

<b>Title</b>	<b>Plan and develop a composting facility</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>20</b>

<b>Purpose</b>	People credited with this unit standard are able to: review documentation and plan for a composting production site; review and plan raw material supplies; and develop a composting facility for resource recovery activity.
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<b>Classification</b>	Resource Recovery > Composting
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 All work practices must comply with the: Health and Safety at Work Act 2015; Resource Management Act (RMA) 1991; Hazardous Substances and New Organisms Act 1996; NZS 4454:2005 Composts, soil conditioners and mulches; The New Zealand Waste Strategy: Reducing Harm, Improving Efficiency 2010 Ministry for the Environment, available at <http://www.mfe.govt.nz>; and HSNO Codes of Practice for Hazardous Substances, available at <https://worksafe.govt.nz/>.
- 2 Personal protective equipment (PPE) must be used throughout operations in accordance with company procedures. PPE includes but is not limited to – gloves, eye protection, appropriate footwear, overalls, hearing protection, respirator or facemask, high visibility clothing, fire extinguisher, first aid kit, eye wash kit, face shield/mask; hard hat.
- 3 Definitions
 

*Company procedures* mean the documented methods for performing work activities and include health and safety, environmental, and quality management requirements. They may refer to manuals, codes of practice, or policy statements.

*Organic* in this industry refers to materials that are putrescible or are of animal or vegetable origin.

*Products* may include but are not limited to – standard and specialised potting mixes; general and special purpose landscaping soils; compost, composted and pasteurised mulches for various applications; composted and pasteurised soil conditioners for various applications; loose fill materials; ornamental mulches; effluent, storm water or emission treatment products; products for erosion control or site remediation; products for agricultural disease suppression and other products for specialised applications.

*Raw materials* (compostable organic materials) may include but are not limited to – plant materials, food waste, wood and timber, sawdust, wood shavings, crop residuals, forestry residuals, manures, biosolids, sewage grit and screenings, fats and oils, organic sludges, paper-based materials, paper mill wastes.

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## Outcomes and performance criteria

### Outcome 1

Review documentation and plan for a composting production site for resource recovery activity.

#### Performance criteria

1.1 Relevant documents are reviewed to identify company constraints and commercial objectives related to compliance requirements and product range and specifications.

Range documentation may include but is not limited to – district and regional plans, resource consents; sensitivity of neighbouring sites supplier contracts, quality systems, site plan; site plan may include but is not limited to – drop off, processing, storage, sales area.

1.2 Site safety plan is developed in terms of the health and safety requirements necessary to ensure the safety of all personnel and the public in accordance with regulatory requirements.

1.3 Site safety plan classifies and identifies all site areas in relation to health and safety at a specific composting facility.

Range includes but is not limited to – evacuation area, first aid, restricted areas and their respective levels of danger; location of – first aid and emergency facilities, personal protective equipment.

1.4 Technology options for production of compost are compared and contrasted in terms of cost effectiveness, performance, intersystem compatibility, safety of the operations, and suitability for the production site.

1.5 Production plan is developed in terms of the commercial objectives of the composting facility.

### Outcome 2

Review and plan raw material supplies.

#### Performance criteria

2.1 Current raw materials supplies are reviewed for suitability for production of defined compost products and other company criteria.

2.2 A gap analysis identifies complementary raw material characteristics and quantities required for manufacturing defined products.

- 2.3 Complementary raw material types that are consistent with requirements are identified through review of relevant literature and company information/records.
- 2.4 Representative samples of prioritised complementary raw materials are gained from potential sources of supply, and characteristics/risks are evaluated and confirmed.

### Outcome 3

Develop a composting facility for resource recovery activity.

#### Performance criteria

- 3.1 The areas of the production site are developed in accordance with the operating procedures for the composting technology to be implemented, the site plan, the site safety plan, and the production plan.

Range drop off, processing, storage, sales.

- 3.2 The development process complies with the requirements of the RMA, HSW Act, NZS 4454, and the New Zealand Waste Strategy.

- 3.3 The development process takes into account environmental impacts and meets related requirements.

Range impacts include but are not limited to – odour, bioaerosols, anthropogenic greenhouse gas and other gaseous emissions, particulate (dusts), litter, noise, wastewater runoff and/or leachate, pests, pathogens.

- 3.4 Supply contracts are negotiated and secured on suitable trading terms in accordance with company practice.

Range supplies may include but are not limited to – raw material, equipment, machinery, general materials.

**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	23 April 2007	31 December 2025
Rollover and Revision	2	28 March 2019	31 December 2025
Review	3	27 March 2025	31 December 2025

#### Consent and Moderation Requirements (CMR) reference

0014

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