

40583 Identify feedstocks, systems and equipment used in compost production

Kaupae Level	2
Whiwhinga Credit	2
Whāinga Purpose	<p>This skill standard is intended for people who are new to the resource recovery industry or people who are already working in a resource recovery environment which processes organic materials for compost production. People credited with this skill standard will be able to identify feedstocks, composting systems and equipment used in compost production.</p> <p>This skill standard aligns with the New Zealand Certificate in Resource Recovery (Level 3) with strands in Organic Materials Processing, Recovery and Recycling, and Metal Recycling [Ref: 2744].</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Identify feedstocks, systems and equipment used in compost production.	a. Identify feedstock categories for compost production.
	b. Identify materials that are unsuitable for compost production and the potential problem(s) caused by each material.
	c. Explain the four phases of the composting process.
	d. Describe different composting systems and their advantages and limitations.
	e. Describe the different types and subgroups of equipment and their use for compost production.
	f. Identify preparation required for different feedstocks before mixing in a compost recipe.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Evidence presented for assessment against this skill standard may include oral, visual, video, written and/or practical activities demonstrated in the workplace.

Evidence presented for assessment against this skill standard must be consistent with safe working practices and be in accordance with applicable service information, workplace procedures and legislative requirements.

Definitions

Feedstock refers to organic materials used for composting or related biological treatment systems.

Maturation refers to the cooling and curing stage of the composting process.

Mesophilic refers to the initial decomposition and heating stage of the composting process from ambient temperatures to 45 degrees.

Thermophilic refers to the hot phase of the composting process with temperatures increasing from 45 up to 70 degrees.

Workplace procedures refer to organisation policies and procedures that are documented in memo, electronic, or manual format and available in the workplace. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, manufacturer's requirements, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the resource recovery industry.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content**Compost production**

- Compost equipment - screens, shredders, turning equipment, monitoring equipment.
- Compost systems - open windrow, aerated static pile, in-vessel composting, vermicomposting.
- Phases of the composting process such as mesophilic, thermophilic, maturation and quality control.
- Quality control including monitoring and testing.

Rauemi | Resources

Legislation, regulations and industry guidelines relevant to this skill standard include but are not limited to:

- Hazardous Substances and New Organisms Act 1996.
- Health and Safety at Work Act 2015.
- New Zealand Standards. NZS 4454:2005 Composts, soil conditioners and mulches. Available from: <https://www.standards.govt.nz/>.
- NSW Environment Protection Authority. (2014). Waste Classification Guidelines. Part 1: Classifying waste. Available from: <https://www.epa.nsw.gov.au/>.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this skill standard will take precedence for assessment purposes, pending review of this skill standard. Legislation can be accessed at:

<https://www.legislation.govt.nz>.

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Service Sector > Resource Recovery > Composting
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0014

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	27 March 2025	N/A
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	31 December 2029		

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development at qualifications@hangaarorau.nz to suggest changes to the content of this skill standard.