



Australian Government

FWPNSY3005 Maintain seed orchard

Release: 1

FWPNSY3005 Maintain seed orchard

Modification History

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

Application

This unit of competency describes the skills and knowledge required to apply silvicultural techniques to maintain a seed orchard.

The unit applies to individuals who are involved in tree nursery operations.

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.

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

Pre-requisite Unit

Nil

Unit Sector

Forest Nursery Production (NSY)

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. Prepare for seed orchard maintenance activities	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, including use of personal protective equipment and safe use of chemicals, for the task according to workplace procedures 1.3 Identify, assess and take actions to mitigate risks and hazards

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	associated with seed orchard maintenance activities 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 for seed orchard maintenance activities, and check for serviceability according to workplace procedures 1.7 Read and interpret seed orchard plan to confirm species, location and other details of trees in area of orchard where maintenance activities are to be conducted
2. Implement sward maintenance activities	2.1 Mow sward according to workplace procedures and safety requirements 2.2 Apply weed control measures according to workplace procedures and safety requirements 2.3 Fertilise sward areas according to workplace procedures and safety requirements 2.4 Apply sward maintenance practices that maintain pollination and pollinating insects 2.5 Report outcomes of sward maintenance activities to appropriate person
3. Implement seed orchard maintenance and genetic improvement activities	3.1 Implement fungi, disease and pest control measures according to workplace procedures and safety requirements 3.2 Apply watering and fertilising techniques to provide optimal growth conditions for trees 3.3 Apply roguing techniques to remove undesired families or ramets 3.4 Apply thinning and pruning practices to produce trees with an open crown with large flower production and facilitate seed harvest 3.5 Apply techniques to promote flowering if flower production fails or is unsatisfactory 3.6 Respond to frost 3.7 Apply cutting and grafting techniques 3.8 Reuse, recycle or dispose of waste according to environmental and workplace procedures 3.9 Report outcomes of seed orchard maintenance and genetic

Elements	Performance Criteria
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	improvement activities to appropriate person

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	Extract information from industry guides and standard references on seed orchard maintenance
Writing	Complete workplace forms
Oral communication	Ask open and closed questions and use active listening techniques to clarify contents of work orders
Numeracy	Apply basic arithmetic functions to calculate quantities and mixing ratios for chemicals

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPNSY3005 Maintain seed orchard	Not applicable	The unit has been created to address a skill or task required by industry that is not covered by an existing unit	Newly created

Links

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

Assessment Requirements for FWPNSY3005 Maintain seed orchard

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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 applied silvicultural techniques to maintain one seed orchard.

In undertaking this activity, the individual has:

- applied each of the following sward maintenance activities as required:
 - mowing
 - fertiliser application
 - weed control
 - promotion of pollinators
- applied each of the following seed orchard maintenance and genetic improvement activities as required:
 - fungi and pest control
 - watering and fertilising
 - roguing
 - thinning and pruning
 - flower induction
 - frost mitigation
 - cutting and grafting
- complied with workplace safety and environmental requirements, including use of personal protective equipment (PPE) and safe use of chemicals \
- recorded outcomes of all sward maintenance and seed orchard maintenance according to workplace procedures.

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:

- seed orchards:
 - types of seed orchards – clonal and seedling seed orchards
 - size and longevity of seed orchards
 - factors influencing location of seed orchards
 - establishment of seed orchards
 - spacing of trees in seed orchards
 - principles of seed orchard design
 - seed orchard plan
 - pollination in seed orchards
- PPE, tools and equipment used in seed orchard maintenance
- safe use of chemicals
- risk and hazards associated with seed orchard maintenance
- seed orchard maintenance and genetic improvement activities:
 - fungi and pest control measures
 - watering and fertilising
 - roguing
 - thinning and pruning
 - flower induction
 - frost mitigation
 - cutting and grafting
- sward maintenance activities:
 - mowing
 - fertiliser
 - weed control
 - promoting pollinators.

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 work environment or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - seed orchard
 - PPE, tools and equipment used in seed orchard maintenance
 - seed orchard plan
- specifications:
 - workplace health, safety and environmental policies and procedures applicable to seed orchard maintenance.

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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