

<b>Title</b>	<b>Isolate a plant pathogen</b>		
<b>Level</b>	<b>6</b>	<b>Credits</b>	<b>4</b>

<b>Purpose</b>	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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<b>Classification</b>	Science > Microbiology
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<b>Available grade</b>	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

<b>Consent and Moderation Requirements (CMR) reference</b>	0113
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.