



Australian Government

Department of Education, Employment and Workplace Relations

FDFLAB3003A Perform routine troubleshooting procedures

Release 3

FDFLAB3003A Perform routine troubleshooting procedures

Modification History

This unit supersedes and is equivalent to FDFLABTSHA Perform routine troubleshooting procedures.

September 2012: clarified pre-requisite information.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This unit covers the skills and knowledge required to troubleshoot routine testing equipment, procedures or processes to identify problems and take corrective action.
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Application of the Unit

Application of the unit	This unit has application in a wine operations laboratory environment. It typically targets the worker responsible for applying laboratory principles to identify and rectify testing problems.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		
	FDFLAB2006A	Record laboratory data, and
	FDFLAB2001A	Perform basic analytical tests*, or <i>FDFLAB2011A Use basic laboratory equipment</i>
	FDFLAB2002A	Perform basic microbiological tests*, or <i>FDFLAB2012 Maintain aseptic environment</i> <i>FDFLAB2011A Use basic laboratory equipment</i>
	FDFLAB2009A	Perform packaging quality control procedures* <i>FDFLAB2011A Use basic laboratory equipment</i>

Employability Skills Information

Employability skills	This unit contains employability skills.
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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 out-of-standard test equipment and/or process performance	1.1 Equipment and/or process is inspected to confirm it is operating according to specification 1.2 Equipment and/or process outputs are inspected to confirm they are consistent with product and/or process specifications 1.3 Signs of equipment wear and potential malfunction are recognised 1.4 Parameters for out-of-standard performance are recognised and/or identified
2. Identify causes of out-of-standard performance	2.1 Out-of-standard performance is investigated using standard troubleshooting steps according to workplace procedures 2.2 Service and/or calibration records are reviewed 2.3 Procedure is reviewed to ensure correct materials, equipment and protocol were followed 2.4 Appropriate validation or performance checks are conducted as required 2.5 Equipment and/or process variables are analysed and a list of possible causes prepared 2.6 Most probable causes are identified using appropriate elimination techniques
3. Initiate corrective action	3.1 Corrective action is trialled based on outcome of investigation 3.2 Equipment and/or process is monitored to ensure outputs are within specification 3.3 Trial results are reviewed and corrective action validated
4. Record information	4.1 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, interpret and apply workplace information to identify equipment and process specifications and operating parameters
- liaise with other work areas (e.g. cellar, production line, maintenance and winemaker)
- select, fit and use personal protective clothing and/or equipment
- confirm supply of necessary product, materials and services
- recognise and identify anomalous equipment and/or process outcomes
- identify causes of out-of-standard performance
- take corrective action to rectify out-of-standard performance. This may involve adjusting, rectifying or modifying test equipment or process, which may include:
 - calibrating or standardising
 - checking reagents
 - dismantling equipment
 - replacing components
 - performing routine maintenance, cleaning or sanitising procedures
 - adjusting parameters
 - modifying procedures
 - manipulating data
- monitor results of corrective action
- verify success of corrective action
- report and/or record corrective action required
- sort, collect, treat, recycle or dispose of waste
- maintain workplace records
- maintain work area to meet housekeeping standards
- Clean and sanitise equipment according to enterprise procedures
- conduct routine preventive maintenance according to enterprise procedures
- take samples according to enterprise procedures.

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:

- purpose and principles of troubleshooting procedures
- principles and procedures relating to test equipment operation

- equipment and instrumentation components, purpose and operating parameters
- normal range of results for test procedures
- how to read, calculate and evaluate results
- relevant standards and specifications and basic legislative requirements (e.g. quality, health, safety, labelling and equipment) and their implications
- workplace policy and/or procedures with regard to:
 - reporting out-of-standard performance or non-compliance
 - calibration and service requirements of test equipment
 - troubleshooting protocol
 - problem-solving protocol
 - making changes to Standard Operating Procedures (SOPs)
- services used
- significance and method of monitoring control points within a process
- causes of variation or inaccuracies and corrective action required
- Occupational health and safety (OHS) hazards and controls
- lock-out and tag-out procedures as required
- procedures and responsibility for reporting problems
- waste handling requirements and procedures
- cleaning and sanitising requirements where relevant
- routine maintenance requirements of equipment where relevant
- sampling techniques where relevant.

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: • identify and address non-conformances or problems with laboratory equipment • identify and address non-conformances or problems with laboratory processes • identify causes and address problem cause • complete workplace documentation.
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 • cleaning procedures, materials and equipment as required • documentation and 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

EVIDENCE GUIDE

	circumstances, cases and responsibilities, and where possible, over a number of assessment activities.
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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 may include:

- SOPs
- specifications
- production schedules
- instructions
- work notes
- Material Safety Data Sheets (MSDS)
- manufacturer instructions
- verbal direction from manager, supervisor, or senior operator

Troubleshooting

Troubleshooting will involve:

- the use of technical knowledge and skills to investigate out-of-standard performance of routine test equipment, analysis results or processes

Test equipment

Test equipment should include that which is required to perform routine analysis in the laboratory, production line, cellar or plant. This may include equipment used for:

- chemical, microbiological and physical tests on product, materials production processes, or environmental management

Materials

Materials may vary and should include those listed in the

RANGE STATEMENT	
	enterprise SOPs
Workplace records	Workplace records may include: • calibration logs • non-conformance reports • corrective action reports • service records • maintenance records • trial results and reports
Services	Services may include: • power • water • gases
Information systems	Information systems may be: • print or screen based
Work hazards	Work may involve exposure to: • chemical, dangerous or hazardous substances

Unit Sector(s)

Unit sector	Wine operations
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