Title	Explain and conduct the separation of vermicompost from worm and package worms for transportation		
Level	3	Credits	4

Purpose	This unit standard is for people working in, or who wish to work in resource recovery vermicomposting.
	People credited with this unit standard are able to: explain the make-up of vermicompost and methods of separation from worms; separate vermicompost from worms; and package worms for transportation.

Classification	Resource Recovery > Composting
Available grade	Achieved

#### **Guidance Information**

- 1 All work practices must comply with the: Health and Safety at Work Act 2015; Resource Management Act 1991; Hazardous Substances and New Organisms Act 1996; NZS 4454:2005 *Composts, soil conditioners and mulches*; and *The New Zealand Waste Strategy: Reducing Harm, Improving Efficiency* 2010 Ministry for the Environment, available at <u>http://www.mfe.govt.nz</u>.
- 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.

*Optimum environment* includes moisture content, feedstock, drainage, aeration, temperature, covers, and microbiology.

*Vermicomposting* refers to a mixture of vermicast and unprocessed organic matter; it may also contain worm capsules and small worms. The term may also apply to a mix of vermicast and composted material.

A vermicomposting unit is made up of a bed in which worms are placed, and worm cast and (depending on the type of unit) liquid fertilizer is produced. The bed may include a combination of – of aged manures or composted materials, shredded paper products, decomposing leaves, straw, soil, vegetable or fruit discard materials.

# Outcomes and performance criteria

# Outcome 1

Explain the make-up of vermicompost and methods of separating it from worms.

#### Performance criteria

- 1.1 The make-up of vermicompost is explained in terms of its benefits to soil particles and plant nutrition and the soil food web processes.
- 1.2 Two common methods used to separate vermicompost from worms are explained in terms of their respective advantages and disadvantages.

#### Outcome 2

Separate vermicompost from worms.

#### Performance criteria

- 2.1 The method used to separate the vermicompost from worms is the most applicable to the vermicomposting unit and the environment.
  - Range evidence of two separation methods is required; evidence is required for a different separation method for each vermicomposting unit.
- 2.2 Monitoring of the unit during the separation process ensures that the levels moisture and temperature ensure the health and vitality of the worms.
- 2.3 The vermicompost is screened to remove potential contaminants during separation process in accordance with company procedures.

Range evidence of two screening methods is required.

# Outcome 3

Package worms for transportation.

# Performance criteria

3.1 Packaging of worms for despatch is in accordance with the quantity involved and the time and distance over which it is to travel.

Range airspace, moisture, temperature.

- 3.2 All packaging is clearly labelled in accordance with despatch requirements and distance over which it will travel.
  - Range feedstock sources, date of production, contains live worms, weight, recipient and supplier details.

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