



Australian Government

FWPCOT3255 Apply silvicultural principles

Release: 2

FWPCOT3255 Apply silvicultural principles

Modification History

Release	Comments
Release 2	This version released with FWP Forest and Wood Products Training Package Version 3.0.
Release 1	This version released with FWP Forest and Wood Products Training Package Version 2.0.

Application

This unit of competency describes the outcomes required to access, interpret and apply sustainable silvicultural principles to forests. It applies to those who identify target species, and who select and maintain merchantable trees for forest operations.

The unit applies to Forestry technician, Nursery technician, Supervisor (Forestry operations), Tree planter, Silviculturist, Arboriculture technician

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

Pre-requisite Unit

Nil

Unit Sector

Forest Growing and Management

Harvesting and Haulage

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. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for silvicultural work	1.1 Identify and review information on regulatory requirements for sustainable forest operations for various forest types. 1.2 Identify and interpret key principles and requirements that inform

ELEMENTS	PERFORMANCE CRITERIA
	sustainable silvicultural methods and techniques. 1.3 Identify target species in line with approved forest operational plan and organisational procedures. 1.4 Review work order and identify and clarify sustainable forest requirements.
2. Assess forest condition	2.1 Select and use appropriate techniques and tools to measure tree and stand height. 2.2 Calculate basal area and assess tree dominance and crown vigour using an approved industry process. 2.3 Determine and record standing tree defects. 2.4 Identify and mark merchantable trees in line with organisational procedures.
3. Implement silvicultural practices	3.1 Calculate and apply tree retention and stocking criteria according to operational plan. 3.2 Select appropriate silvicultural methods and techniques to meet environmental and production requirements. 3.3 Identify situations requiring specialist advice and seek assistance.
4. Monitor work practices	4.1 Monitor and maintain sustainable forest practices. 4.2 Monitor and adjust work practices to meet changing conditions. 4.3 Identify and report non-compliant work practices to appropriate personnel. 4.4 Identify improved work practices and recommend improvements to silvicultural operations.
5. Maintain records	5.1 Revise and update forest operational plan and organisational procedures as required. 5.2 Record and report silvicultural activities to appropriate personnel.

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	determine forest growth in terms of number of trees per hectare, height, girth, basal area.
Oral communication skills	work effectively with others.

to:	
Reading skills to:	• interpret regulatory requirements and workplace documentation.
Planning and organising skills to:	• identify work requirements in line with site conditions • analyse data and requirements to plan effective operations.

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPCOT3255 Apply silvicultural principles Release 2	FPICOT3255 Apply silvicultural principles Release 1	Minor typographical errors corrected	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT3255 Apply silvicultural principles

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Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- application of appropriate industry-accepted silvicultural principles including:
 - slash or harvesting residue burning
 - scarification
 - enhancement planting or supplementary planting
 - fertilisation
 - thinning
 - pruning
 - waste thinning and non-commercial thinning
 - commercial thinning
 - harvesting
 - gapping
- follow organisational policies and procedures relevant to implementing and monitoring sustainable silvicultural principles
- monitor and maintain sustainable silvicultural activities
- identify and report non-compliant work practices
- complete relevant workplace reports.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- principles, policies, procedures and requirements relevant to silviculture operation including the following:
 - environment protection and biodiversity conservation
 - silviculture codes and guidelines
 - ecological sustainability
 - environmental planning and assessment
 - threatened species conservation
 - critical habitat register
 - native vegetation
 - federal, state or territory forestry legislation and local government regulations
 - native forest legislation
 - specific site environmental management plans
 - relevant codes of practice, including Safe Work Australia code of practice 'Managing Risks in Forest Operations'
 - water catchment management
 - surface and ground water conservation requirements
 - relevant Australian and industry standards
 - hazard reduction policy and procedures
 - reforestation codes
 - fisheries and fish passage
 - National Parks and Wildlife legislation
 - good neighbour policies
 - duty of care
 - heritage and traditional landowner requirements
- environmental protection requirements and minimal impact strategies to support the implementation of silviculture practices
- growth habits of specific species under soil and environmental conditions
- regeneration requirements of plant species being managed
- soil conservation and erosion mitigation techniques and their advantages and disadvantages for specific sites and habitats
- the conditions that can alter or change and therefore require different silvicultural practices to protect the environment, including:
 - recently declared or potentially rare and endangered species identified
 - unexpected flora or fauna encountered
 - new or potential habitat
 - ecology or ecosystem changes
 - undergrowth and ground cover
 - canopy
 - environmental features
 - operational conditions
 - ground conditions

- weather conditions
- wind
- dust
- smoke
- fire
- cultural sensitivity
- forest type
- land tenure
- quality of roads and tracks
- effective communication procedures and protocols
- procedures for recording and reporting workplace activity.

Assessment Conditions

The following resources must be made available:

- forest operations site
- workplace requirements and site standards for applying silvicultural principles
- resources outlining the principles, policies, procedures and requirements for applying silvicultural principles
- relevant personnel for the purposes of communicating information

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

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