



Australian Government

Department of Education, Employment and Workplace Relations

FPIFGM4205B Monitor regeneration rates

Release: 1

FPIFGM4205B Monitor regeneration rates

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to monitor and coordinate the assessment of new plant stocks within a forestry area. The unit includes the assessment of germination, survival, regeneration and basal area surveys

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 FPIFGM4205A Monitor regeneration rates

Application of the Unit

Application of the unit

The unit involves monitoring regeneration rates 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. Prepare for monitoring	1.1. Applicable occupational health and safety (OHS), environmental, legislative and organisational requirements relevant to monitoring regeneration rates 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. Regeneration types are researched and recorded for the location to be assessed 1.4. Methods of regeneration measurement are selected in line with the forest management plan 1.5. Site environmental protection measures are adhered to in line with relevant legislation and regulations 1.6. Communication with others is established and maintained in line with OHS requirements
2. Implement assessment of regeneration rates	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 regeneration rates 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 relevant tools, equipment and resources; monitor regeneration rates
- Communication skills sufficient to use appropriate communication and interpersonal techniques with colleagues and others
- Literacy skills sufficient to organise and obtain required permits or licences; translate, record and report workplace information, such as collected 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 measure, estimate and calculate time required to complete a task
- Problem solving skills sufficient to identify problems; demonstrate appropriate response procedures; 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 monitoring regeneration rates
- Environmental protection requirements, including the safe disposal of waste material, the minimisation of environmental impact and carbon emissions, 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 monitoring regeneration rates
- Environmental risks and hazards
- Using material effectively and efficiently
- Types and rates of regeneration
- Assessment techniques for regeneration rates
- Measurement and data collection methods
- Established communication channels and protocols
- Problem identification and resolution strategies, and common fault finding techniques

REQUIRED SKILLS AND KNOWLEDGE

- Types of tools and equipment, and procedures for their safe use and maintenance
- Appropriate mathematical procedures for estimating and measuring, including 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 safely and efficiently monitor regeneration rates 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 monitoring regeneration rates
- following organisational policies and procedures relevant to monitoring regeneration rates
- monitoring regeneration rates in line with regulations and organisational requirements
- coordinating personnel to follow planning, communications and scheduling for monitoring regeneration rates

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

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 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)
Assessment is to include:	• monitoring germination and survival rates • observing the effects of browsing, the distribution of new growth in square metres and regeneration rates • calculating basal areas
Regeneration types may include:	• seeding • seedlings • coppice • standard sprouts
Measurement is to include:	• quantity of each type in existence 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
Schedule is to include:	• division of areas into a roster for undertaking monitoring
Translated	is the process of converting measurement details and data of regeneration rates into useable

RANGE STATEMENT

	information
Operational activities may include:	• monitoring of regeneration rates
Diagnosis is to include:	• analysis of the monitoring process and operational procedures to explore improvement potential
Records and reports may include:	detailed records and reports outlining the monitoring of regeneration rates, including: • difficulties • costs • data analysis • recommendations for future work • results 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