

<b>Title</b>	<b>Develop and apply an organic pest, disease, and weed management plan for an organic crop</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>20</b>

<b>Purpose</b>	<p>People credited with this unit standard are able to: demonstrate knowledge of the criteria for selection of an organically produced crop; use site data to plan and implement a soil and fertility management programme; identify pests and diseases associated with the selected crop, and plan for and carry out the management of these organisms using organic methods; and identify weeds that will negatively affect crop development and plan for weed management in the selected crop.</p>
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<b>Classification</b>	Horticulture > Production Horticulture
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<b>Available grade</b>	Achieved
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### Guidance Information

- The following standards apply to this unit standard:  
 Demeter Standards, Bio Dynamic Farming and Gardening Association, PO Box 39045, Wellington Mail Centre, Phone 04 589 5366, Fax 04 589 4365, <http://www.biodynamic.org.nz>;  
 BIO-GRO Standards, BIO-GRO New Zealand, PO Box 9693, Marion Square, Wellington, Phone 04 801 9741, Fax 04 801 9742, <http://www.bio-gro.co.nz>;  
 Agriquality New Zealand, Agriquality Organic Standards, <http://www.agriquality.co.nz>;  
 The Soil and Health Association of New Zealand (Organic Farm New Zealand), <http://www.organicnz.org>;  
 The New Zealand Food Safety Authority, <http://www.nzfsa.govt.nz/organics>;  
 NZS 8410:2003 *Organic production*, available from Standards New Zealand <http://www.standards.co.nz>.
- Legislation relevant to this unit standard includes but is not limited to: Health and Safety in Employment Act 1992; Resource Management Act 1991; and Hazardous Substances and New Organisms Act 1996.
- Recommended: Unit 21043, *Demonstrate knowledge of the principles of organic horticultural production*, or demonstrate equivalent knowledge and skills.

### Outcomes and performance criteria

#### Outcome 1

Demonstrate knowledge of the criteria for selection of an organically produced crop.

**Performance criteria**

- 1.1 Site is evaluated for production of the crop.
- Range climate, aspect, surrounding land use, past land use, distance to market, existing structures and shelter, soil profile.
- 1.2 Demand for crop production is identified and markets determined.
- Range volume of production required, quality specifications, cultivar.
- 1.3 Cultivar choice must consider characteristics associated with successful organic crop production.
- Range pest and disease resistance and tolerance, hardiness, expected volume of production.
- 1.4 Sequential planting plan is developed for annual crops.

**Outcome 2**

Use site data to plan and implement a soil and fertility management programme.

**Performance criteria**

- 2.1 Plan identifies existing soil characteristics.
- Range soil structure, fertility, chemical residues, soil tests.
- 2.2 Plan identifies nutritional requirements for selected crops and specifies organic methods to maximise production.
- Range crop rotation, addition of organic matter, mineral fertilisers, liquid fertilisers, green manure, timing of fertiliser application.
- 2.3 Plan specifies farm machinery and implements to minimise soil compaction.
- 2.4 Soil and fertility management practices are implemented in accordance with the plan.

**Outcome 3**

Identify pests and diseases associated with the selected crop, and plan for and carry out the management of these organisms using organic methods.

**Performance criteria**

- 3.1 Pests of the selected crop and type of damage they cause are identified.

- 3.2 Plan specifies organic pest control to manage identified pests.
- Range may include but is not limited to – tillage, crop rotation, companion plants, barriers, repellents, biological controls, approved chemical controls, beneficial organisms, life cycle disruption.
- 3.3 Diseases affecting the selected crop are identified.
- 3.4 Plan specifies suitable organic disease control methods.
- Range may include but is not limited to – tillage, crop rotation, use of traps, host plants, sacrificial plants, barriers, repellents, companion plants, biological controls, approved chemical controls, beneficial organisms, life cycle disruption, timing of control methods.
- 3.5 Plan specifies requirements for monitoring the crop and the need for control intervention.
- 3.6 Organic pest and disease management methods are applied in accordance with the plan.

#### Outcome 4

Identify weeds that will negatively affect crop development, plan for and carry out weed management in the selected crop.

#### Performance criteria

- 4.1 Weeds that pose a threat at each stage of the crop’s development, the type of threat, and the most appropriate method of control, are identified.
- 4.2 Weed management plan specifies the chosen weed control methods.
- Range positive and negative impacts of weed control methods must be considered.
- 4.3 Weed control methods are implemented in accordance with the weed management plan.

<b>Replacement information</b>	This unit standard replaced unit standard 10329 and unit standard 10330.
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**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	27 October 2006	31 December 2023
Review	2	24 November 2022	31 December 2023

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