



Australian Government

Department of Education, Employment and Workplace Relations

FDFLAB2006A Record laboratory data

Release: 2

FDFLAB2006A Record laboratory data

Modification History

This unit supersedes and is equivalent to FDFLABRLDA Record laboratory data.
April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This unit has covers the skills and knowledge required to record and store laboratory data, to perform simple calculations, and interpret relevant information in tables, charts and graphs. Work is usually done under routine supervision
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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 conducting laboratory operations.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

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. Record and store laboratory data	<ul style="list-style-type: none">1.1 Laboratory data is coded and/or transcribed according to workplace procedures1.2 Data is recorded according to document quality assurance requirements1.3 Data is entered into laboratory information system or record sheets1.4 Errors in data are rectified using enterprise procedures1.5 Data is stored and retrieved using appropriate files and/or application software
2. Interpret laboratory data	<ul style="list-style-type: none">2.1 The appropriate source for information is identified and data retrieved2.2 Information in tables, charts and graphs is interpreted and applied as required2.3 Deviations in performance are identified and anomalies in data are reported to supervisor
3. Maintain accurate records	<ul style="list-style-type: none">3.1 Information is transcribed in an accurate and timely manner3.2 The accuracy of records is verified according to workplace procedures3.3 Workplace records are filed and stored according to workplace procedures3.4 Reference documents are filed in a logical manner, kept up to date and secured where necessary3.5 Workplace confidentiality standards are maintained

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:

- identify and access information management system to interpret and verify laboratory data
- code, record and check the documentation of data
- use a simple spreadsheet or database program to store and retrieve data
- calculate results using whole numbers, simple fractions and decimals
- calculate percentages, ratios and proportions
- verify calculations by using estimation techniques and rectify mistakes
- record results in the required format. This may include:
 - scientific notation
 - unit conversions
 - multiples and submultiples
 - significant figures
 - rounding off
- read and apply information from simple graphs, charts and tables
- identify deviations in performance. This may involve checking data against specifications, standards and previous test results
- maintain the confidentiality of data according to workplace procedures
- keep records up to date
- secure records as required
- 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:

- purpose and principles of workplace information management system, including:
 - document control
 - verification
 - confidentiality
- workplace policy and procedures with regard to:
 - coding laboratory data (e.g. tank location, batch, analysis details, vintage, variety, stage

- of production and symbols, such as + or –)
- entering laboratory data
- storing laboratory data
- retrieving laboratory data
- communicating laboratory data
- verifying laboratory data
- correcting mistakes
- mathematical symbols and diagrams
- mathematical processes
- estimation processes
- purpose of graphs, charts and tables
- common expressions of concentration, including:
 - weight per volume of solution (w/v)
 - percentage weight per volume (% (w/v))
 - parts per million (ppm)
 - milligrams per litre (mgL-1)
 - weight per weight of solution (w/w)
 - volume per volume of solution (v/v)
 - percentage volume of solution (% (v/v))
 - molarity (M)
 - normality (N)
- presentation of laboratory data in the information management system
- procedures and responsibility for reporting problems.

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	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • access and interpret laboratory data • record and store data according to work practices • identify variations or deviations in data and validate accuracy • maintain data according to workplace standards.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • 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 circumstances, cases and responsibilities, and where

EVIDENCE GUIDE

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 may include:

- laboratory data
- Standard Operating Procedures (SOPs)
- specifications
- standards
- certificates of compliance
- quality assurance records
- scientific articles and publications
- reference texts
- product information and purchase details (e.g. supplier catalogues and handbooks)
- calibration records
- maintenance and service records
- production schedules
- instructions
- work notes
- Material Safety Data Sheets (MSDS)
- manufacturer instructions

Data

Laboratory data may include:

- the results of inspections, tests, quality or safety audits, trials, product or process non-compliance, and materials compliance validation

RANGE STATEMENT	
	<p>Data may be presented in the form of:</p> <ul style="list-style-type: none">graphs, histograms, bar charts, pie charts, control charts, tables and spreadsheets <p>Data may be recorded:</p> <ul style="list-style-type: none">manually on worksheets, or through the use of computer-based systems and entered into spreadsheets or databases
Calculations	<p>Calculations may be performed:</p> <ul style="list-style-type: none">manually or with a calculator or computer software
Arithmetic processes	<p>Arithmetic processes may include:</p> <ul style="list-style-type: none">simple calculations involving addition, subtraction, multiplication, division, percentage, ratio and proportion
Record verification	<p>Verification of records may be achieved by:</p> <ul style="list-style-type: none">consulting standards, specifications, analytical tolerances, document version control, signatories and dates
Information management	<p>Information management systems may be:</p> <ul style="list-style-type: none">print or screen based

Unit Sector(s)

Unit sector	Wine operations
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