



Australian Government

AHCPHT512 Manage a controlled growing environment

Release: 1

AHC PHT512 Manage a controlled growing environment

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 a controlled growing environment, including identifying and determining crop requirements, preparing a management plan, and managing the controlled growing environment.

The unit applies to individuals who apply specialised skills and knowledge to the management of a controlled growing environment, and take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information, and analyse, design and communicate solutions to sometimes complex 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. Identify crop requirements	1.1 Determine crop growth and production requirements according to a documented production plan 1.2 Research environmental parameters and optimal growing

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	conditions for the specific crop, using available information resources 1.3 Identify and record controlled growing environment factors
2. Determine requirements for a controlled growing environment	2.1 Identify, cost and confirm availability of structures, machinery, equipment and resources required to control environmental conditions 2.2 Identify detrimental environmental impacts associated with the controlled growing environment system
3. Prepare a management plan for the controlled growing environment	3.1 Determine management objectives for the controlled growing environment consistent with production plan and market requirements for crop quantity and quality 3.2 Develop a schedule of environmental control procedures according to controlled environment management objectives 3.3 Evaluate and report staff training needs for operation and maintenance of environmental control systems 3.4 Negotiate and document a budget supporting the controlled environment management plan 3.5 Determine and communicate roles and responsibilities of staff 3.6 Document the controlled growing environment plan
4. Manage the controlled growing environment	4.1 Identify controlled environment indicators and thresholds for remedial action, and monitoring frequency 4.2 Develop monitoring procedures according to the requirements of the production plan, and communicate to staff 4.3 Record, analyse and apply monitoring data to ensure optimal plant development 4.4 Document and report remedial action undertaken 4.5 Monitor costs of the controlled growing environment system against budget 4.6 Record and report budget adjustments 4.7 Evaluate recorded information, budget data and production outputs 4.8 Document and report operational achievements towards management objectives

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 production requirements for a controlled growing environment plan
Oral communication	- Initiate discussions with management, using clear language to discuss production requirements, controlled growing environment plan and operational achievement report, and to negotiate budget - Use clear language with staff to communicate roles and responsibilities and monitoring procedures
Numeracy	- Access and analyse data for input into the controlled growing environment plan, monitoring procedures and operational achievement report - Calculate structures, machinery, equipment and resource costs - Document controlled growing environment budget and adjustments

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCPT512 Manage a controlled growing environment	AHCPT503 Manage a controlled growing environment	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 AHCPTH512 Manage a controlled growing environment

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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 a controlled growing environment on at least one occasion, and has:

- researched, evaluated and recorded relevant information about production requirements, growing requirements of the crop, and controlled growing environment factors
- developed a controlled growing environment plan to cover staff training, budgets, operating procedures and remedial actions
- developed environmental monitoring procedures
- evaluated, documented and reported the achievements towards management objectives.

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 controlled growing environments, including:
 - controlled environmental conditions for crop plant physiology, growth stages and product quality and quantity
 - legislation and regulations relevant to controlled growing environment systems
 - market requirements for crop quantity and quality
 - monitoring, analysis and recording systems
 - plant physiology and biochemistry
 - quality production methods and techniques for a range of controlled environment plants
 - staff training requirements
 - techniques and methods of implementing optimal growing conditions for a range of horticultural crops.

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
- resources, equipment and materials:
 - industry publications and internet sources of information relevant to the management of a controlled growing environment and development of a controlled growing environment plan
 - production plan
- specifications:
 - legislation and regulations relevant to controlled growing environment systems
- relationships:
 - management and staff
- 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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