



Australian Government

Department of Education, Employment and Workplace Relations

FPIFGM2215B Measure trees

Release: 1

FPIFGM2215B Measure trees

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to measure trees and record tree measurement data. The unit includes identification of tree abnormalities

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 FPIFGM2215A Measure trees

Application of the Unit

Application of the unit

The unit involves measuring trees in a forest environment

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. Identify tree measuring requirements	1.1. Applicable occupational health and safety (OHS), environmental, legislative and organisational requirements relevant to measuring trees are identified and followed 1.2. Work order is reviewed and checked as required with appropriate personnel 1.3. Tools are selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer recommendations 1.4. Measurements are obtained and checked 1.5. Communication with others is established and maintained in line with OHS requirements
2. Measure trees	2.1. Work is undertaken using established safe operating practices in line with site procedures and environmental requirements 2.2. Suitable personal protective equipment and clothing are selected, used and maintained 2.3. Site environmental concerns are identified and followed in line with relevant commonwealth, state or territory, and local legislation and regulations 2.4. Forest area to be worked within is identified from work order and located on the ground 2.5. Tree measurements are accurately taken and recorded in the appropriate style and format in line with organisational and environmental requirements 2.6. Tree abnormalities are identified, assessed and recorded in line with workplace procedures

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 select, use and maintain relevant tools, machinery and equipment; identify tree form and abnormalities; locate forest or plot area in the field from a map or plan
- Communication skills sufficient to use appropriate communication and

REQUIRED SKILLS AND KNOWLEDGE

interpersonal techniques and methods with colleagues and others

- Literacy skills sufficient to locate, record and report information
- Numeracy skills sufficient to use appropriate mathematical techniques to calculate stand height and measure dimension and volume
- Problem solving skills sufficient to review and identify work requirements; identify problems and equipment faults; demonstrate appropriate response procedures

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 measuring trees
- Environmental protection requirements, including the safe disposal of waste material, the minimisation of environmental impact, and returning the environment to its original or near to original condition on completion of activity
- Organisational and site standards, requirements, policies and procedures for measuring trees
- Environmental risks and hazards
- Tree measuring techniques, including relevant mathematical calculations and basic trigonometry
- Species and characteristics of vegetation to be measured
- Types of measuring tools, and procedures for their safe use and maintenance
- 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
- 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 interpret written and verbal instructions to locate specified forest area to accurately carry out tree measurements within environmental and 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 measuring trees
- following organisational policies and procedures relevant to measuring trees
- using and maintaining appropriate measuring tools
- locating forest or plot area from map or plan and carrying out a range of tree measuring procedures without causing damage to tree, environment, equipment or personnel

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

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and

EVIDENCE GUIDE

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.

OHS requirements: are to be in line with applicable commonwealth, state or territory legislation and regulations, and

RANGE STATEMENT

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
- legislation
- organisational policies and procedures
- workplace practices

Environmental requirements
may include:

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 and standards
- OHS, emergency and evacuation procedures

RANGE STATEMENT

- ethical standards
 - recording and reporting requirements
 - equipment use, maintenance and storage requirements
 - environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)
- Trees** may include:
- plantation trees of a variety of species and ages
 - native forest trees of a variety of species and ages
- Work order** may include:
- instructions for the environmental monitoring of work and procedures
 - environmental care requirements relevant to the work
- Appropriate personnel** may include:
- supervisors
 - clients
 - colleagues
 - line management
- Tools** may include:
- diameter tapes
 - length tapes
 - optical wedges
 - clinometers
- Measurements** include:
- tolerances, allowances, calibration requirements and special procedures
 - tree diameter and girth (over or under bark at breast height or ground level)
 - tree height
 - log length
- 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
- Tree measurements** include:
- calculating stand height in line with sampling technique

RANGE STATEMENT

- Tree abnormalities** may include:
- measuring log volume
 - classifying stem form or crown class
 - butt swell
 - double leaders
 - heavy branching
 - ramicorns

Unit Sector(s)

Not Applicable

Competency field

Competency field Forest Growing and Management