



Australian Government

Department of Education, Employment and Workplace Relations

AHCCOM401A Develop a composting recipe

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers developing a composting recipe and defines the standard required to: calculate a compost recipe that is consistent with the technology and method available from combinations of raw materials; produce a compost recipe that will achieve defined product specifications; document compost production plan consistent with plant capabilities and site constraints.
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Application of the Unit

Application of the unit	This unit applies to production managers who calculate composting recipes from documented formulas to prepare and mix raw materials of known characteristics in specified proportions for composting.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Identify and characterise raw materials	<p>1.1.Raw materials are visually identified and categorised against established enterprise criteria.</p> <p>1.2.Raw material characteristics are entered into enterprise compost recipe calculator to achieve a balanced recipe.</p> <p>1.3.Where raw material identity or characteristics are uncertain or, designated personnel are requested to take representative samples of material for laboratory analysis.</p> <p>1.4.Receivable and handling requirements for raw materials are determined.</p>
2. Establish production objectives	<p>2.1.Identified market requirements and priorities are translated into product specifications using product performance data and enterprise records.</p> <p>2.2.Raw material combinations that can potentially meet market requirements are identified.</p>
3. Calculate compost recipe	<p>3.1.Raw material characteristics are recorded in enterprise compost recipe.</p> <p>3.2.Raw material proportions or ratios suitable for composting by the enterprise by a particular technology and method are specified by weight in resulting compost recipe.</p> <p>3.3.Pre-processing requirements of raw materials, feasible volumes of compost upon formation, and compost production plan are determined.</p> <p>3.4.Composting batch management procedures are reviewed and any required variations to standard management procedures are defined and documented as a new procedure.</p> <p>3.5.Compost production schedule is estimated and documented.</p> <p>3.6.Compatibility of resulting compost recipe and production schedule is confirmed against documented customer requirements and priorities.</p> <p>3.7.Density of pre-processed raw materials is quantified, and weight-based recipe is translated into volume-based recipe for production.</p> <p>3.8.Volumetric compost recipe and production procedures are recorded as operational batch or bucket recipe and procedure.</p>
4. Validate compost recipe	<p>4.1.Raw materials are pre-prepared and mixed according to new compost recipe to form feedstock for</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>composting.</p> <p>4.2. Composting batch is managed according to revised enterprise procedure.</p> <p>4.3. Composting process is monitored for efficiency in relation to estimated production schedule and enterprise requirements.</p> <p>4.4. Environmental and Occupational Health and Safety (OHS) aspects and impacts are monitored for compliance with enterprise plan and regulatory requirements.</p> <p>4.5. Faults, variations or problems observed at any stage of process are identified and remedial action is carried out to maintain effective compost production.</p> <p>4.6. Sampling and testing of material during composting is conducted to determine completion of production process.</p> <p>4.7. End product quality is evaluated against established product specifications.</p> <p>4.8. Compost recipe, production schedule and procedures are revised to improve process efficiency and reliability, and product compliance with defined specifications.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- documenting procedures
- interpreting and applying written procedures and formulas
- reading and interpreting laboratory results
- reading and interpreting sampling and testing data
- using a computer
- use oral communication skills/language competence to fulfil the job role as specified by the organisation including questioning, active listening, asking for clarification, negotiating solutions and responding to a range of views
- use numeracy skills to estimate, calculate and record routine and more complex workplace measures and data

REQUIRED SKILLS AND KNOWLEDGE

- use interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- control of hazards in handling raw materials and composting materials
- processing duration required for various raw materials
- range of commercial compost-based products
- raw materials and their characteristics
- relationship between key compost recipe variables and compost production
- systems, technologies and methods in compost production.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:</p> <ul style="list-style-type: none"> • calculate a compost recipe that is consistent with the technology and method available from combinations of raw materials • produce a compost recipe that will achieve defined product specifications • document compost production plan consistent with plant capabilities and site constraints.
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole.	
Composting recipes may include:	<ul style="list-style-type: none"> • those recipes from documented formulas to prepare and mix raw materials of known characteristics in specified proportions for composting.

Unit Sector(s)

Unit sector	Composting
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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