



**Australian Government**

# **FWPFGM5212 Manage genetic resources**

**Release: 1**

# FWPFGM5212 Manage genetic resources

## Modification History

| Release | Comment                                                                                                                                                                                                                                |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Replaces equivalent unit FPIFGM5212A Manage genetic resources, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.<br><br>This is the first release of this unit in the new standards format. |

## Application

This unit of competency describes the outcomes required to manage the propagation process using sexual and asexual methods and tending nursery plants. It includes the propagation methods of seeding, cuttings, grafting, tissue culture and layering.

The unit applies to job roles including Arboriculture Manager, Forest Manager, Forestry Manager, Harvesting Manager, Nursery Manager, Plantation Establishment Manager, Plantation Manager and Production Manager.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication, however reference should be made to the Plant Breeders Rights Act 1994.

## Pre-requisite Unit

Nil

## Unit Sector

Forest Growing and Management

## Elements and Performance Criteria

| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>                                                                                                                                                                      |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Plan propagation                              | 1.1 Review organisational genetic resources policies and procedures in relation to the propagation and tending planning process.<br><br>1.2 Select and confirm quantities, timing, provenances, species and desirable characteristics for plants in development.<br><br>1.3 Document specifications and targets for production quantities, timing, provenances and species. |

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                             | 1.4 Review site environmental protection measures and relevant legislation and regulations.                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2. Implement genetic management plan        | <p>2.1 Select method of propagation for the target species.</p> <p>2.2 Obtain permits or licences required for production, collection and management of genetic resources</p> <p>2.3 Direct operational activities including hygiene, propagation, bed preparation and environmental considerations.</p> <p>2.4 Schedule and coordinate people, materials, tools and equipment required for propagation.</p> <p>2.5 Keep nursery staff informed of the plan, propagation methods and tending requirements.</p> |
| 3. Monitor and review genetic resource plan | <p>3.1 Inspect environmental protection measures for propagation, soil and drainage and implement corrections where necessary.</p> <p>3.2 Maintain communications with staff, clients and contractors about progress of propagation.</p> <p>3.3 Review propagation methods and implement corrections where necessary</p> <p>3.4 Record and report on genetic management results, with recommendations for future improvement.</p>                                                                              |

## Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

|                                    |                                                                                                                              |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Writing skills to:                 | <ul style="list-style-type: none"> <li>develop and document a plan for propagation</li> </ul>                                |
| Planning and organising skills to: | <ul style="list-style-type: none"> <li>schedule activities for propagation</li> <li>coordinate the work of staff.</li> </ul> |

## Range of Conditions

Not Applicable

## Unit Mapping Information

FPIFGM5212A Manage genetic resources

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

## Assessment Requirements for FWPFGM5212 Manage genetic resources

### Modification History

| Release | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | <p>Replaces equivalent unit FPIFGM5212A Manage genetic resources, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including 'Required Skills and Knowledge, Evidence Guide and Range Statement.</p> |

### Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- use propagation techniques including:
  - seeds
  - cuttings
  - grafting
  - tissue cultures
  - layering
- schedule resources, materials and equipment required for propagation
- identify problems in the management of genetic resources and demonstrate appropriate response procedures
- efficiently and safely implement a genetic resource management plan, and organise and obtain required permits or licences
- record and report on genetic resource management.

### Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- organisational policies and procedures, and legislation relevant to processes for managing genetic resources
- genetic resources including sexual and asexual plant species
- provenance of genetic resources

- characteristics of genetic resources including:
  - growth rate
  - branch angle
  - branch height
  - timber density
- environmental protection requirements for managing genetic resources including:
  - fungal and insect control measures
- and action to limit impacts on:
  - selected forest vegetation
  - habitat
  - soil and water features
- methods of propagation including:
  - seeds
  - cuttings
  - grafting
  - tissue cultures
  - layering
- genetic resources and tending strategies
- regeneration principles and methods
- hydrology and hydrological principles
- plant identification and classification skills
- ecology and ecological interactions
- soil types and structure
- nursery hygiene and sterilisation techniques
- types of tools and equipment used for managing genetic resources, and procedures for their use, operation and maintenance
- procedures for recording and reporting workplace information.
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## Assessment Conditions

The following resources must be made available:

- tools and equipment relevant to the management of genetic resources
- relevant personnel for the purposes of communicating information
- documents, spreadsheets and commonly used proforma documents
- organisational policies and procedures relevant to managing genetic resources
- PPE suitable to manage genetic resources.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

### Assessor requirements

#### Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

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