



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **AHCPHT405A Manage mushroom substrate preparation**

**Release: 1**

## AHCPT405A Manage mushroom substrate preparation

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers managing mushroom substrate preparation and defines the standard required to: monitor and manipulate all interactions between inputs, conditions and outputs for each stage of substrate process; record and analyse production data; establish and review farm procedures for mushroom substrate preparation; set and monitor productivity standards for mushroom substrate and rest of production cycle.
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### Application of the Unit

<b>Application of the unit</b>	This unit applies to the role of managers either in a general mushroom farming enterprise or in a specialist substrate preparation enterprise.
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### Licensing/Regulatory Information

Not Applicable

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Not Applicable

## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Confirm status of system requirements for mushroom substrate preparation	<p>1.1. Mushroom substrate preparation processes are overseen and managed to ensure that work is performed according to farm procedures, and that all equipment is operated according to manufacturer instructions and at a speed that maintains safe and continuous operation.</p> <p>1.2. Details of quantities of substrate required and dates/times to be achieved for each process stage are determined and communicated to personnel involved in the various stages of substrate preparation.</p> <p>1.3. Availability, quality, serviceability, and cleanliness of all rooms, work areas, machinery, equipment and materials required for mushroom substrate preparation are ascertained.</p> <p>1.4. Staff duties and responsibilities are allocated.</p> <p>1.5. Where problems with process are identified, remedial action is initiated as required and according to farm procedures.</p> <p>1.6. Personal Protective Equipment (PPE) and clothing are selected and used by all personnel involved in mushroom substrate processing tasks.</p> <p>1.7. Impact of mushroom substrate preparation processes on other enterprise activities is determined, personnel advised and adjustments to schedules and operations are made where required and according to farm procedures.</p> <p>1.8. Occupational Health and Safety (OHS) requirements and hazards associated with each task are identified and appropriate action is taken to minimise risks to self and others.</p> <p>1.9. Site quarantine protocols and farm and personal hygiene requirements are determined, applied and managed as required.</p> <p>1.10. All work of team is managed to ensure that it is performed according to farm procedures and in an environmentally aware and safe manner.</p>
2. Confirm quality and consistency of Phase II outputs	<p>2.1. Phase II process is managed to ensure it conforms to required production schedule and farm procedures.</p> <p>2.2. Key factors and critical points are recorded.</p> <p>2.3. Random representative samples of end product are taken in line with farm procedures and are dispatched to laboratory for analysis.</p> <p>2.4. Test results are recorded in farm records, compared</p>

ELEMENT	PERFORMANCE CRITERIA
	to farm standards and remedial action is taken if required.
3. Monitor and manipulate spawning and spawn run	<p>3.1. Condition and quality of compost are assessed before spawning and, if required, remedial action is taken according to farm procedures.</p> <p>3.2. Temperature readings are taken and recorded according to farm procedures and adjustments are made to thermostat if required.</p> <p>3.3. Carbon dioxide content is measured, recorded and controlled according to farm procedures.</p> <p>3.4. Spawn growth and appearance of mycelium are monitored during spawn run period.</p> <p>3.5. Where supplement is to be added to substrate at spawning, product and its rate of application are selected and instructions are given to appropriate personnel.</p> <p>3.6. Room hygiene and occurrence of pests and diseases are monitored and, if required, control measures are implemented according to farm procedures.</p>
4. Manage clean-up procedure	<p>4.1. Clean-up activities at the end of each process stage are managed to ensure they comply with farm procedures.</p> <p>4.2. Cook-out or chemical disinfestations treatment is conducted as appropriate prior to removal of spent substrate.</p> <p>4.3. Return of equipment and hand tools to storage area after cleaning, basic preventative maintenance and checking for future serviceability is monitored to ensure compliance with farm procedures.</p> <p>4.4. Faults are reported to maintenance personnel for remedial action.</p> <p>4.5. Inventory of all inputs is made to ensure availability of sufficient stock for future use.</p> <p>4.6. Records are completed legibly and accurately according to farm procedures.</p> <p>4.7. Feedback on performance is provided to personnel under supervision.</p> <p>4.8. Own performance is assessed, feedback on performance sought and any required improvements are noted for future action.</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

- identifying hazards and overseeing safe work practices
- accepting responsibility for quality of own work
- contributing to productive work environment
- developing work schedules
- explaining quality standards and task requirements to personnel
- managing own work and that of others
- monitoring and recording key parameters including environmental impacts
- observing employment requirements
- promoting workplace cooperation
- use literacy skills to read, interpret and follow organisational policies and procedures, develop sequenced written instructions, record accurately and legibly information collected and select and apply procedures to a range of tasks
- 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
- 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

- casing function, application, required depth and required surface structure
- detailed knowledge of all stages in Phase II substrate preparation process
- farm standards and procedures, including those relating to OHS, food safety, Hazard Analysis Critical Control Point (HACCP), quality systems, emergency procedures, organisational structure and workplace communication channels and protocols
- how mushrooms are grown, with a focus on interaction between compost, environmental factors (such as temperature, water, relative humidity, carbon dioxide and ammonia) and mushroom growth
- industry and workplace awards and conditions
- key parameters to be recorded and monitored and appropriate ranges in relation to temperature, ammonia, relative humidity, moisture content, carbon dioxide and time
- overview of Phase I compost production
- overview of mushroom production cycle and possible impact of deviations from

**REQUIRED SKILLS AND KNOWLEDGE**

- farm standards on substrate and rest of production cycle
- relevant legislation and industry codes of practice
- site quarantine protocols.

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
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.	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<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"> <li>• monitor and manipulate all interactions between inputs, conditions and outputs for each stage of substrate process</li> <li>• record and analyse production data</li> <li>• establish and review farm procedures for mushroom substrate preparation</li> <li>• set and monitor productivity standards for mushroom substrate and rest of production cycle.</li> </ul>
<b>Context of and specific resources for assessment</b>	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

<b>RANGE STATEMENT</b>	
The range statement relates to the unit of competency as a whole.	
Mushroom substrate may include:	<ul style="list-style-type: none"> <li>• the range of ingredients and processes required for Phase II compost preparation and a range of mushroom substrate components and products.</li> </ul>

## Unit Sector(s)



<b>Unit sector</b>	Production horticulture
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### Co-requisite units

<b>Co-requisite units</b>		

### Competency field

<b>Competency field</b>	
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