



Australian Government

AHCPER320 Manage plant pests, diseases and disorders in a permaculture system

Release: 1

AHCPER320 Manage plant pests, diseases and disorders in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage plant pests, diseases and disorders in a permaculture system. It requires knowledge of healthy permaculture systems and the pests, diseases and disorders that might need management. It includes focussing on solutions in an integrated design, rather than reacting to infestations.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

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

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify existing and potential pests, diseases and disorders in the permaculture system	1.1 Using observation of plants in the permaculture system, identify existing or potential for pest attack, disease or disorders 1.2 Using climatic data and weather observations, identify existing or potential for pest attack, disease or disorders

Element	Performance criteria
	1.3 Monitor balances within the system such as pest and predator balances 1.4 Maintain a record of observations
2. Research pest, disease and disorder prevention methods	2.1 Research pests, diseases and disorders using both primary and secondary sources 2.2 Consult widely and use both electronic and conventional reference material 2.3 Establish prevention methods for maintaining a healthy balance 2.4 Research possible negative effects of treatments on other elements of the permaculture system
3. Develop a pest and disease management program	3.1 Develop a plan based on the research conducted and the observations made 3.2 Include information about weather conditions, time of year, cycle of pests or disease vectors in the management program
4. Implement the pest and disease management program	4.1 Provide solutions that address the interactions of many elements in the system rather than spot treating outbreaks 4.2 Avoid practices that spread disease, such as propagating using diseased plants, or using un-sanitised tools when pruning orchard trees 4.3 Provide habitat and microclimate conditions for useful insects, plants, birds and animals 4.4 Carry out permaculture practices that minimise the risk of pest and disease problems 4.5 Update the management program regularly so that it is active and useful to the permaculture system
5. Monitor and record the management of plant pests, diseases and disorders over time	5.1 Keep records of pest and disease control operations, noting weather conditions and times of year 5.2 Use records to enable predictions of or responses to possible disease and pest recurrences in similar weather or times of the year 5.3 Maintain records over time to build a history of the permaculture system

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPR320 Manage plant pests, diseases and disorders in a permaculture system

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Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify existing and potential pests, diseases and disorders in the system
- research methods of managing pests, diseases and disorders in a permaculture system
- develop a pest and disease management plan
- implement a pest and disease management plan
- monitor pest and disease managements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to managing plant pests, diseases and disorders
- principles of maintaining healthy permaculture crops, such as:
 - companion planting
 - increasing diversity
 - providing habitat and food for pests' natural predators
 - healthy, balanced soil
 - minimal use of soluble fertilisers
- allowable control methods in organic systems, such as
 - deterrent organic sprays
 - pheromone traps and lures
 - predatory and/or parasitic insects, mites and other organisms as part of biological control
 - nutrient additives
 - crop rotation

- covers and netting
- BT (*Bacillus thuringiensis*) and other action-specific micro-organisms
- symptoms of disease and disorders in plants
- care needed to avoid transferring infections (such as through grafting and pruning practices)
- stages of development of pest organisms and signs of pest presence on plants and animals
- planting for insectivorous birds, lizards, frogs and microbats
- fungal, bacterial and viral infestations and their symptoms
- disease vectors and plants that harbor them
- companion planting
- succession planting

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

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