



Australian Government

FWPNSY3007 Operate automated topping system as part of tree production nursery operations

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 an automated topping system as part of tree production nursery operations.

The unit applies to individuals who operate automated topping systems as part of tree production 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 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 automated topping system 1.4 Consult with team members to ensure that automated topping system operations are coordinated effectively 1.5 Select seedlings to be trimmed according to job requirements 1.6 Confirm production capacity and full range of functions of automated topping system
2. Set up topping system	2.1 Check existence and serviceability of safety equipment, including emergency stops, gauges, guards and controls 2.2 Select topping system program and make adjustments according to job requirements and manufacturer instructions 2.3 Load and/or position seedlings according to manufacturer instructions and production requirements 2.4 Conduct trial runs to check topping operation, accuracy, alignment and that finished product meets quality requirements 2.5 Make necessary adjustments to topping system settings based on outcomes of trial runs
3. Operate topping system	3.1 Complete automated topping system start-up procedure according to manufacturer instructions 3.2 Operate automated topping system according to designed capacity, purpose and manufacturer recommendations 3.3 Monitor topping system operation to ensure product quality and output 3.4 Minimise waste according to workplace and environmental protection procedures 3.5 Recycle, reuse or dispose of cuttings according to workplace procedures 3.6 Identify problems with the required work and/or the operation of the automated topping system, and rectify or report to appropriate persons 3.7 Shut topping system down according to workplace procedures 3.8 Record production outcomes and equipment faults or malfunctions and corrective actions taken according to workplace procedures
4. Maintain topping	4.1 Perform routine maintenance according to purpose and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
equipment	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
FWPNSY3007 Operate automated topping system as part of tree production nursery operations	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 FWPNSY3007 Operate automated topping system as part of tree production nursery operations

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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 topping system as part of tree production nursery operations 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 seedlings to be trimmed according to job requirements
- confirmed production capacity and full range of functions of automated topping system
- selected topping system program and loaded and/or positioned seedlings
- conducted trial runs to check topping operation, accuracy, alignment and that finished product met quality requirements
- operated and monitored topping system
- recorded production outcomes and equipment faults or malfunctions and corrective actions taken
- performed routine operator maintenance on topping machine system.

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 automated topping systems used in tree production nursery operations
- types of blades:
 - reciprocating
 - rotating
- sources of information on automated topping system operation and maintenance

- reasons for using automated topping systems in tree production nursery operations:
 - speed
 - controlling accuracy
 - consistency of product dimensions
 - reducing mechanical injury
- methods for:
 - setting up automated topping system
 - selecting programs for automated topping system
 - operating automated topping system
 - quality assurance
 - troubleshooting automated topping system
 - maintaining automated topping system
 - maintaining and/or replacing blades
 - reporting machinery faults and material defect
- basic components and functions of mechatronic systems:
 - sensors
 - actuators
 - controllers
 - mechanical components
- environmental sustainability issues as they relate to the work task
- workplace 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 environment or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - an automated topping system for forestry nursery production
 - commercial quantities of seedlings to be topped
 - PPE suitable for operation of automated topping system
- relationships:
 - work team for seed sowing line
- specifications:
 - workplace procedures for setting up, operating and maintaining automated topping systems
 - 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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