



**Australian Government**

# **AHCPHT507 Evaluate grapes for production**

**Release: 1**

# AHCPHT507 Evaluate grapes for production

## Modification History

| Release   | Comments                                                                                                                    |
|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 4.0. |

## Application

This unit of competency describes the skills and knowledge required to collect, process and evaluate grapes for production, monitor and evaluate vineyard, and analyse the effect of climate, site characteristics, grape varieties and viticultural practices on grape quality.

The unit applies to individuals who apply specialised skills and knowledge to the evaluation of grapes for production, and take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information, and analyse, design and communicate solutions to sometimes complex problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Production Horticulture (PHT)

## Elements and Performance Criteria

| Elements                                         | Performance Criteria                                                                                                                                                                                                     |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                   |
| 1. Collect samples                               | 1.1 Identify vineyard block to be sampled<br>1.2 Determine optimum grape sampling time<br>1.3 Identify and interpret standard sampling procedures<br>1.4 Utilise vegetation indices where available to identify zones of |

| <b>Elements</b>                                  | <b>Performance Criteria</b>                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                       |
|                                                  | uniformity or variation<br>1.5 Confirm sampling areas with client or winemaker<br>1.6 Observe and record out-of-specification condition or characteristics of grapes<br>1.7 Take samples of grapes according to standard sampling procedures                                                                                                 |
| 2. Process samples                               | 2.1 Prepare sample processing equipment according to standard sampling procedures<br>2.2 Extract juice using processing equipment<br>2.3 Wash processing equipment between samples<br>2.4 Wash and store processing equipment after use                                                                                                      |
| 3. Evaluate samples                              | 3.1 Evaluate juice using standard organoleptic procedures<br>3.2 Perform simple grape analysis procedures and record results<br>3.3 Evaluate results using quantitative parameters                                                                                                                                                           |
| 4. Taste and evaluate wine                       | 4.1 Use accepted tasting procedures for tasting wine<br>4.2 Identify the flavour and aroma components and characteristics of wine using organoleptic evaluation techniques<br>4.3 Identify the relative contribution and interaction of wine components to the wine taste, aroma and appearance, using accepted wine description terminology |
| 5. Monitor and evaluate vineyard                 | 5.1 Establish and document vineyard qualitative parameters<br>5.2 Monitor qualitative parameters to determine harvest time for optimum wine quality<br>5.3 Compare results to grape production plan schedule, and determine best course of action<br>5.4 Identify and communicate opportunities to optimise fruit quality prior to harvest   |
| 6. Analyse effects in grape quality              | 6.1 Identify effects of climate on grapes<br>6.2 Identify site effects on grape quality<br>6.3 Identify and analyse effects of grape variety and flavour<br>6.4 Identify and evaluate effects of vineyard management practices on grapes in terms of modifications and improvements to be made for the                                       |

| Elements                                         | Performance Criteria                                                                                   |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i> |
|                                                  | current and next season                                                                                |

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

| Skill                      | Description                                                                                                                                                                                                                                                         |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading                    | <ul style="list-style-type: none"><li>Identifies and interprets grape standard organoleptic procedures and quantitative parameters</li><li>Identifies and interprets grape production plan schedule</li><li>Interprets vegetation indices where available</li></ul> |
| Oral communication         | <ul style="list-style-type: none"><li>Initiates discussions with client or winemaker, using clear language to confirm sampling areas and communicate opportunities to optimise grape quality</li></ul>                                                              |
| Numeracy                   | <ul style="list-style-type: none"><li>Records and evaluates sample data</li><li>Interprets quantitative parameters</li></ul>                                                                                                                                        |
| Navigate the world of work | <ul style="list-style-type: none"><li>Identifies and describes own workplace requirements associated with own role and area of responsibility</li></ul>                                                                                                             |
| Interact with others       | <ul style="list-style-type: none"><li>Uses appropriate language and communication skills to disseminate information to client or winemaker</li></ul>                                                                                                                |

## Unit Mapping Information

| Code and title current version              | Code and title previous version | Comments | Equivalence status |
|---------------------------------------------|---------------------------------|----------|--------------------|
| AHCPHT507<br>Evaluate grapes for production | Not applicable                  | New unit | No equivalent unit |

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCPT507 Evaluate grapes for production

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## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has evaluated grapes for production on at least two occasions and has:

- utilised vegetation indices where available
- researched, evaluated and recorded relevant information
- collected, processed and evaluated samples using standard sampling procedures
- evaluated juice using standard organoleptic procedures
- tasted and evaluated wines using standard organoleptic evaluation techniques
- recorded grape analysis results and evaluated results using quantitative parameters, including:
  - sugar content, soluble solids concentration (SSC)
  - titratable acidity (TA)
  - concentration of hydrogen ions in solution (pH)
- established and documented vineyard qualitative parameters, including:
  - berry colour and skin splitting
  - texture
  - aroma
  - aftertaste
  - rachis
  - berry dehydration
  - seed ripeness
- identified areas of concern and opportunities to change harvest plans to optimise grape quality outcomes prior to harvest, including unsuitable or special parcels of fruit
- identified and recommended improvements to vineyard management practices that will contribute to enhanced grape quality in the next season.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles and practices for evaluating grapes for production, including:
  - changes to the chemical characteristics of grapes during ripening, including SSC, TA and pH
  - changes to the physical characteristics of grapes during ripening, including size, hardness and colour
  - climatic and physical features of wine grape growing areas and wine styles produced
  - quantitative parameters of grape testing
  - sensory evaluation and qualitative parameters of grapes and wine
- sensory evaluation of wines
- grape end-use, including:
  - dried
  - table
  - wine
- grape standard sampling procedures
- vegetation indices, including:
  - plant cell density (PCD) maps
  - normalised difference vegetation index (NDVI)
- vineyard management practices and their impact on grapes, including:
  - plant moisture status management
  - irrigation management
  - canopy management
  - pruning levels
  - nutrition regimes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - grapes
  - vineyard
  - sample processing equipment
  - grape standard sampling procedures
- relationships:
  - clients or winemakers
- timeframes:

- according to the job requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

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