

Modification history

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

FWPFGM3XXX	Extract, clean, store and despatch tree seeds
Application	<p>This unit of competency describes the skills and knowledge required to extract, clean, store and despatch tree seeds.</p> <p>The unit applies to individuals 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>
Prerequisite Unit	Nil
Unit Sector	Forest Nursery

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 for processing tree seeds	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 extracting, cleaning, storing and despatching tree seeds 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. Extract tree seed	2.1 Receive and visually assess seed bearing material and ensure species is identified on container label 2.2 Weigh and allocate identifiers according to workplace procedures 2.3 Select appropriate extraction units and equipment and check for operational effectiveness 2.4 Operate and monitor seed extraction systems to extract maximum seed yield 2.5 Inspect seed capsules and reprocess as required to ensure maximum yield 2.6 Clean, maintain and calibrate extraction units and equipment and report abnormal operation or faults in equipment for corrective action 2.7 Dispose of residue and other waste material according to workplace procedures 2.8 Clean and maintain work areas according to workplace procedures 2.9 Record and report results of seed extraction process
3. Clean, treat and store tree seed	3.1 Separate seeds from other materials, weigh and store according to workplace procedures 3.2 Treat seeds to prevent deterioration according to seed species and workplace procedures 3.3 Record seed information onto inventory system accurately according to workplace procedures 3.4 Package seed for storage according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
4. Prepare tree seed sample for viability testing	4.1 Identify and check seed sample for testing according to work order 4.2 Remove seed sample from lot and prepare for testing according to workplace procedures 4.3 Clearly label and package representative seed sample for despatch to testing body according to workplace procedures 4.4 Record seed sample information onto inventory system accurately according to workplace procedures
5. Despatch tree seed	5.1 Interpret and check seed request specifications with appropriate personnel 5.2 Retrieve seed from storage, and calculate quantities and species of seed to meet request specifications 5.3 Weigh, document and place each seed species in an appropriate container in line with request requirements and workplace procedures 5.4 Mix multiple seed lots thoroughly, as required in line with request specifications 5.5 Accurately and clearly label seed and seed mixtures according to workplace procedures 5.6 Organise and undertake despatch of seed in line with request specifications and workplace procedures 5.7 Record seed processing results onto inventory system according to workplace procedures.

Foundation Skills

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.

Skill	Description
Reading	<ul style="list-style-type: none"> Read and follow information on equipment and in workplace procedure manuals on safety and environmental requirements when processing seed Interpret instructions combining of written and pictorial information on equipment or in operational manuals
Writing	<ul style="list-style-type: none"> Complete seed records and labels accurately and legibly using correct technical and enterprise specific vocabulary
Numeracy	<ul style="list-style-type: none"> Calculate seed weight and quantity using scales Identify and calculate percentages in specifications for seed mix Estimate impact of time on storage of seed Estimate time to complete work tasks when processing seed Undertake numerical calculations on seed processing equipment
Oral communication	<ul style="list-style-type: none"> Ask open and closed questions and use active listening techniques to clarify contents of work orders

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPFGM3XXX Extract, clean, store and despatch tree seeds	FWPFGM2213 Process seed	Redesigned unit that includes content from FWPFGM2213 Process seed, FWPFGM3201 Manage seed collection and FWPFGM3202 Extract seed	Not equivalent
FWPFGM3XXX Extract, clean,	FWPFGM3201 Manage seed collection	Redesigned unit that includes content from FWPFGM2213 Process	Not equivalent

FWPFGM3XXX Extract, clean, store and despatch tree seeds

store and despatch tree seeds		seed, FWPFGM3201 Manage seed collection and FWPFGM3202 Extract seed	
FWPFGM3XXX Extract, clean, store and despatch tree seeds	FWPFGM3202 Extract seed	Redesigned unit that includes content from FWPFGM2213 Process seed, FWPFGM3201 Manage seed collection and FWPFGM3202 Extract seed	Not equivalent
Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47		

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TITLE	Assessment requirements for FWPFGM3XXX Extract, clean, store and despatch tree seeds
Performance Evidence	
<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"> • extracted tree seed using appropriate items of equipment selected from: <ul style="list-style-type: none"> • kilns operated by gas, solar energy, oil or electricity • sieves of various sizes • air-drying racks and trays • conveyor belt • computer controlled extraction systems • treated tree seed using appropriate treatment • tested, packaged and stored seed species using one of the following methods: <ul style="list-style-type: none"> • vacuum sealing • use of inert atmospheres, including nitrogen and carbon dioxide • control of packing environment, including temperature, light and moisture • operated and maintained seed processing equipment including electric and manual scales, packaging material, seed cleaning machine, seed lot mixing device, lifting equipment • separated seeds, using one of the following methods: <ul style="list-style-type: none"> • hand selection • wind separation and winnowing • sieving • vibrating • flotation • drying • crumbling of husks • despatched seed in line with seed request specifications, • recorded seed processing information and results and maintain workplace information. 	
Knowledge Evidence	
<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"> • tree seed species and structure • tree seed source classes • methods to treat seed • test, package and store tree seed species using: <ul style="list-style-type: none"> • vacuum sealing • use of inert atmospheres, including nitrogen and carbon dioxide • control of packing environment, including temperature, light and moisture • operate and maintain seed processing equipment including electric and manual scales, packaging material, seed cleaning machine, seed lot mixing device, lifting equipment • seed separation methods : <ul style="list-style-type: none"> • hand selection • wind separation and winnowing • sieving • vibrating • flotation • drying • crumbling of husks • computer controlled extraction systems • seed despatch process: <ul style="list-style-type: none"> • seed species • seed batching and mixing • pure graded seed 	

Knowledge Evidence

- sowing rate
- dispatch container
- method of dispatch
- sowing equipment to be used
- record seed processing information and results and maintain workplace information
- types of seed processing tools and equipment, including electric and manual scales, packaging material, seed cleaning machine, seed lot mixing device, lifting equipment
- impact and application procedures of seed treatments including fungicides and cleaning
- hazards associated with the storage, treatment and despatch of seed
- seed species and treating, packaging and storage processes
- seed treatments and storage requirements for different seed species
- types of diseases and pests likely to infect the species
- problem identification and resolution strategies, and common fault finding techniques when processing seed
- appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks when processing seed
- workplace procedures for recording and reporting workplace seed information including:
 - species
 - time and date of harvest
 - time and date of receipt into the store
 - place or origin of seed
 - container identifier
- packaging including:
 - vacuum sealing
 - use of inert atmospheres, including nitrogen and carbon dioxide
 - control of packing environment, including temperature, light and moisture
- request specifications including:
 - seed species
 - percentage of seed mix
 - pure graded seed
 - rate of sown
 - dispatch container
 - method of dispatch
 - sowing equipment to be used
- appropriate container criteria:
 - length of time seed will be stored
 - method to be used to transport seed
 - equipment to be used for sowing seed
 - quantity of seed
 - size of individual seeds.

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 forest or wood products work environment or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - workplace location or simulated workplace, required to extract, treat, store and despatch tree seed.
 - materials and equipment relevant to tree seed extraction and processing work
- specifications:
 - access to workplace health, safety and environmental policies and procedures applicable to tree seed extraction and processing work.

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

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47
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