



Australian Government

Department of Education, Employment and Workplace Relations

FPIFGM4206B Conduct a wood volume and yield assessment

Release: 1

FPIFGM4206B Conduct a wood volume and yield assessment

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to plan, implement and review a wood volume and yield assessment within a forest area. The unit includes stand assessment; assessment of timber volume by size classes, timber quality, damage, and form; and growth monitoring

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPIFGM4206A Conduct a wood volume and yield assessment

Application of the Unit

Application of the unit

The unit involves conducting a wood volume and yield assessment in a forest environment setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan assessment	1.1. Applicable occupational health and safety (OHS), environmental, legislative and organisational requirements relevant to conducting a wood volume and yield assessment are identified and followed 1.2. Frequency of assessment for particular forest areas and size of sample areas are calculated from inventory programs, budgets and organisational guidelines 1.3. Wood volume and yield are researched and recorded for the location to be assessed 1.4. Methods of wood volume and yield measurement are selected in line with the forest management plan 1.5. Site environmental protection measures are monitored in line with relevant legislation and regulations 1.6. Communication with others is established and maintained in line with OHS requirements
2. Implement wood volume and yield assessment	2.1. Method of assessment is selected in line with the forest type, and local, environmental and organisational guidelines 2.2. People, materials and equipment for the assessment are coordinated and scheduled in line with organisational guidelines 2.3. Schedule for the site is organised in conjunction with other relevant forest operations personnel 2.4. Permits or licences required for the assessment are obtained 2.5. Personnel are directed to undertake the assessment and collect the data on wood volume and yield 2.6. Data retrieved from the assessment is translated and reported
3. Monitor and review assessment	3.1. Environmental protection measures are checked to ensure compliance with relevant legislation and regulations 3.2. Operational staff and contractors are regularly communicated with during the assessment phase to ensure smooth operation and progress 3.3. Operational activities are monitored and reviewed for potential improvements 3.4. Assessment method is reviewed and diagnosed for potential improvements

ELEMENT**PERFORMANCE CRITERIA**

3.5. Assessment results are ***recorded and reported*** to the appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Required skills

- Technical skills sufficient to coordinate and schedule resources, materials and equipment appropriate for assessment requirements; organise and obtain required permits or licences; assess wood volume and yield assessment requirements
- Communication skills sufficient to use appropriate consultative, communication and interpersonal techniques with colleagues and others
- Literacy skills sufficient to translate, record and report workplace information, such as assessment data and results, in appropriate style and format; present written and oral information to a wide range of individuals and groups; maintain documentation
- Numeracy skills sufficient to implement program planning and budgeting
- Problem solving skills sufficient to demonstrate effective time and project management

Required knowledge

- Applicable commonwealth, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for conducting a wood volume and yield assessment
- Environmental protection requirements, including the safe disposal of waste material and the minimisation of environmental impacts
- Organisational and site standards, requirements, policies and procedures for conducting a wood volume and yield assessment
- Environmental risks and hazards
- Using material effectively and efficiently
- Range of wood volumes and yields
- Assessment techniques for wood volume and yield
- Measurement and data collection methods for wood volume and yield
- Established communication channels and protocols
- Problem identification and resolution strategies, and common fault finding techniques
- Types of tools and equipment, and procedures for their safe use and maintenance
- Appropriate mathematical procedures for estimating and measuring, including

REQUIRED SKILLS AND KNOWLEDGE

- calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can effectively and efficiently plan, implement and review a wood volume and yield assessment in line with organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to, and satisfy, all of the requirements of the elements of this unit and include demonstration of:

- following applicable commonwealth, state or territory legislative and regulatory requirements and codes of practice relevant to conducting a wood volume and yield assessment
- following organisational policies and procedures relevant to conducting a wood volume and yield assessment
- planning, conducting and reviewing a wood volume and yield assessment in line with regulations and organisational requirements
- coordinating personnel to follow planning, communications and scheduling for a wood volume and yield assessment

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

EVIDENCE GUIDE

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge
- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

RANGE STATEMENT

OHS requirements:

are to be in line with applicable commonwealth, state or territory legislation and regulations, and organisational safety policies and procedures, and may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices, including required actions relating to forest fire
- manual handling including shifting, lifting and carrying

Environmental requirements may include:

- legislation
- organisational policies and procedures
- workplace practices

Legislative requirements:

are to be in line with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement processes

RANGE STATEMENT

and standards

- OHS, emergency and evacuation procedures
- ethical standards
- recording and reporting requirements
- equipment use, maintenance and storage requirements
- environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)

Assessment is to include:

analysing:

- timber volume by size classes
- timber quality
- timber damage
- form and rates of growth

Wood volume and yield may include:

- quantity (gross volume) of timber per square kilometre
- estimated yield (net volume) of useable timber per square kilometre

Measurement is to include:

- how many trees of each type and size exist per designated area based on size of area

Environmental protection measures may include:

- ground growth
- canopy
- general forest lean
- wind speed and direction
- fallen trees
- density of trees
- ground slope
- soil and water protection
- ground hazards and obstacles

Communication may include:

- verbal and non-verbal language
- constructive feedback
- active listening
- questioning to clarify and confirm understanding
- use of positive, confident and cooperative language
- use of language and concepts appropriate to individual social and cultural differences
- control of tone of voice
- division of areas into a roster for undertaking

Schedule is to include:

RANGE STATEMENT

assessment

Translated

is the process of converting measurement details and data of wood volume and yield into useable information

Diagnosis is to include:

- analysis of the assessment process and operational procedures to explore improvement potential

Records and reports may include:

producing detailed records and reports outlining the planning of wood volume and yield assessment, including:

- difficulties
- costs
- data analysis
- efficiency and effectiveness
- results
- recommendations for future work

and may be:

- manual
- a computer-based system
- other appropriate organisational communication system

Unit Sector(s)

Not Applicable

Competency field

Competency field

Forest Growing and Management