



Australian Government

FWPNSY3008 Operate automated seed sowing line for containerised forest seedling production

Release: 1

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Modification History

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

Application

This unit of competency describes the skills and knowledge required to operate a seed sowing line as part of containerised forest seedling production.

The unit applies to individuals who operate seed sowing lines in commercial tree production nurseries.

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 work	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 machine guards, for the task 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>
	1.3 Identify, assess and take actions to mitigate risks and hazards associated with working with tree seed sowing line 1.4 Consult with team members to ensure that seed sowing line operations are coordinated effectively 1.5 Select correct seed species, quantity, size and grade, media and type and number of trays/containers according to job requirements 1.6 Apply seed treatment according to workplace and client requirements 1.7 Confirm production capacity and full range of functions of seed sowing lines
2. Set up tree seed sowing line	2.1 Check existence and serviceability of safety equipment, including emergency stops, gauges, guards and controls 2.2 Identify service points on seed sowing line and grease nipples on bearings prior to operation according to manufacturer instructions 2.3 Select seed sowing line program from control panel and make adjustments according to job requirements and manufacturer instructions 2.4 Load seed, media and containers according to manufacturer instructions and production requirements 2.5 Conduct trial runs to check seed sowing line operation, accuracy, alignment and that finished product meets quality requirements 2.6 Make necessary adjustments to seed sowing line settings based on outcomes of trial runs
3. Operate tree seed sowing equipment	3.1 Complete seed sowing line start-up procedure according to manufacturer instructions 3.2 Operate seed sowing line according to designed capacity, purpose and manufacturer recommendations 3.3 Monitor seed sowing line operation to ensure product quality and output 3.4 Minimise waste according to workplace and environmental protection procedures 3.5 Identify problems with the required work and/or the operation of the seed sowing line, and rectify or report to appropriate persons 3.6 Shut seed sowing line down according to workplace procedures 3.7 Record production outcomes and equipment faults or malfunctions

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	and corrective actions taken according to workplace procedures
4. Maintain seed sowing equipment	4.1 Perform routine maintenance according to purpose and manufacturer recommendations 4.2 Tag and report faulty and/or defective equipment 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	Interpret complex written, technical information in operating manuals to confirm equipment operations and perform troubleshooting
Writing	Complete routine workplace records related to equipment faults and product quality
Oral communication	Use active listening and questioning techniques to convey and clarify information
Numeracy	Perform routine calculations related to time, dimensions, production capacity, volume and number

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPNSY3008 Operate automated seed sowing line for containerised forest seedling production	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 FWPNSY3008 Operate automated seed sowing line for containerised forest seedling production

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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 operated and maintained an automated seed sowing line for containerised forest seedling production for one batch in one production run.

In undertaking this activity, the individual has:

- determined job requirements
- confirmed safety and environmental requirements, including use of personal protective equipment (PPE) and emergency stops, gauges, guards and controls
- selected and loaded correct species, quantity, size and grade of tree seed, media and type and number of trays/containers
- confirmed production capacity and full range of functions of seed sowing line
- selected seed sowing line program and conducted trial runs to check seed sowing line operation and quality of finished product
- operated and monitored tree seed sowing equipment including recording production outcomes and equipment faults or malfunctions
- taken corrective actions in response to machine faults and performed routine operator maintenance on tree seed sowing equipment.

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:

- types, functions, components, accessories and capacity of seeding systems used in containerised forest seedling production
- sources of information on seed sowing line operation and maintenance
- reasons for using seed sowing line for containerised forest seedling production:
 - sowing speed
 - controlling accuracy

- reducing mechanical injury of seeds
- reducing the occurrence of skips, missed seed placement and multiple sown seeds
- types and application of containers/trays
- types and purpose of seed treatments
- types and characteristics of media
- methods for:
 - setting up seed sowing line
 - selecting programs for seed sowing line
 - operating seed sowing line
 - quality assurance
 - troubleshooting seed sowing line
 - maintaining seed sowing line
 - reporting machinery faults and material defects
- basic components and functions of mechatronic systems:
 - sensors
 - actuators
 - controllers
 - mechanical components
- environmental sustainability issues as they relate to the work task
- work health and safety requirements specific to the work task.

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:
 - a seed sowing line for forestry nursery production
 - commercial quantities of seed, containers and media
 - PPE for operation of seed sewing line
- relationships:
 - work team for seed sowing line
- specifications:
 - workplace procedures for setting up, operating and maintaining seed sowing line
 - workplace health, safety and environmental policies and procedures applicable to forestry nursery production.

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

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