



Australian Government

AHCPHT412 Manage mushroom substrate preparation

Release: 1

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Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to manage mushroom substrate preparation, including confirming status of system requirements, confirming quality and consistency of Phase II outputs, monitoring and manipulating spawning and spawn run, and managing clean-up procedures.

The unit applies to individuals who apply specialist skills and knowledge to manage mushroom substrate preparation. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

All work is carried out to comply with workplace procedures, health and safety in the workplace requirements, legislative and regulatory requirements, and sustainability and biosecurity practices.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Production Horticulture (PHT)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Confirm status of system requirements for mushroom substrate	1.1 Determine details of quantities of substrate required, and dates and times to be achieved for each process stage, and inform personnel 1.2 Determine availability, quality, serviceability and cleanliness of all

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
preparation	rooms, work areas, machinery, equipment and materials for mushroom substrate preparation 1.3 Allocate staff duties and responsibilities according to mushroom substrate preparation plan 1.4 Identify and implement site quarantine protocols and workplace and personal hygiene requirements for mushroom substrate preparation 1.5 Identify hazards and assess risks in the workplace, and implement control measures to manage risks according to workplace health and safety procedures
2. Confirm quality and consistency of Phase II outputs	2.1 Confirm Phase II process conforms to required production schedule and workplace procedures 2.2 Measure and record key factors and critical points 2.3 Take random samples of end product and dispatch for analysis 2.4 Record test results, compare to standards and take remedial action
3. Monitor and manipulate spawning and spawn run	3.1 Assess condition and quality of compost before spawning, and take remedial action 3.2 Take temperature readings, and record and adjust if required 3.3 Measure, record and control carbon dioxide content 3.4 Monitor spawn growth and appearance of mycelium during spawn run period 3.5 Select product and its rate of application where supplement is to be added to substrate at spawning 3.6 Monitor room hygiene and occurrence of pests and diseases, and implement control measures
4. Manage clean-up procedure	4.1 Manage clean-up activities at the end of each process stage 4.2 Conduct cook-out or chemical disinfestations treatment before removal of spent substrate 4.3 Return tools and equipment to storage area after cleaning, performing basic preventative maintenance and checking for future serviceability 4.4 Report faults to maintenance personnel 4.5 Complete workplace records according to workplace requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Identify and interpret information regarding requirements for managing mushroom substrate preparation
Oral Communication	- Initiate discussions with staff, using clear language and standard industry terminology to communicate substrate preparation activities and allocate duties and responsibilities - Use clear language to report faults or variations from required settings to maintenance personnel

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCPTH412 Manage mushroom substrate preparation	AHCPTH405 Manage mushroom substrate preparation	Minor changes to application Major changes to performance criteria Foundation skills added Assessment requirements updated	Not equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPTH412 Manage mushroom substrate preparation

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has managed mushroom substrate preparation on at least two occasions, and has:

- set and monitored productivity standards for mushroom substrate and rest of production cycle
- maintained site quarantine protocols, and workplace and personal hygiene requirements
- applied relevant workplace health and safety procedures
- established and reviewed workplace procedures for mushroom substrate preparation
- recorded and analysed production data
- monitored and manipulated all interactions between inputs, conditions and outputs for each stage of substrate process.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles and practices for managing mushroom substrate preparation and casing production, including:
 - casing function, application, required depth and required surface structure
 - detailed knowledge of all stages in Phase II substrate preparation process
 - Hazard Analysis and Critical Control Points, 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 mushroom production cycle and possible impact of deviations from workplace standards on substrate and rest of production cycle
- overview of Phase I compost production
- food safety standards, legislation and industry codes of practice relevant to managing mushroom substrate preparation
- workplace requirements applicable to health and safety in the workplace for managing mushroom substrate preparation.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - a workplace setting or an environment that accurately represents workplace conditions
- specifications:
 - food safety standards, legislation and industry codes of practice relevant to managing mushroom substrate preparation
 - workplace requirements applicable to health and safety in the workplace for managing mushroom substrate preparation
- relationships:
 - staff and maintenance personnel
- timeframes:
 - according to job requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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