



**Australian Government**

# **AHCPER331 Coordinate propagation activities for a permaculture system**

**Release: 1**

# AHCPER331 Coordinate propagation activities for a permaculture system

## Modification History

| Release   | Comments                                                                                                                    |
|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 9.0. |

## Application

This unit of competency describes the skills and knowledge required to plan propagation activities for a permaculture system, including identification and sourcing of propagation material, seasonal propagation activities, and application of permaculture and organic principles.

The unit applies to individuals who work under broad direction and take responsibility for their own work, including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources, and complete routine activities.

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

## Pre-requisite Unit

Nil

## Unit Sector

Permaculture (PER)

## 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. Research propagation requirements for a permaculture system | 1.1 Assess propagation needs according to permaculture system design<br>1.2 Determine source and availability of propagation material<br>1.3 Determine numbers of new plants to be produced for the needs of |

| Elements                                              | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i>      | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                       | the system and/or for swapping, selling or community needs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2. Develop a propagation plan for permaculture system | 2.1 Determine methods of propagation for each species<br>2.2 Identify hazards, assess risks and specify controls for selected propagation methods according to workplace health and safety procedures<br>2.3 Prepare a propagation plan according to researched outcomes<br>2.4 Prepare seasonal schedule of propagation activity<br>2.5 Maintain propagation plan records                                                                                                                                                                       |
| 3. Implement propagation plan for permaculture system | 3.1 Schedule propagation activity according to propagation plan and workplace safety procedures<br>3.2 Ensure availability of space in propagating area for propagation activity<br>3.3 Prepare materials and equipment for propagation work<br>3.4 Organise propagules and apply pre-treatments according to propagation plan<br>3.5 Transfer successfully propagated plants into subsequent growing conditions according to propagation and growing plan<br>3.6 Grow propagated plants according to propagation plan and cultural requirements |
| 4. Maintain propagated plants to end use              | 4.1 Maintain optimal growing and cultural conditions for new plants<br>4.2 Monitor and treat pest or disease according to permaculture practice<br>4.3 Remove defective plants according to biosecurity and permaculture procedures<br>4.4 Apply treatments to new plants according to organic and permaculture procedures<br>4.5 Ensure plants are pre-conditioned ready for planting/distribution                                                                                                                                              |
| 5. Maintain a healthy and orderly propagation area    | 5.1 Maintain hygiene practices in propagation facilities according to workplace hygiene and biosecurity procedures<br>5.2 Store surplus propagation resources and materials according to workplace procedures<br>5.3 Maintain records and update propagation plan according to workplace procedures                                                                                                                                                                                                                                              |

## Foundation Skills

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

## Unit Mapping Information

| Code and title current version                                           | Code and title previous version                                 | Comments                                                                                                                                                                                                                        | Equivalence status |
|--------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| AHCPER331<br>Coordinate propagation activities for a permaculture system | AHCPER318 Plan propagation activities for a permaculture system | Changes to title to correctly reflect job outcome<br><br>Changes to Application, Elements and Performance Criteria for clarity<br><br>Changes to Performance Evidence, Knowledge Evidence and Assessment Conditions for clarity | 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 AHCPER331 Coordinate propagation activities for a permaculture system

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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 coordinated and implemented propagation activities for at least four (4) different plants in a permaculture system and has:

- researched plant propagation requirements
- planned and scheduled plant propagation
- implemented propagation plan safely using at least four (4) of any of the following propagation techniques:
  - cuttings
  - layering
  - division
  - grafting
  - budding
  - seed sowing
- maintained propagated plants to maturity or distribution
- updated records and plant propagation plan.

## 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:

- permaculture principles and practices related to propagation, including:
  - using reclaimed or reused containers (suitably cleaned to avoid cross-contamination)
  - labelling systems using reclaimed materials
  - maintaining rare and unusual varieties
  - using edges and valuing the marginal – unusual plants in microclimates
  - sharing and swapping to increase biodiversity and mutual wellbeing

- preserving provenance of locally indigenous species
- testing and trialling for new plants or resistant varieties
- global food plant preservation, including seed saving
- sustainable sources of propagation materials, including:
  - seed banks
  - stock and garden beds
  - traded and bartered
  - purchased plants, plant material or seed
- propagation plan, including:
  - seasonal activities
  - seed saving
  - needs of the system for plants
  - mother plant health, location and frequency of use
  - schedules and timelines
- propagation techniques, including:
  - cuttings – softwood, hardwood, semi-hardwood, root and tip
  - layering – stool, aerial and runner
  - division
  - grafting – whip and tongue, saddle, wedge, approach and bench
  - budding – shield and patch
  - seed sowing
- growing media suitable for propagation in a permaculture garden setting
- plant growth, development and nutrition
- plant reproduction botany and physiology
- maintaining moisture levels in simple systems without causing disease
- systems for protecting new plants and seedlings, including:
  - polyhouse or shade-house systems, including hoop systems on garden beds
  - systems using reclaimed materials
  - naturally occurring or planned microclimates
- minimal environmental impact waste disposal and composting systems that destroy pathogens
- workplace health and safety hazards, risks and controls for propagation methods
- hygiene and biosecurity procedures in the propagation area.

## Assessment Conditions

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

- physical conditions:
  - skills must be demonstrated in a permaculture system or an environment that accurately represents workplace conditions

- resources, equipment and materials:
  - propagation tools and equipment
  - personal protective equipment
  - plant propagation materials specified in the performance evidence
  - growing environments for propagation methods
- specifications:
  - workplace procedures and processes
  - safety data sheets
- timeframes:
  - according to season specified for plant species.

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

## Links

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