

Title	Isolate a plant pathogen		
Level	6	Credits	4

Purpose	People credited with this unit standard are able to: identify infectious plant diseases by visualisation; isolate infectious agent; and confirm that the isolated agent causes the plant disease.
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Classification	Science > Microbiology
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Available grade	Achieved
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Guidance Information

- 1 All work must be carried out in accordance with the quality management system, documented protocol system or Standard Operating Procedures (SOP) acceptable in a commercial or research laboratory.
- 2 Health and Safety practices must conform to Australian/New Zealand Standard AS/NZS 2243 – *Safety in Laboratories* Parts 1, 2, 3, 7 and 10 available at <http://www.standards.co.nz>.
- 3 Legislation applicable to this unit standard includes:
Health and Safety at Work Act 2015;
Hazardous Substances and New Organisms Act 1996.
- 4 Glossary
Laboratory procedures refer to documented systems or processes of operation which may be found in a SOP manual, quality management system, or in protocol system documentation. These procedures are external and/or internal laboratory requirements governing laboratory work.
- 5 Recommended for entry: Unit 8025, *Describe plant microbiology*; and Unit 8029, *Work safely in a microbiological laboratory*.

Outcomes and performance criteria

Outcome 1

Identify infectious plant diseases by visualisation.

Performance criteria

- 1.1 Diseases are identified through visualisation in terms of characteristic disease symptoms.

Range two diseases.

Outcome 2

Isolate infectious agent.

Performance criteria

- 2.1 Sampling procedure is selected in accordance with the potential organism and the plant material.

- 2.2 Infectious agent is isolated using laboratory culturing techniques.

Range infectious agents include – bacterial, fungal.

Outcome 3

Confirm that the isolated agent causes the plant disease.

Performance criteria

- 3.1 Healthy plants are inoculated with the suspect pathogen and pathogenicity determined in accordance with laboratory procedures.

- 3.2 Agent is re-isolated from inoculated plants displaying original symptoms to confirm pathogenicity in accordance with laboratory procedures.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 February 1998	31 December 2014
Review	2	23 November 1999	31 December 2014
Review	3	21 May 2010	31 December 2025
Rollover	4	27 January 2015	31 December 2025
Review	5	27 September 2018	31 December 2025
Review	6	30 November 2023	31 December 2025

Consent and Moderation Requirements (CMR) reference

0113

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.