



Australian Government

AHCPHT505A Evaluate wine

Release 1

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Modification History

Release	TP Version	Comments
1	AHC10v5	Initial release. New unit based on NSW accredited unit NSWTVIT502A Manage and evaluate wine production

Unit Descriptor

This unit of competency covers evaluating a variety of wine types and styles, enabling recommendations for the improvement of wine making and viticultural practices to enhance the quality of wine produced.

Application of the Unit

This unit applies to vineyard managers who use knowledge of wine type, style and quality in order to determine the relative contributions of winemaking technique and viticulture practice to the wine.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Nil

Employability Skills Information

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. Analyse chemical components of wine	1.1 Chemical components for a particular wine style are determined and where required, testing laboratories are identified 1.2 Samples of grapes, juice and/or wine are taken according to standard sampling procedures and laboratory requirements 1.3 Simple wine analysis procedures are performed and results recorded 1.4 Results of chemical analyses are evaluated and compared with desired values to identify potential chemical problems in the winemaking process and any required additions or fining agents
2. Resolve wine making problems	2.1 Wine or juice is evaluated using standard laboratory and organoleptic procedures 2.2 The protein stability of a wine is identified using a buttes or heat technique 2.3 The need for cold stabilisation of a wine is identified 2.4 Additives and/or fining agents are used to alleviate problems or improve quality, and their effectiveness is evaluated and their use adjusted where indicated 2.5 Wine making and handling processes are carried out in a hygienic working environment 2.6 Cellar operations procedures and instructions are clearly described, recorded and utilised during the winemaking process
3. Taste and evaluate a wine	3.1 Accepted tasting procedures are used for tasting the wine 3.2 The flavour and aroma components and characteristics of the wine are identified using sensory evaluation methods 3.3 The relative contribution and interaction of wine components to the wine taste, aroma and appearance are identified using accepted wine description terminology 3.4 Characteristics of wine that make it suitable for cellaring and the ideal cellaring conditions are identified 3.5 Tasting notes are made during the tasting process according to industry standards 3.6 Records of wine evaluation are made and stored according to industry standards
4. Analyse the effect of winemaking techniques on wine quality	4.1 Evidence of the winemaking technique is identified in the wine to distinguish it from other influences on the wine 4.2 Faults in the wine attributable to the winemaking technique are identified and distinguished from bottle age

ELEMENT	PERFORMANCE CRITERIA
5. Analyse the effect of site characteristics, viticultural practices and grape varieties on wine quality	characteristics 4.3 The effect of winemaking techniques on suitability of wine for cellaring is determined 5.1 Effects of climate are identified in the wine 5.2 Effects of the physical characteristics of vineyard sites are identified in the wine 5.3 Effects of grape variety are identified and analysed 5.4 Effects of viticultural practices are identified in the wine and evaluated in terms of modifications and improvements to be made for the next season 5.5 Viticultural production plan for next season is adjusted, documented and communicated to vineyard personnel
6. Analyse current packaging methods, bottle closure methods and wine labelling laws	6.1 The range of wine packaging available and used in the Australian wine industry are identified 6.2 The range of wine bottle closure methods used in the Australian wine industry are identified and compared 6.3 Current wine labelling regulations and their impact on the wine industry are identified and interpreted

Required Skills and Knowledge

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

Required skills include:

Ability to:

- determine wine characteristics and faults using organoleptic evaluation techniques
- document plans, specifications and production work procedures and write reports for staff, managers, clients and contractors
- communicate and negotiate verbally and in writing with the client, staff, managers, suppliers, contractors and consultants
- research, evaluate and record information
- comply with legislative requirements

Required knowledge

Knowledge of:

- changes to the physical characteristics of grapes during ripening including size, hardness and colour
- changes to the chemical characteristics of grapes during ripening including acid, sugar and flavour
- factors involved in the initiation and management of primary, secondary and malolactic fermentation processes
- ideal Australian cellaring conditions
- vintage ratings in Australia
- sensory evaluation of wines with potential for cellaring
- varieties of wine grapes in Australia
- types and styles of wine produced in Australia
- 'balance' in relation to wine taste
- climatic and physical features of wine grape growing areas and wine styles produced
- main export markets
- food safety requirements
- cleaning procedures and processes, including:
 - cleaning and sanitising agents
 - cleaning systems and equipment
 - waste disposal
 - wastewater removal
- packaging, regulations and relationship to product marketing and quality

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	
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 workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following: - perform chemical analyses necessary for the winemaking process - evaluate wine - identify and recommend improvements to viticultural practices that will contribute to enhanced wine quality in the next season
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.
Method of assessment	- Assessment methods must satisfy the endorsed Assessment Guidelines of the AHC10 Training Package and can be assessed holistically with other units - Assessment methods must confirm consistency and 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, 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 - 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
Guidance information for assessment	To ensure consistency of performance, competency 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

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.

Wine types and styles
include:

- dry white table wine
- dry red table wine
- sweet white table wine
- sparkling wine
- fortified wine
- blended wines

Grape varieties

The major grape varieties used in the production of wine in Australia include:

- major red varieties:
 - Shiraz
 - Cabernet Sauvignon
 - Merlot
 - Pinot Noir
- major white varieties:
 - Chardonnay
 - Semillon
 - Riesling
 - Sauvignon Blanc
 - Sultana

The minor and newer wine varieties in Australia include:

- red varieties:
 - Cabernet Franc
 - Malbec
 - Grenache
 - Chambourcin
 - Italian varieties
- white varieties:
 - Chenin Blanc
 - Marsanne
 - Verdelho
 - Italian varieties

<i>Chemical analyses</i> include:	• pH • sugar • titratable acid (TA) • sulphur dioxide • alcohol • malic/lactic acid
<i>Organoleptic procedures</i> include:	• human sensory mechanisms; sight, smell, taste and feel • the four basic tastes; salt, sweet, sour, bitter • taste positions on tongue and in mouth; positions on tongue where tastes are experienced and positions in mouth where sensations are experienced
<i>Additives and fining agents</i>	Additives and finings include: • bentonite • PVPP • egg albumin • casein • gelatine • copper Reasons for using additives and finings include: • moderating tannins • moderating phenolic content • reducing colour • reducing protein content Trials to determine requirements include: • setting up • evaluation Addition of additives/fining agents include: • calculation of additions to bulk wine • addition procedures
<i>Hygienic working environment</i>	The elements of winery hygiene include: • hygienic working environment • key areas and equipment, including: • tanks • barrels • hoses and pipes • presses • crushers/destemmers • receival area • floors

	• drains
<i>Tasting procedures</i>	Procedures essential for correct wine evaluation include: • explanation of reasons for tasting and evaluating wine • tasting conditions including: • physical environment • tasting glasses • amount of wine • temperature of wine • tasting procedures • taste and feel thresholds for different flavour/taste and mouth/feel relationships • mouth-feel sensations: • cause • feeling • location in mouth • wine descriptions: • accepted terminology - flavour wheel • colour • nose • palate • recording of notes
Major <i>flavour and aroma components</i> include:	• flavour compounds • colour compounds • tannins • acids sugars • sugar • alcohol • water • wine components • flavour/aroma from grape • contribution to flavour/aroma/bouquet from wine making procedures: • grape composition, including changes during ripening and composition at ripening • composition changes, including change from grape juice to wine
<i>Characteristics of wine</i> include:	• wine type and style • age • chemical components • packaging

Winemaking techniques include:	• fermentation techniques • wood fermentation and maturation techniques • processing techniques including crushing, skin contact, pressing, filtration,fining, blending • ageing techniques including: • effect on style of wine • effect on composition of wine • effect on quality of wine • sparkling wine production techniques: • Methode Champenoise • transfer systems • Charmat • carbonation • fortified wine production techniques
Faults in wine include:	• common wine faults • origin of wine faults • effect of wine faults on wine • sensory description of wine faults • bottle age versus wine faults
Packaging methods and bottle closure methods	Packaging methods include: • bottle • cask • cans • sachets and a consideration of: • wine package labels - front and back • label integrity program Wine bottle closures include: • corks • screw caps and a consideration of: • effect on marketability • effect of wine quality
Wine labelling laws include:	• Australian Wine and Brandy Corporation Act 1980 and regulations (including Label Integrity Program, Protected Names legislation) • Australian Food Standards • Food packaging legislation • Trade Practices Act 1974

Unit Sector(s)

Production Horticulture