

**Modification history**

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 7.0.

FWPFGM3XXX	Manage mother plants
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to manage mother plants used in tree nurseries.</p> <p>The unit applies to individuals working as arboriculture workers, farm forestry workers, forestry workers, nursery workers, plantation establishment workers, plantation forest officers and silviculturists who are involved in tree nursery operations.</p> <p>All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	

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. Prepare to manage mother plants	1.1 Determine job requirements from work order or instruction, and where required, seek clarification from appropriate personnel 1.2 Confirm safety and environmental requirements for the task according to workplace procedures 1.3 Identify, assess and take actions to mitigate risks and hazards associated with managing mother trees 1.4 Identify emergency and evacuation procedures to follow in the event of an incident or accident 1.5 Consult with appropriate personnel to ensure that work is coordinated effectively with others in the workplace 1.6 Select tools, equipment and materials and check for serviceability according to workplace procedures
2. Select mother plants	2.1 Identify characteristics of plants that are suitable for use as mother plants 2.2 Select plants for use as mother plants 2.3 Follow workplace procedures for establishment of mother plants 2.4 Classify mother plants according to types and varieties 2.5 Label mother plants according to workplace procedures
3. Maintain mother plants	3.1 Ensure proper lighting to keep plant in vegetative phase in order to produce enough shoots for propagation throughout the year 3.2 Prune and train mother tree to maximize the number of healthy branches that can be trimmed to create clones 3.3 Manage tree canopy to avoid overcrowding and maintain light penetration 3.4 Water and fertilize mother plants 3.5 Test plant material for viruses and other organisms 3.6 Implement pest and insect control measures 3.7 Maintain records of mother plant
4. Replace mother plant	4.1 Assess strength of clones 4.2 Retire existing mother plant and replace with clone

<b>Foundation Skills</b>	
<i>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.</i>	
<b>Skill</b>	<b>Description</b>
Reading	<ul style="list-style-type: none"> <li>Extract information from industry guides and standard references on techniques for maintenance of mother plants</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace forms and plant labels</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Apply basic arithmetic functions to complete records related to mother plant maintenance</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Ask open and closed questions and use active listening techniques to clarify contents of work orders</li> </ul>

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
FWPFGM3XXX Manage mother plants	Not applicable	New unit	Not applicable

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47</a>
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TITLE	Assessment requirements for FWPFGM3XXX Manage mother plants
<b>Performance Evidence</b>	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that, on one occasion, the individual has:</p> <ul style="list-style-type: none"> <li>• identified a plant suitable for use as a mother plant using industry accepted criteria</li> <li>• maintained mother plants in a tree nursery</li> <li>• maintained records of mother plant according to workplace procedures</li> <li>• determined the need to replace an existing mother plant.</li> </ul>	

<b>Knowledge Evidence</b>	
<p>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:</p> <ul style="list-style-type: none"> <li>• uses of mother plants: <ul style="list-style-type: none"> <li>• cloning</li> <li>• scion</li> <li>• rootstock</li> </ul> </li> <li>• advantages of creating clones: <ul style="list-style-type: none"> <li>• size</li> <li>• quality</li> <li>• yield</li> <li>• shorten growing cycle</li> </ul> </li> <li>• genetic relationship between mother plants and clones</li> <li>• life cycle of mother plants</li> <li>• characteristics of plants suitable for use as mother plants: <ul style="list-style-type: none"> <li>• strong roots</li> <li>• strong stem</li> <li>• resistant to pests and fungi</li> <li>• large harvest yield</li> <li>• steady easy maturation</li> <li>• premium example of species</li> <li>• free of disease</li> <li>• health and vigorous enough to withstand material donation</li> </ul> </li> <li>• maintenance requirements of mother plants: <ul style="list-style-type: none"> <li>• lighting</li> <li>• pruning and training</li> <li>• managing tree canopy</li> <li>• watering</li> <li>• fertilising</li> <li>• testing plant material for viruses and other organisms</li> <li>• pest and insect control measures</li> </ul> </li> <li>• reasons for keeping mother trees in vegetative state</li> <li>• safe handling, use, storage and transport of chemicals</li> <li>• hazards and risks associated with maintaining mother plants.</li> </ul>	

<b>Assessment Conditions</b>	
<p>Assessment of the skills in this unit of competency must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions: <ul style="list-style-type: none"> <li>• skills must be demonstrated in a forest work environment or an environment that accurately represents workplace conditions</li> </ul> </li> <li>• resources, equipment and materials: <ul style="list-style-type: none"> <li>• mother plant and clones</li> </ul> </li> <li>• specifications:</li> </ul>	

<b>Assessment Conditions</b>	
<ul style="list-style-type: none"><li>access to workplace health, safety and environmental policies and procedures applicable to tree nursery operations.</li></ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	
<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47</a>

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