

Title	Develop an integrated pest management plan for a horticulture context, and manage its implementation and review		
Level	5	Credits	20

Purpose	People credited with this unit standard are able to: develop an integrated pest management (IPM) plan for a horticulture context to achieve production goals and standards; manage the implementation of an IPM plan; review the IPM plan and make recommendations for improvement.
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Classification	Horticulture > Production Horticulture
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Available grade	Achieved
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Guidance Information

- 1 Legislation relevant to this unit standard includes but are not limited to:
 - Health and Safety at Work Act 2015;
 - Hazardous Substances and New Organisms Act 1996;
 - Agricultural Compounds and Veterinary Medicines Act 1997; and any subsequent amendments.
- 2 All evidence presented in this unit standard must be in accordance with workplace procedures.
- 3 The regional and territorial authorities throughout New Zealand may have differing regulatory requirements. Any plan developed in Outcome 1 must comply with regional or territorial regulatory requirements.
- 4 Definitions

Continuous improvement methods and tools may refer to a flow chart, check sheet, control chart, histogram, fishbone diagram, Pareto chart, root cause, sampling, A4 story board, 5 Whys technique, PDCA (plan-do-check-act) cycle, The Five Ss method, value stream mapping.

An *integrated pest management (IPM) plan* refers to the steps required to implement the integrated pest management strategy (IPM strategy), for example setting targets and timelines, managing techniques and standards, establishing monitoring and reporting activities.

An *integrated pest management strategy (IPM strategy)* is a statement about the values and beliefs of the enterprise owners/managers, the general financial strategy, and general production goals.

Production Goals are statements which provide direction and purpose to an enterprise. Goals must be specific, measureable, attainable, realistic, and time based.

Regulatory compliance requirements refer to local body regulations, food safety, phytosanitary, or grade standards.

Standards may refer to requirements laid down in quality assurance documentation, industry standards, or workplace procedures.

Workplace procedures refer to verbal or written instructions to staff on procedures for implementing and monitoring crop plant management techniques. Workplace procedures must comply with health and safety legislation and be consistent with the workplace health and safety plan

- 5 Crop refers to any commercial horticulture crop from the following sectors: fruit, vegetable, nursery, and floriculture.
- 6 Integrated pest management techniques may include the use of – chemical tools (e.g. pheromone traps, agrichemical application, baits), biological control, habitat manipulation, modification of cultural practice, use of resistant crop varieties, legal control (e.g. movement control of crop, border security).

Outcomes and performance criteria

Outcome 1

Develop an IPM plan for a horticulture context to achieve production goals and standards.

Performance criteria

- 1.1 Identify production goals and standards for a crop.
- 1.2 Determine local conditions which favour the prevalence of pests, diseases, disorders and weeds.
- 1.3 Assess a range of integrated pest, disease, disorder and weed management techniques, and determine their relevance for a crop.
- 1.4 Develop an IPM strategy.
- 1.5 Develop an IPM plan that uses a combination of IPM techniques to implement the IPM strategy.
- 1.6 Identify contingencies that may affect integrated pest, disease, disorder and weed management techniques.

Range contingencies may include but are not limited to – equipment breakdown, weather events, labour availability, crop variability, biosecurity; evidence of three contingencies is required.
- 1.7 Identify local regulatory compliance requirements that impact on production.
- 1.8 Apply continuous improvement methods and/or tools for an IPM programme.

Range evidence of two methods and/or tools is required.

Outcome 2

Manage the implementation of an IPM plan.

Performance criteria

- 2.1 Monitor implementation of the IPM plan against the IPM strategy.
- 2.2 Manage contingencies.

Range contingencies may include but are not limited to – equipment breakdown, weather events, labour availability, crop variability, biosecurity; evidence of three contingencies is required.
- 2.3 Monitor the achievement of standards.
- 2.4 Manage procedures to rectify non-conformance of standards.
- 2.5 Apply continuous improvement methods and/or tools in the implementation of the IPM plan.

Outcome 3

Review the IPM plan and make recommendations for improvement.

Performance criteria

- 3.1 Analyse achievement of IPM plan against the IPM strategy, and production goals and standards.
- 3.2 Make recommendations for improvements to the IPM strategy and IPM plan.
- 3.3 Apply continuous improvement methods and/or tools in the review of the IPM plan.

Replacement information	This unit standard replaced unit standard 2810 and unit standard 27209.
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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	16 February 2017	31 December 2023
Review	2	16 December 2021	N/A

Consent and Moderation Requirements (CMR) reference

0052

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.