

Title	Monitor pests in a vegetable crop, and investigate strategies to rectify an imbalance		
Level	4	Credits	4

Purpose	This unit standard is for people working in any kind of vegetable production. People credited with this unit standard are able to: describe lifecycles of specific pests and diseases of a vegetable crop; monitor organism numbers; and investigate a range of strategies to rectify an imbalance between beneficial and non-beneficial insects for a specific vegetable crop.
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Classification	Horticulture > Vegetable Production
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Available grade	Achieved
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Guidance Information

- 1 *Workplace procedures* refer to oral or written instructions to staff on procedures for the worksite and equipment.
- 2 Legislation relevant to this unit standard includes but is not limited to –
 Health and Safety in Employment Act 1992;
 Employment Relations Act 2000;
 Resource Management Act 1991;
 Privacy Act 1993;
 Hazardous Substances and New Organism Act 1996 and related regulations;
 Occupational Safety and Health Approved Codes of Practice.
- 3 Relevant reference material may include but is not limited to – Lucas, Rob., *Managing Pests and Diseases – A Handbook for New Zealand Gardeners*. (Craig Potton Publishing, 2005).
- 4 Recommended entry information: Unit 1802, *Recognise common pests, diseases, and disorders important to a vegetable crop*.

Outcomes and performance criteria

Outcome 1

Describe lifecycles of specific pests and diseases of a vegetable crop.

Performance criteria

- 1.1 Specific pests that could affect a selected vegetable crop, and where appropriate beneficial organisms that could predate or parasitise them, are described at different stages of their lifecycle in terms of their lifecycle sequence, and crop signs and symptoms.

Range at least five pests, and where appropriate two beneficial organisms.

- 1.2 Specific diseases of a selected vegetable crop are described and the disease is named correctly at different stages of its lifecycle in terms of the disease lifecycle, and the crop signs and symptoms.

Range at least four diseases.

Outcome 2

Monitor organism numbers.

Performance criteria

- 2.1 Disease signs or symptoms are randomly sampled from the crop, and reported when numbers reach a stated threshold level in accordance with workplace procedures.

- 2.2 Monitoring systems are monitored and cleaned regularly in accordance with workplace procedures, and when a threshold number of specific insects are detected it is reported, in accordance with workplace procedures.

Range may include but not limited to – pheromone traps, sticky traps, indicators.

- 2.3 Random samples of plant material are examined and specific species of pest and predator or parasite are counted and reported in accordance with workplace procedures.

Outcome 3

Investigate a range of strategies to rectify an imbalance between beneficial and non-beneficial insects for a specific vegetable crop.

Performance criteria

- 3.1 Characteristics of pesticides used to control production plant pests for a specific vegetable crop are identified in accordance with workplace procedures.

Range pest controlled, chemical group, formulation, toxicity, mode of action, resistance potential, impact on beneficial and non-beneficial insects.

- 3.2 Agrichemicals, application rates, and timing are determined to redress the balance between pests and parasites or predators, or to reduce any potential disease problem for a specific vegetable crop.

- 3.3 An integrated pest management programme is developed for a specific vegetable crop, in terms of pest organisms it controls and required grower inputs in accordance with workplace procedures.

Range may include but is not limited to – cultural, biological and chemical control methods.

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	1 February 1994	31 December 2013
Review	2	28 November 1997	31 December 2013
Revision	3	19 July 2001	31 December 2013
Revision	4	13 March 2003	31 December 2013
Revision	5	24 February 2006	31 December 2013
Review	6	17 October 2008	31 December 2015
Review	7	18 August 2011	31 December 2015
Rollover	8	17 October 2013	31 December 2015
Rollover	9	17 September 2015	31 December 2019
Rollover	10	26 September 2019	31 December 2020

Consent and Moderation Requirements (CMR) reference	0032
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.