nematode, five diseases, three nutritional disorders and one temperature related disorder as listed in Section 7. Glossary of Terms below.

7. Glossary of Terms

- '*Weeds*' include any unwanted plants.
- '*Pests*' may include, but are not limited to, insects, mites, slugs and termites.
- '*Diseases*' may include, but are not limited to, plant or crop disorders caused by viruses, bacteria, nematodes and fungi.
- '*Disorders*' may include, but are not limited to, abnormal growth, colour and/or development caused by temperature related disorders. '*Disorders*' due to water stress and nutrient imbalances are not included.
- '*Temperature related disorders*' may include, but are not limited to, damage or growth disturbances caused by sub-optimally high or low temperatures, fluctuating temperatures, frost and sunscald.

8. 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
- 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. Identify pests, diseases, disorders and weeds in crops

Range

Recognition of symptoms of nutrient deficiencies is included in the Level 2 unit standard *Demonstrate knowledge of soil, water, nutrient and plant interactions*.

Pests, diseases, disorders' and weeds will be limited to those commonly found in crops cultivated in Namibia.

Life cycles may include, but are not limited to, annual and perennial weeds, complete and incomplete insect life cycles.

Performance Criteria

- 1.1 Weeds which impact on crops are recognised and identified by scientific and local name.
- 1.2 Pests which impact on crops and symptoms of their infestation are recognised and identified by scientific and names.
- 1.3 Beneficial organisms that are visible to the naked eye or hand lens are recognized and identified by scientific and local names.
- 1.4 Diseases which impact on crops and symptoms of their infestation are recognised by scientific and local names.
- 1.5 Life cycles and periods of intensity of activity of pests, diseases and weeds are described.

Element 2. Report infestations, infections and disorders

Range

Details of the pest, disease, disorder or weed may include, but are not limited to, common name, location, extent of the affected area, possibility of off target damage and potential threats that may exist to surrounding areas, crops and beneficial organisms and plants.

Scouting techniques to discover and identify infestations and infections may include, but are not limited to, trapping using nets, direct observation by eye and hand-lens, pheromone traps, sticky boards, baited traps and light traps and examination of aerial surveillance photographs.

Performance Criteria

- 2.1 Scouting techniques to discover and identify beneficial organisms, weed and pest infestations, infections and disorders are demonstrated.
- 2.2 Tentative identification of beneficial organisms, weed and pest infestations, infections and disorders is made.
- 2.3 Location of weed and infestations, infections and disorders is noted.
- 2.4 Extent and severity of weed and infestations, infections and disorders are estimated.
- 2.5 Details of the beneficial organism, pest, disease, disorder or weed occurrence are compiled and reported to the supervisor with samples for evidence.

Registration Data

Subfield:	Agronomy and Horticulture
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