

Title	Describe and carry out monitoring of plant pests and diseases		
Level	3	Credits	5

Purpose	People credited with this unit standard are able to: describe the factors which determine pest populations and methods of plant pest and disease monitoring for a specified primary sector workplace situation; monitor crop plant pests and diseases and detect any crop anomalies; and record, report and/or correct the results of monitoring activities.
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Classification	Primary Sector > Plant Pest, Weed, and Disease Control
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Available grade	Achieved
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Guidance Information

- 1 Legislation relevant to this unit standard includes but is not limited to:
 - Health and Safety at Work Act 2015; and any subsequent amendments.
- 2 All evidence presented in this unit standard must be in accordance with workplace procedures.
- 3 Definitions

Crop refers to whatever the specified primary sector is growing; for example, sports turf, equine, and agriculture – the crop may be grass; amenity turf – the crop may be grass or flower beds; forestry – the crop may be trees.

Plant pest refers to an undesirable organism injurious to humans or plants.

Plant disease refers to a plant growth symptom that develops in response to infection from a pathogen.

Workplace procedures refer to policies and procedures on safety, operation, and production set down by the employer or host organisation.
- 4 Range

Specified primary sector may be any one of – agriculture, forestry, horticulture, amenity, sports turf.

Outcomes and performance criteria

Outcome 1

Describe the factors which determine pest populations and methods of plant pest and disease monitoring for a specified primary sector workplace situation.

Performance criteria

- 1.1 Describe pest populations in terms of the factors which determine their presence or absence.
- Range factors include but are not limited to – environmental factors, presence of natural predators/parasites and beneficial organisms, production practices.
- 1.2 Describe disease prevalence in terms of the factors which encourage their presence.
- Range factors may include but are not limited to – temperature, light, wind, precipitation, humidity, soil moisture, leaf wetness, thatch, soil pH, fertility, soil microorganisms, susceptible hosts, mechanical damage; evidence of three factors is required.
- 1.3 Describe plant pest and disease monitoring in terms of a specified primary sector crop and situations which require it to be carried out.
- Range monitoring may include but is not limited to – threshold, injury level, injury; evidence of three is required; evidence is required for at least two situations.
- 1.4 Describe plant pest and disease monitoring systems in terms of the techniques relevant for a specific crop, and the associated procedures.
- Range systems may include but are not limited to – visual, light traps, boards, soil sampling, field scouting, random sampling, pheromone traps, sticky traps, indicators; evidence of two is required.

Outcome 2

Monitor crop plant pests and diseases and detect any crop anomalies.

Performance criteria

- 2.1 Carry out crop plant pest and disease monitoring in the field.
- 2.2 Identify presence of anomalies in the crop other than those specifically being monitored.
- Range anomalies may include but are not limited to – pests and/or diseases, variations in crop health, foreign bodies in the growing environment, structural issues, canopy issues, maintenance issues; evidence of two anomalies is required.

Outcome 3

Record, report and/or correct the results of monitoring activities.

Performance criteria

- 3.1 Record the results of monitoring, including any variations from normal.
- Range monitoring may include but is not limited to –
pests, disease, disorders, predators, beneficial organisms, crop health;
evidence of two is required.
- 3.2 Report to supervisor and/or correct anomalies detected in the growing environment.
- 3.3 Report to supervisor the results of corrective actions resulting from monitoring.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	18 August 2011	31 December 2024
Review	2	27 May 2021	N/A
Revision	3	25 November 2021	N/A

Consent and Moderation Requirements (CMR) reference	0232
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Muka Tangata – People, Food and Fibre Workforce Development Council qualifications@mukatangata.nz if you wish to suggest changes to the content of this unit standard.