



Australian Government

FDFWGG2005A Maintain callusing envrionment

Release: 2

FDFWGG2005A Maintain callusing environment

Modification History

This unit supersedes and is equivalent to FDFWGGMCEB Maintain callusing environment.
April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for wine grape nurseries. It covers the skills and knowledge required to maintain a callusing environment under supervision.
------------------------	--

Application of the Unit

Application of the unit	This unit applies to wine grape nursery staff who work with vine cuttings that are to be callused in preparation for planting. The unit covers the maintenance of the callusing environment, preparation of callusing boxes, pre- and post-callusing treatments and monitoring of callusing process. All work is done to specifications and knowledge of occupational health and safety (OHS), environmental and hygiene requirements is required.
--------------------------------	--

Licensing/Regulatory Information

Not applicable.

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 callusing environment	1.1 Work instructions on callusing are confirmed and understood 1.2 Materials required for callusing are confirmed as available and ready to meet requirements 1.3 Equipment is selected and used according to workplace procedures 1.4 Work area, equipment and boxes are cleaned and sterilised to minimise risk of contamination 1.5 Potential and existing hazards are identified, rectified and/or reported according to workplace procedures 1.6 Pre-mixed callusing media is prepared as instructed 1.7 Callusing environment is prepared according to workplace procedures 1.8 Callusing boxes are prepared according to workplace procedures
2. Prepare cuttings for callusing	2.1 Cuttings are prepared for callusing according to instructions 2.2 Pre-callusing treatments are applied as instructed 2.3 Cuttings are counted, bundled and labelled according to instructions 2.4 Cuttings are placed into boxes according to instructions
3. Maintain cuttings in callusing room	3.1 Cuttings are placed into callusing environment according to workplace procedures 3.2 Callusing environment is maintained within specifications 3.3 Cuttings are monitored for potential health problems according to workplace procedures 3.4 Post-callusing treatments are applied to maintain plant health according to workplace procedures
4. Carry out post-callusing operations	4.1 Callused cuttings are removed from callusing room as instructed 4.2 Waste is collected and disposed of according to workplace procedures 4.3 Facilities are cleaned and sterilised according to workplace procedures 4.4 Work is conducted in accordance with workplace environmental guidelines
5. Record information	5.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify callusing requirements
- confirm supply of necessary materials
- liaise with other work areas
- select, fit and use appropriate personal protective clothing and/or equipment
- select, operate, maintain and store the required equipment according to instructions
- maintain work area and equipment to meet workplace housekeeping standards
- maintain work area and equipment to meet workplace hygiene standards
- use appropriate cleaning techniques
- recognise problems and anomalies and correct and/or report them as instructed
- identify, rectify and/or report environmental non-compliance
- maintain workplace records
- prepare callusing media to specified moisture levels
- prepare callusing environment. This may include:
 - turning on heaters and fans
 - setting and monitoring temperature and relative humidity
- prepare callusing boxes. This may include:
 - filling boxes with sand or vermiculite
 - lining boxes
 - storing excess media
- prepare chemical treatments to required concentration and ensure homogenous mix
- prepare cuttings for callusing. This may include:
 - taking cuttings out of storage
 - cutting just below basal bud
- apply pre-callusing treatment. This may include:
 - hydrating cuttings
 - applying fungicide treatments
 - applying root promoter treatment
- prepare labels in a clear and legible manner with waterproof ink
- place cuttings into boxes. This may include:
 - feeling into media
 - watering in
 - placing correct number of cuttings per box

- placing basal end at bottom
- dipping into hormone mixes
- arranging cuttings according to variety, clone and source
- labelling and mapping of beds
- maintain callusing environment. This may include consideration of:
 - temperature
 - relative humidity
 - moisture levels of growing medium
- monitor cuttings for potential health problems. This may include identifying:
 - uneven callusing
 - dehydration
 - presence of pests and diseases
- apply post-callusing treatments. This may include:
 - hydrating cuttings
 - applying fungicides
- remove callused cuttings. This may include:
 - loading cuttings onto trucks or trailers
 - potting or planting cuttings
- dispose of waste as instructed. This may include:
 - pasteurising callusing media
 - spreading waste material through the vineyard
 - placing waste in bins for removal by disposal company
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- OHS hazards and controls
- purpose of personal protective clothing and/or equipment
- correct operating procedures for equipment
- safe and effective handling of equipment
- cleaning requirements and procedures for work area and equipment
- environmental issues and controls
- reporting and recording requirements and procedures
- procedures and responsibilities for reporting problems and anomalies
- waste disposal requirements and procedures

- safe preparation and handling of chemicals
- purpose and benefit of pre- and post-callusing treatments
- pre-callusing treatment procedures
- post-callusing treatment procedures
- principles of nursery hygiene
- procedures for preparing pre-mixed callusing media
- factors in a controlled callusing environment that affect the vine cutting
- procedures for maintaining callusing environment
- common problems that occur during callusing and how they should be resolved (e.g. uneven callusing or evidence of dehydrated cuttings on arrival)
- quality control process in the callusing environment.

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

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

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

Evidence of ability to:

- use personal protective clothing and equipment where required
- observe hygiene and housekeeping standards including correct cleaning and sterilisation of work area, equipment and boxes
- prepare callusing media and boxes to specification
- prepare cuttings and apply pre-callusing treatment correctly
- place cuttings into callusing boxes correctly
- monitor and maintain callusing environment to specification
- monitor cuttings for correct callusing and report problems according to procedures
- apply post-callusing treatment correctly
- remove callused cuttings correctly
- record information appropriately.

Context of and specific resources for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- personal protective clothing and equipment as required
- work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements
- instructions, information, specifications and schedules as required
- equipment, services and corresponding information as required
- products and materials as required
- internal and external customers and suppliers as required

EVIDENCE GUIDE	
	• cleaning procedures, materials and equipment as required • documentation, recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

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.	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	Workplace information can include: • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDSs) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Equipment	Equipment may include:

RANGE STATEMENT	
	• thermometer • hydrothermometer • hydraulic bin • trolley or trailer • personal protective clothing and/or equipment • forklift
Materials	Materials may include: • cuttings • callusing media • rooting hormone • boxes • pallets
Contamination	Contamination may include: • pests • diseases • viruses
Waste	Waste may include: • callusing media • damaged cuttings • callusing containers
Hazards	Hazards may include: • obstacles • inhaling callusing media • operating equipment • using chemicals and disinfectants
Label information	Label information may include: • clone • variety • rootstock • date placed into callusing room • date to be removed • treatments applied • source of rootstock and scion
Problems and anomalies	Problems and anomalies may include: • evidence of crown gall • dehydration

RANGE STATEMENT	
	• fungal infection • physical damage • graft union failure • excessive galling
Records	Records will include: • treatments applied • clones • variety • source • batch numbers • numbers of vines in callus boxes • numbers of boxes packed • date of callusing

Unit Sector(s)

Unit sector	Wine operations
--------------------	-----------------