



Australian Government

FWPFGM5215 Breed Trees

Release: 1

FWPFGM5215 Breed Trees

Modification History

Release	Comment
1	Replaces equivalent unit FPIFGM5215A Breed trees, 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.

Application

This unit of competency describes the outcomes required to improve yield through improved tree breeding. It includes conducting consultative processes and monitoring and analysis of the effectiveness of the breeding.

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.

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 tree breeding	1.1 Analyse requirement for tree breeding. 1.2 Review relevant site environmental protection measures, and legislative and regulatory requirements. 1.3 Check timeline and budget for breeding. 1.4 Identify desirable breeding characteristics for the breeding plan 1.5 Select appropriate reproduction techniques to optimise propagation

	of the trees 1.6 Consult and obtain input to inform the breeding plan. 1.7 Develop a documented breeding plan and obtain necessary approvals.
2. Implement breeding operation	2.1 Obtain required resources and authorisations to implement breeding operation. 2.2 Implement emergency treatments and hazard notification procedures. 2.3 Communicate plan and explain roles and responsibilities to the work team. 2.4 Implement breeding plan with reference to budget, schedule, performance indicators and objectives.
3. Monitor tree breeding	3.1 Obtain data about performance at key milestones or established review periods. 3.2 Check that environmental, WHS, organisational and legislative compliance requirements are met and that documentation is accurate and up-to-date. 3.3 Maintain communication with operations supervisor throughout implementation of the plan. 3.4 Amend breeding plan to ensure that specifications, quality and performance targets are meeting planned requirements.
4. Review tree breeding	4.1 Review outcomes against established objectives. 4.2 Determine operational improvements for the future and formulate recommendations. 4.3 Record and report on tree breeding to appropriate personnel.

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:	- develop and document a plan for tree breeding - report on outcomes
Planning and organising skills to:	schedule activities to meet established goals and objectives.

Range of Conditions

Not Applicable

Unit Mapping Information

FPIFGM5215A Breed trees

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 FWPFGM5215 Breed Trees

Modification History

Release	Comment
1	Replaces equivalent unit FPIFGM5215A Breed trees, 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. 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.

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:

- follow organisational policies and procedures relevant to breeding trees
- plan a tree breeding operation using consultative processes with colleagues and stakeholders to obtain inputs
- ensure efficient and safe processes in tree breeding and that established timelines are met
- implement a tree breeding operation according to a documented plan and budget, and make adjustments to plan or operation
- review and analyse data on breeding operation and use findings to document improvements to future operations
- prepare and present a report on tree breeding outcomes including costs, processes and analysing findings of the breeding operation.

Knowledge Evidence

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

- applicable commonwealth, state or territory legislation, regulations, standards and codes of practice for breeding trees
- environmental protection requirements for breeding trees including:
 - soil disturbance measures
 - retention tree damage
 - fungal hygiene measures
 - identification of habitat trees

- chemical handling and application procedures
- organisational policies and procedures for breeding trees
- tree breeding data collection and analysis methods
- tree breeding characteristics including:
 - growth rate
 - tree form
 - branch angle
 - fibre length
 - fibre orientation
 - extractive content
 - salt tolerance
 - drought tolerance
 - density
- flowering times for target species
- reproduction techniques for target species including:
 - self and cross pollination
 - cuttings
 - grafting
 - layering
 - stolons
 - suckers
 - pollination techniques
- desirable features for selection of breeding stock
- genetic characteristics of target species
- hydrology and hydrological principles
- plant identification and classification skills
- ecology and ecological interactions
- soil types and structure
- authorisations and permits relevant to breeding trees including:
 - permits
 - approvals
 - licences relating to neighbouring properties
- and may relate to:
 - hours of operation
 - use and application of chemicals
 - the environment
- resources required to implement breeding operations
- procedures for recording and reporting workplace records and information.

Assessment Conditions

The following resources must be made available:

- organisational policies and procedures relevant to breeding trees
- selection of trees suitable for breeding operations
- ***resources relevant to implementing*** breeding operations
- PPE suitable to breed trees

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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