



# Pinot Noir provenance

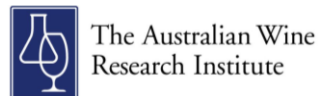
**Presenters:** Fiona Kerslake and Rocco Longo

**Project leads:** Fiona Kerslake and Gemma Lewis

**Collaborators:** Rocco Longo, Bob Dambergs, Richard Doyle, Dugald Close, Ange Merry, Hanna Westmore, Linda Donachie

SHAW + SMITH

hill-smith  
FAMILY VINEYARDS



Wine  
Australia  
for  
Australian  
Wine



# Project Background

3 years project (from 2017/18 to 2019/20)

1st Aim: Australian benchmarking to support growing, making, perception of quality

2nd Aim: Australian benchmarking to add value to the Pinot Noir supply chain

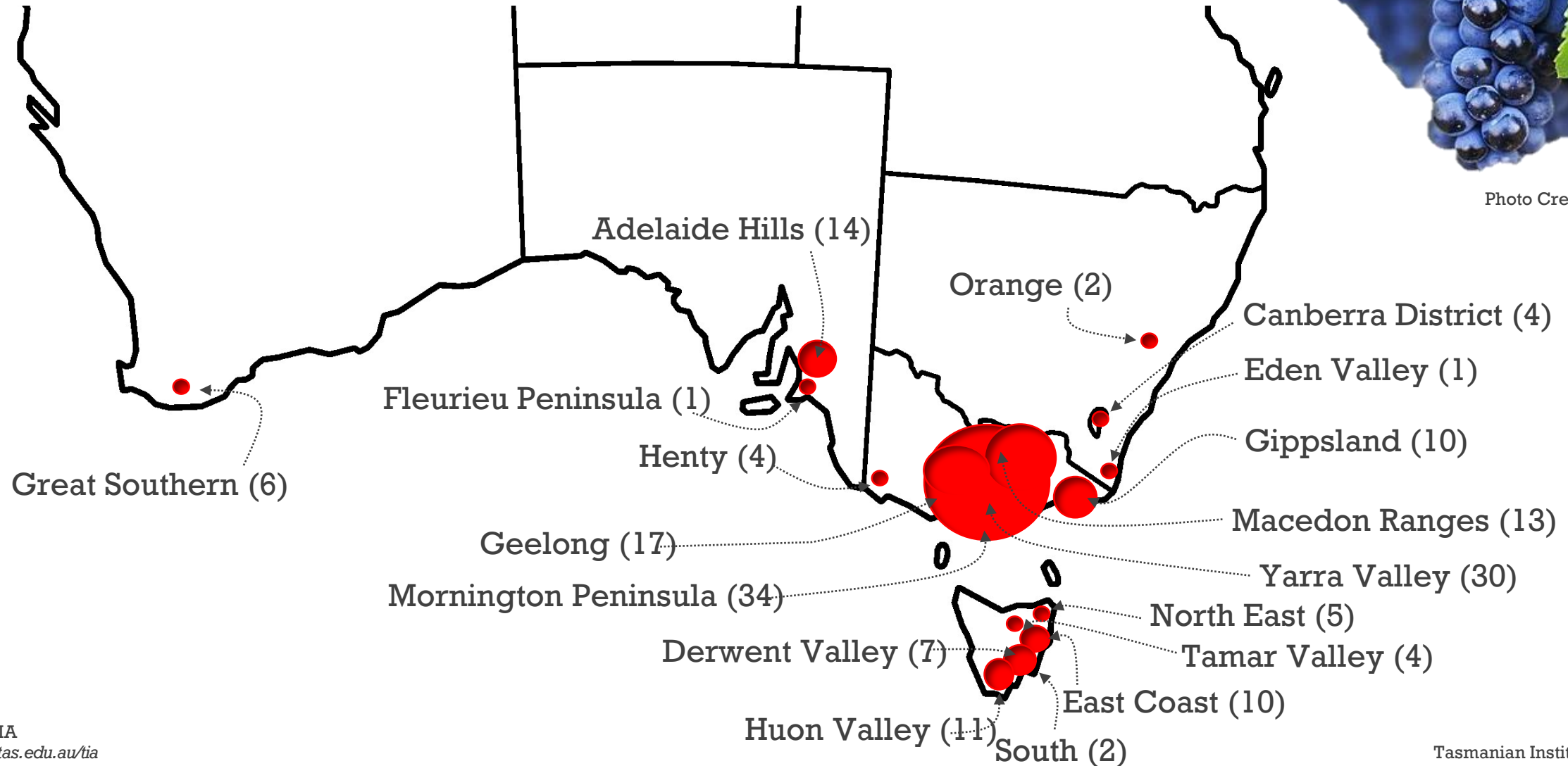
## Selection Criteria

1. Acknowledgement by wine masters as being of the very highest standard
2. Representative of a geographic spread of Pinot Noir production sites in Australia
3. Being produced by a winery that is willing to participate in the research

# Initial Selected Australian Pinot Noirs



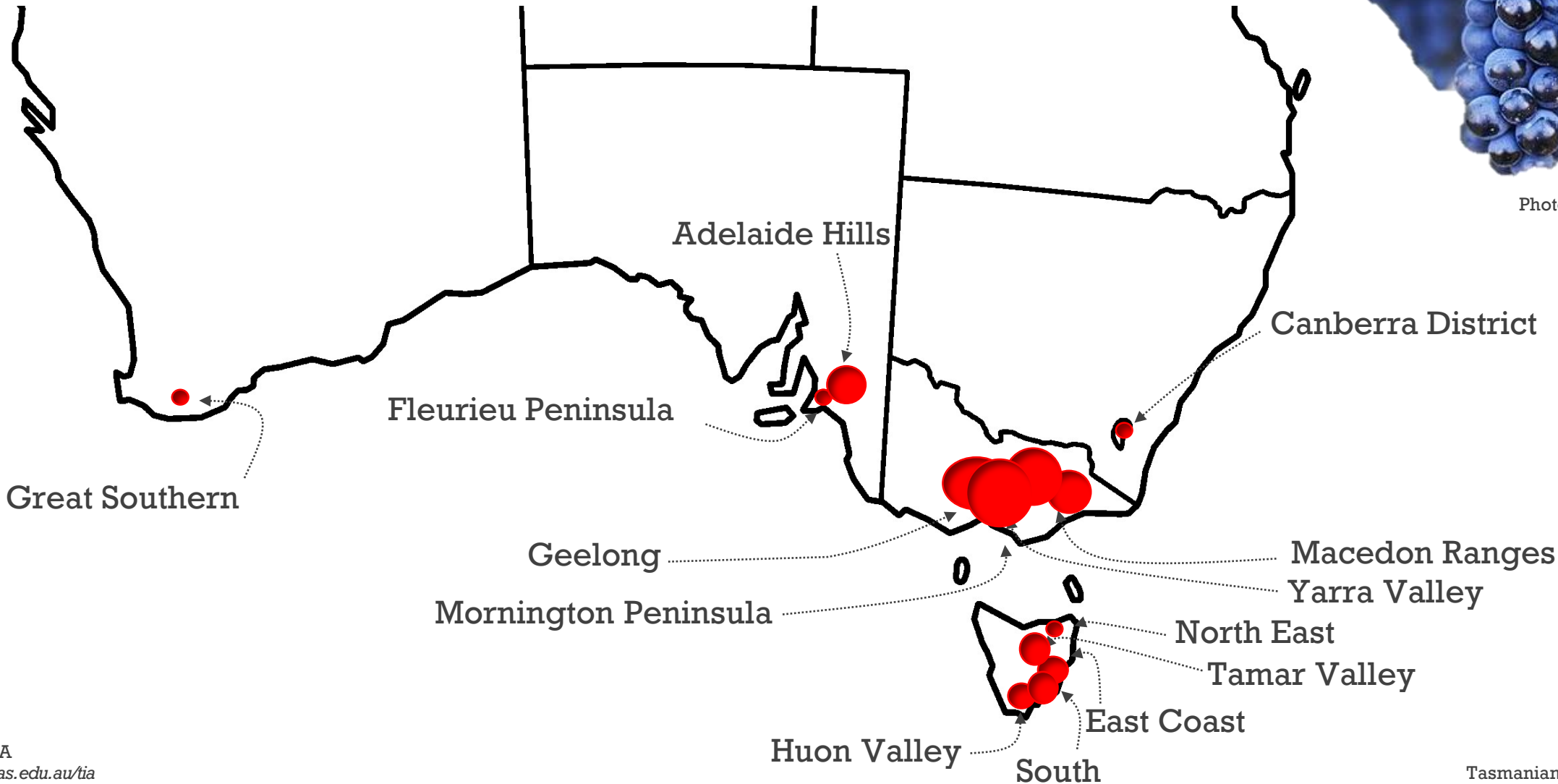
Photo Credit: Paringa Estate



# Final Selected Australian Regions



Photo Credit: Paringa Estate





# Creation of a Data Base

- Online survey: 200 questions
- Vineyard/Vine/Viticultural and Winemaking Management/Marketing

The screenshot displays a survey interface for the 'Provenance of Pinot noir Project'. The top navigation bar includes a back arrow, the project name, a star icon, and a 'SEND' button. Below this, a tabbed interface shows 'QUESTIONS' and 'RESPONSES' (43). The current section is 'Section 1 of 25'. The main content area contains the title 'Provenance of Pinot noir Project' and a paragraph explaining the requirements for participation: 'Should you choose to participate, we require x2 bottles of 2015 or 2016 single-vineyard Pinot noir and associated vineyard and winemaking data for those wines. To obtain high quality data for this project, the preference of wines to be submitted are listed below, with 1 the most preferred. We are unfortunately unable to accept wines that are from multiple vineyards as this will be it difficult to identify the primary drivers of the wine composition.' A list of four options follows: 1. Single block, single clone; 2. Single vineyard, single clone; 3. Single block, multiple clones; 4. Single vineyard, multiple clones. Below the list is a consent statement: 'Your participation in the survey implies that your consent is given to collect this data.' The bottom of the survey shows 'After section 1' and a 'Continue to next section' button. A sidebar on the right contains icons for adding content, text, images, video, and a menu.

← Provenance of Pinot noir Project

Australia

QUESTIONS RESPONSES 43

Section 1 of 25

### Provenance of Pinot noir Project

Should you choose to participate, we require x2 bottles of 2015 or 2016 single-vineyard Pinot noir and associated vineyard and winemaking data for those wines. To obtain high quality data for this project, the preference of wines to be submitted are listed below, with 1 the most preferred. We are unfortunately unable to accept wines that are from multiple vineyards as this will be it difficult to identify the primary drivers of the wine composition.

1. Single block, single clone
2. Single vineyard, single clone
3. Single block, multiple clones
4. Single vineyard, multiple clones

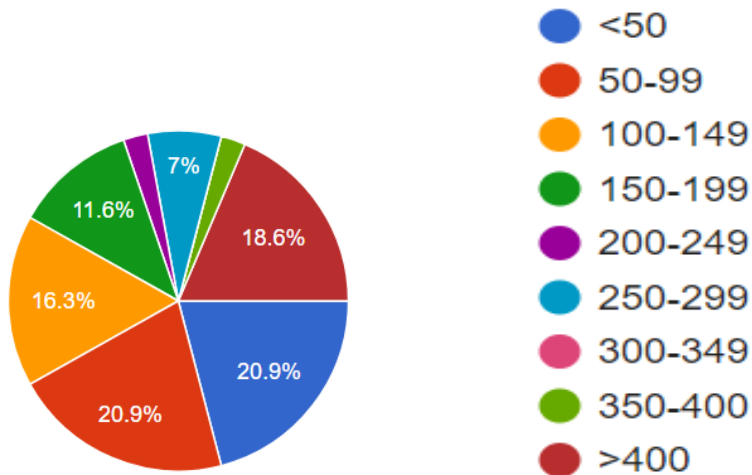
Your participation in the survey implies that your consent is given to collect this data.

After section 1 Continue to next section

# Online Survey Outcomes

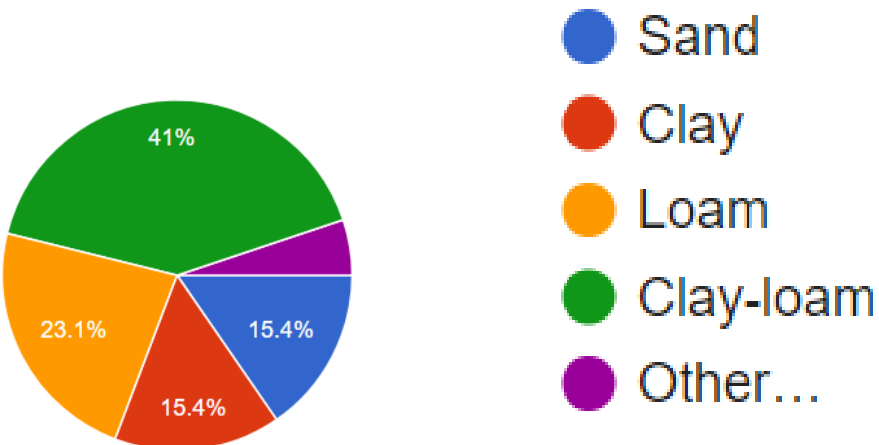
## Altitude?

43 responses



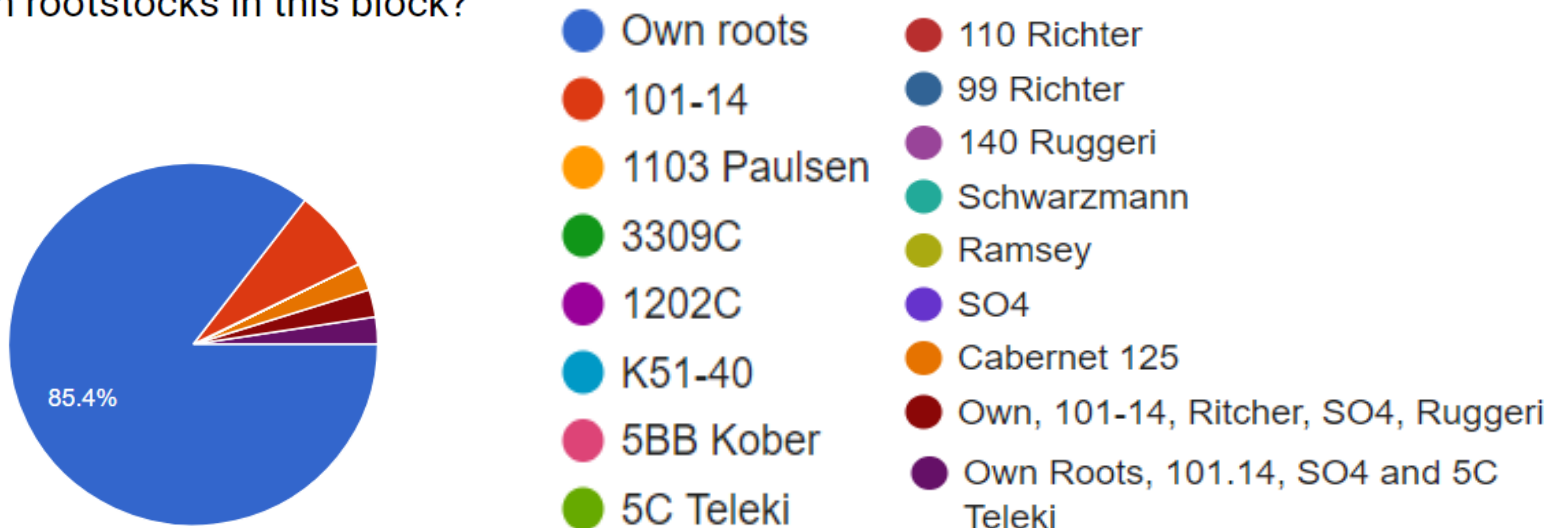
## What is the main type of soil in this block?

39 responses



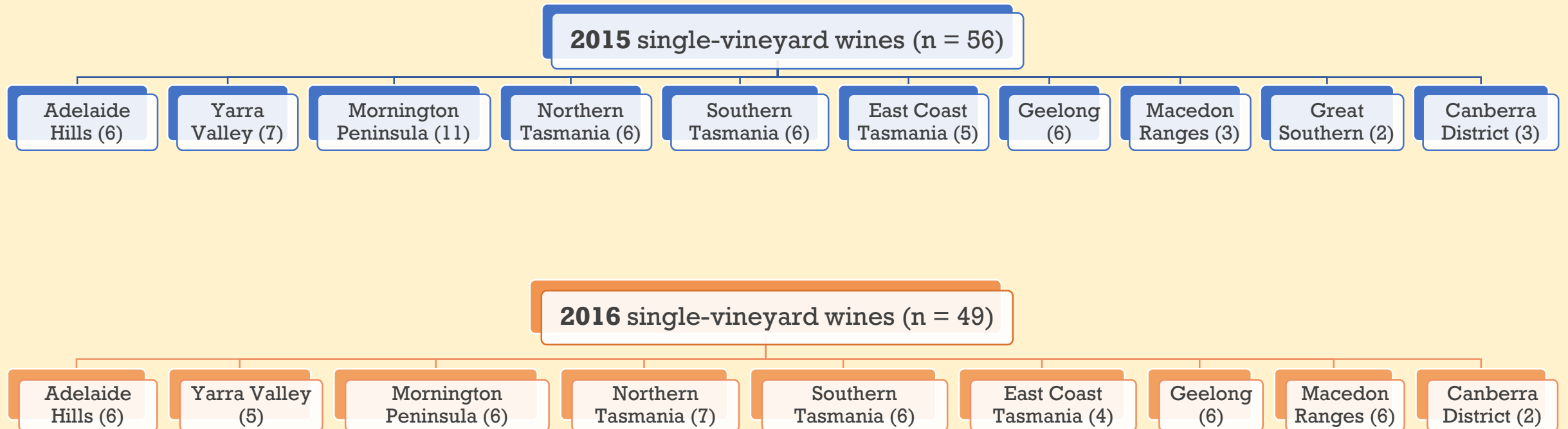
## Are the vines on rootstocks in this block?

41 responses

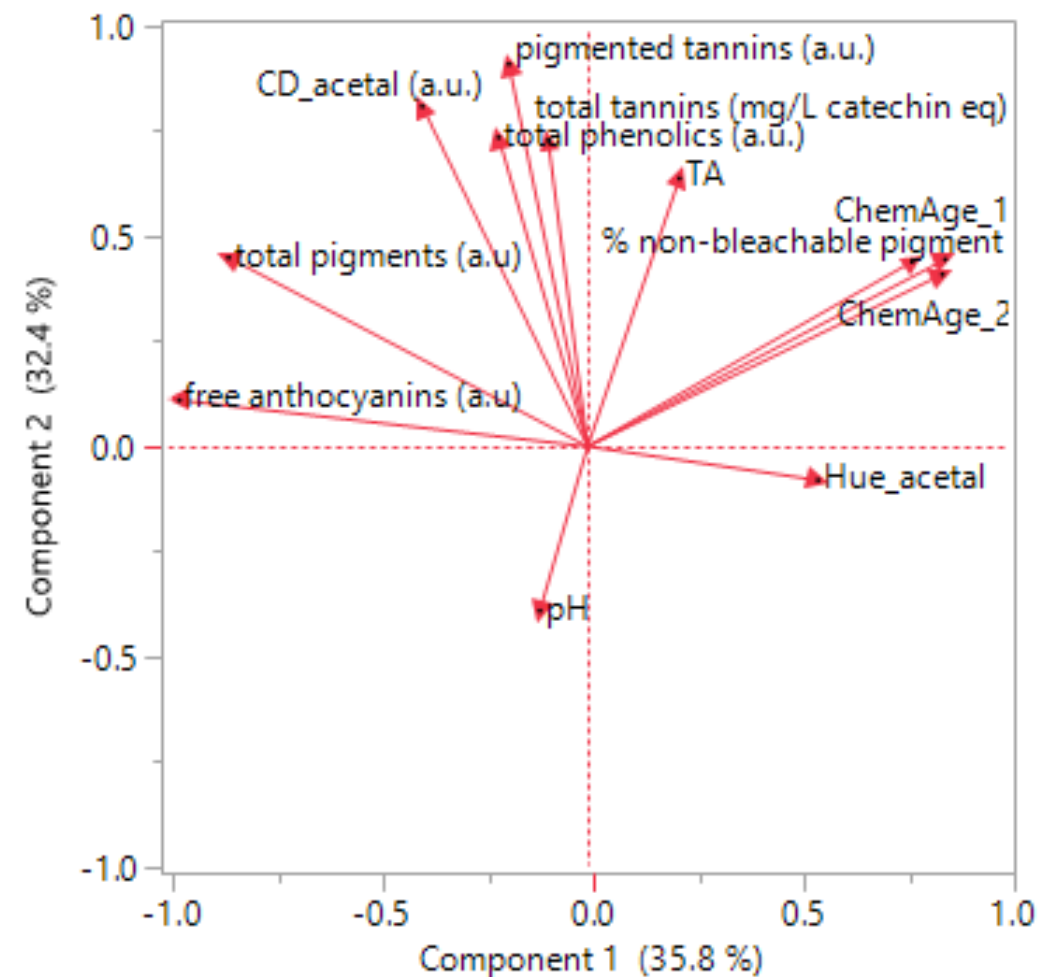
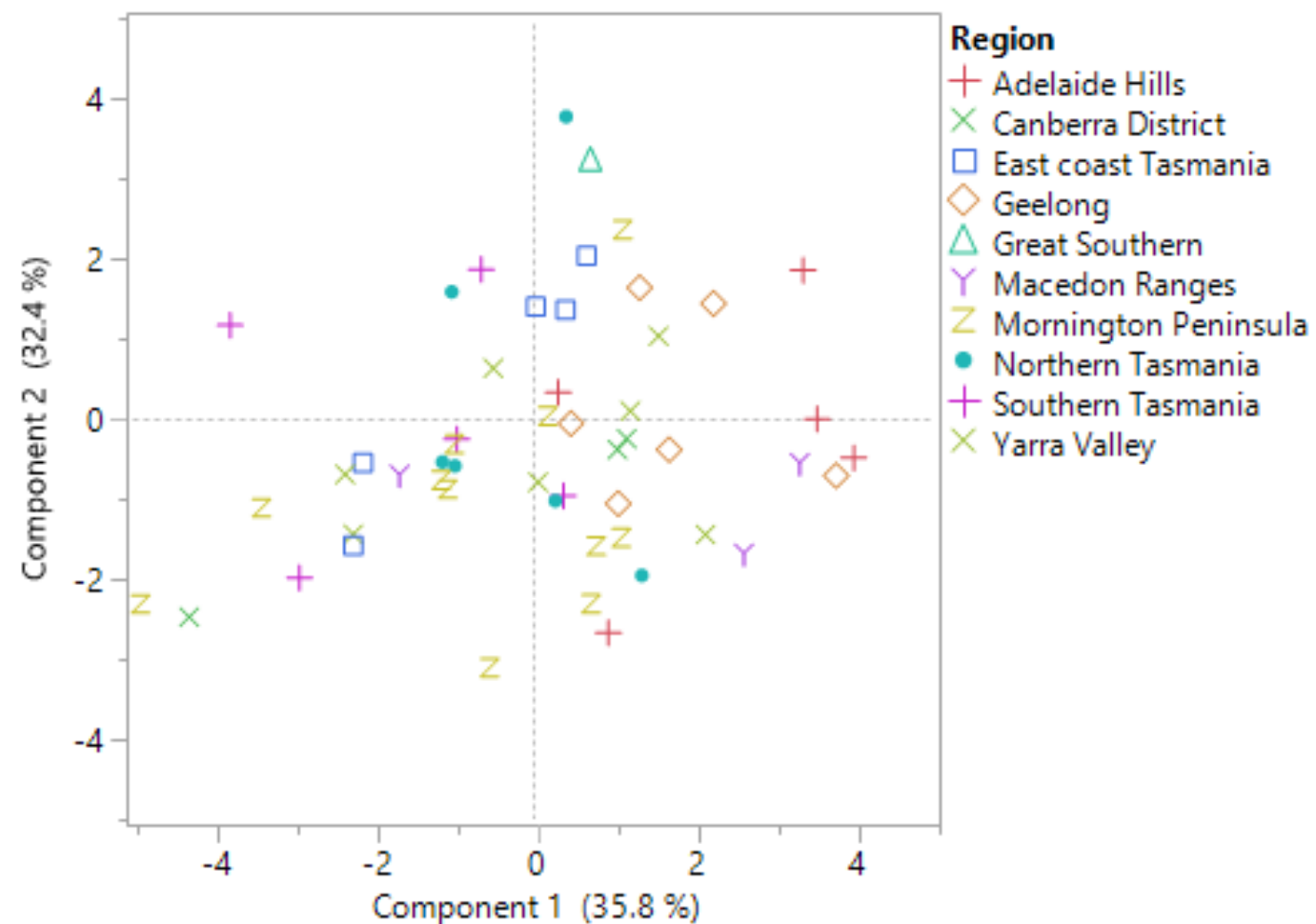


# 1<sup>st</sup> Experimental Design: Australian Pinot Noir Wines

- Somers Analysis: Colour + Phenolic Characterisation

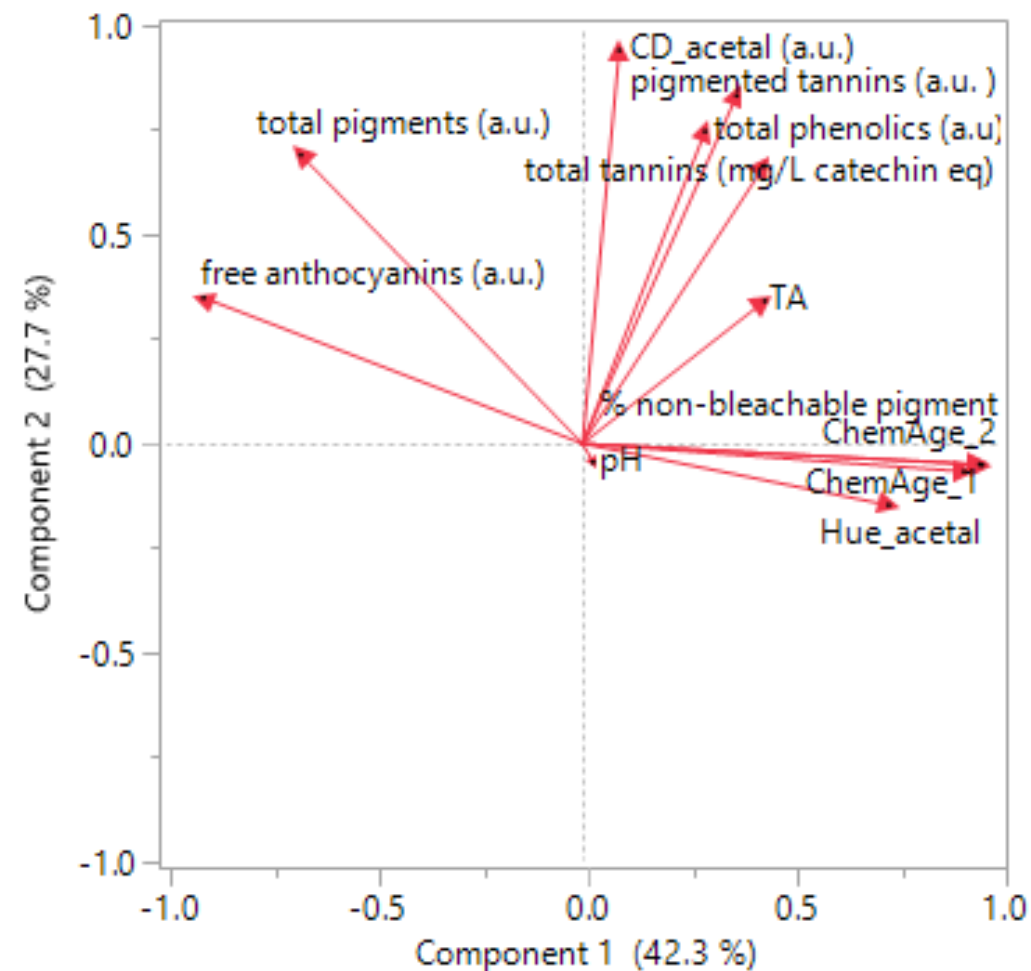
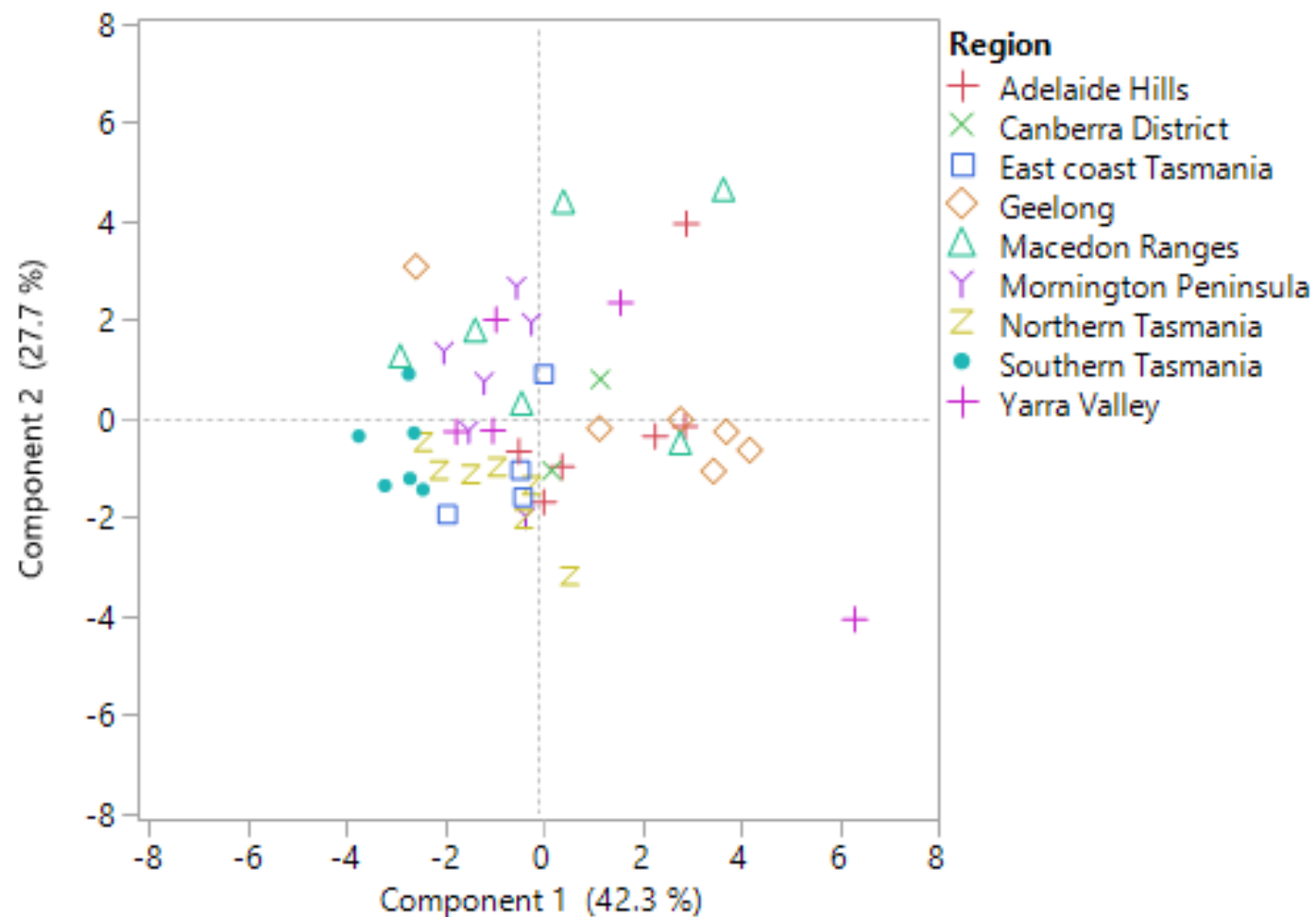


## Australian PN 2015 (n = 56) wines

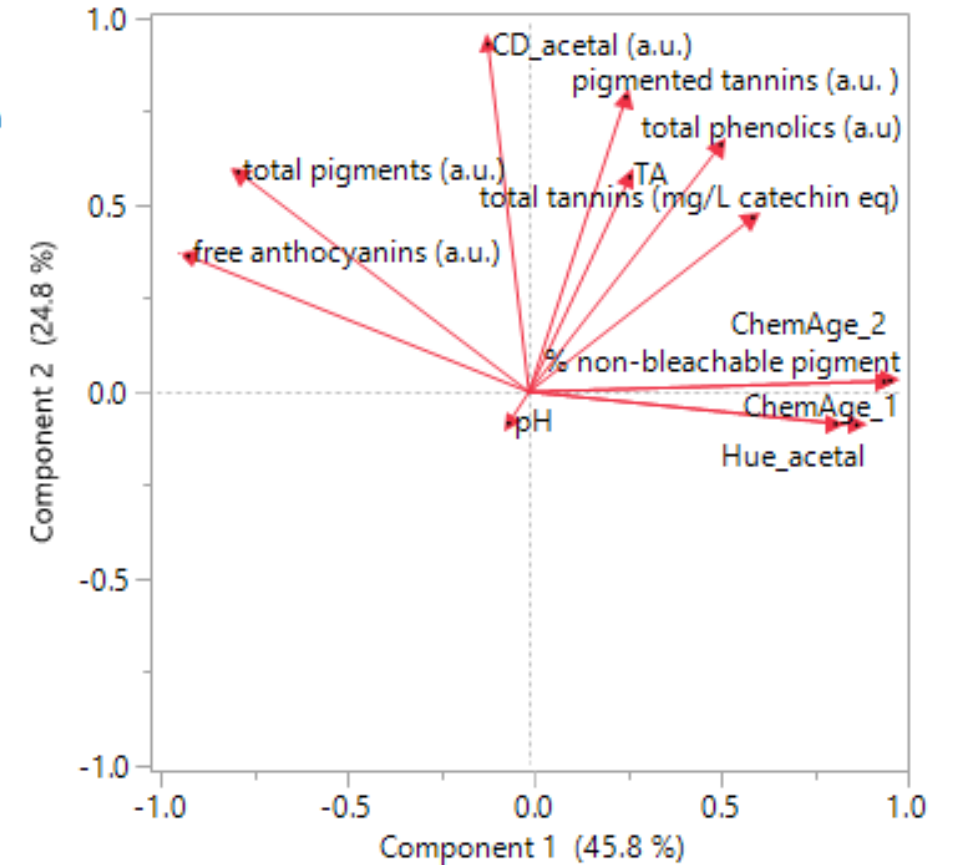
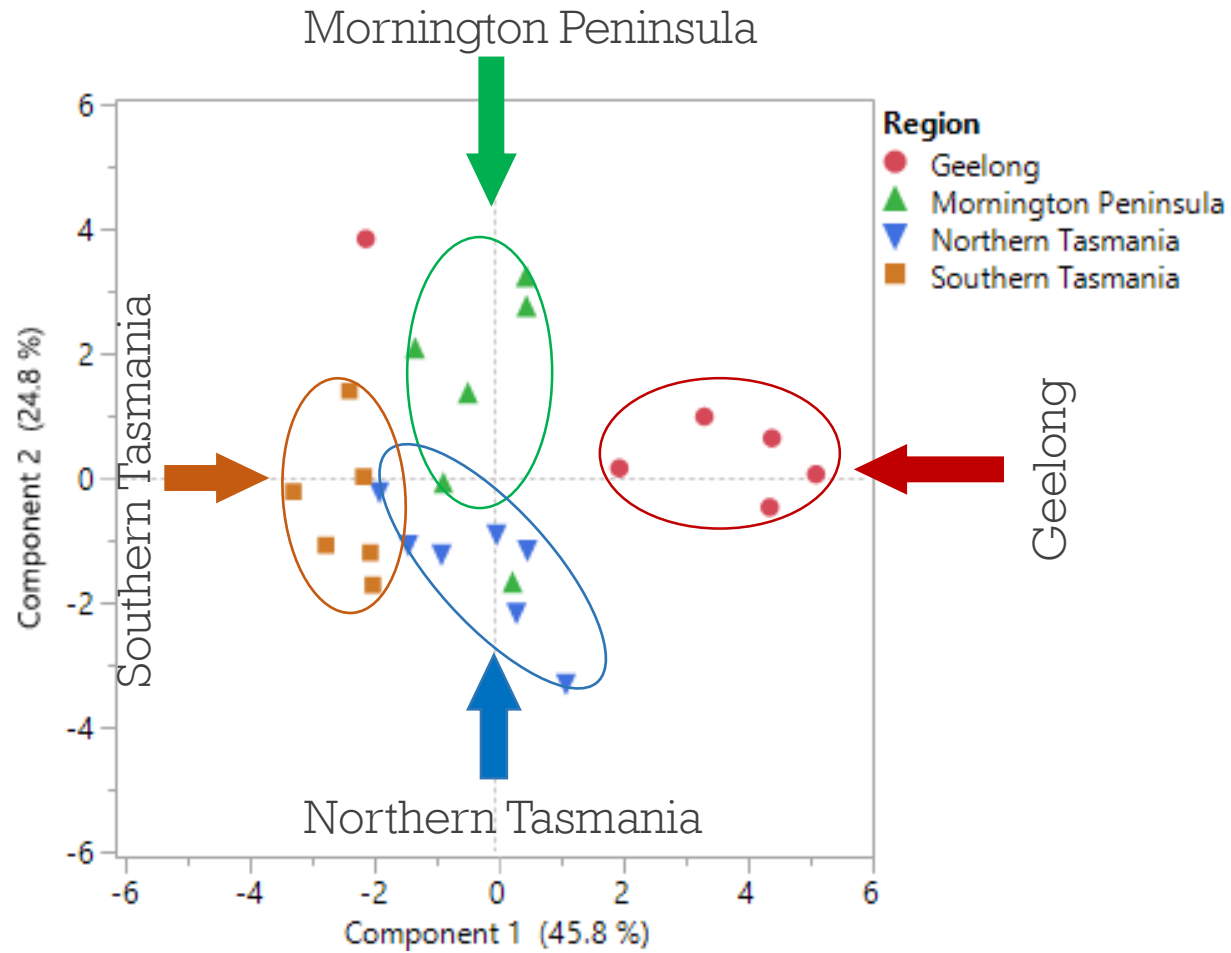




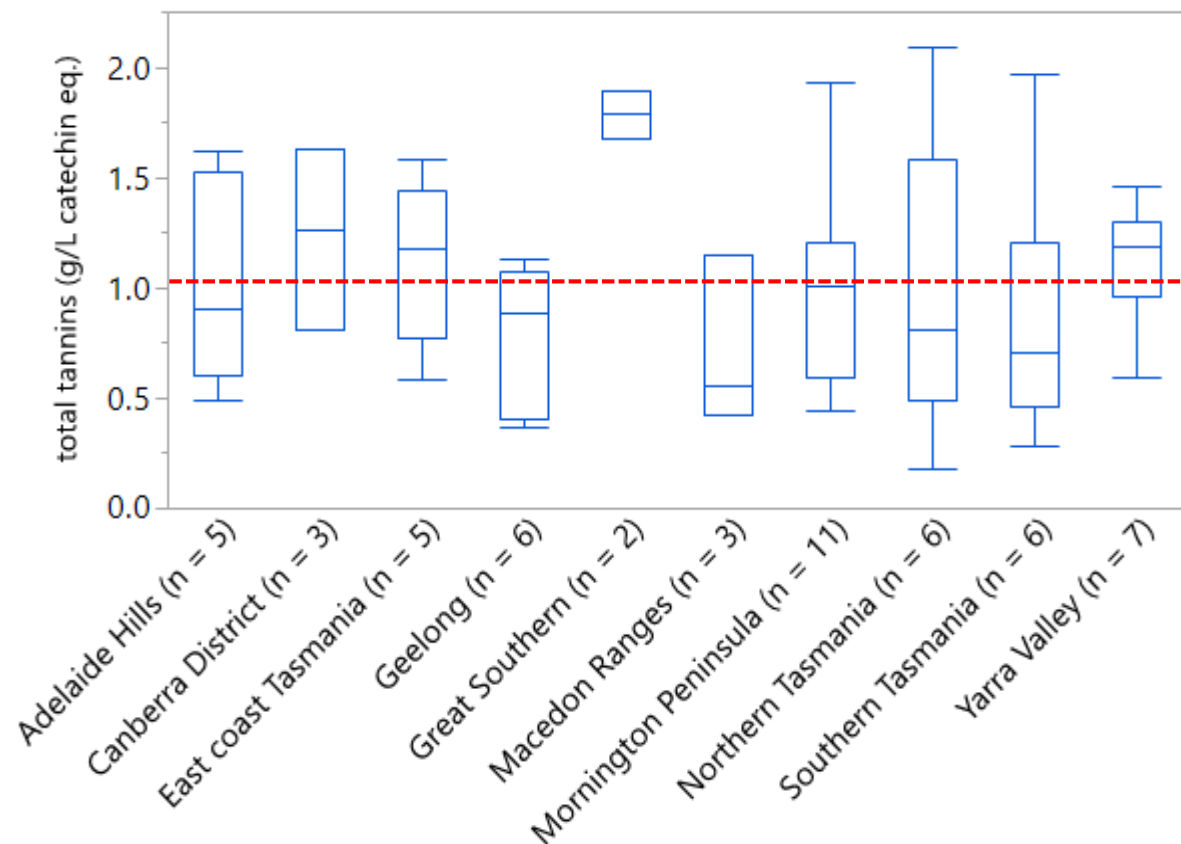
## Australian PN 2016 (n = 49) wines



## Australian PN 2016 (n = 48) wines

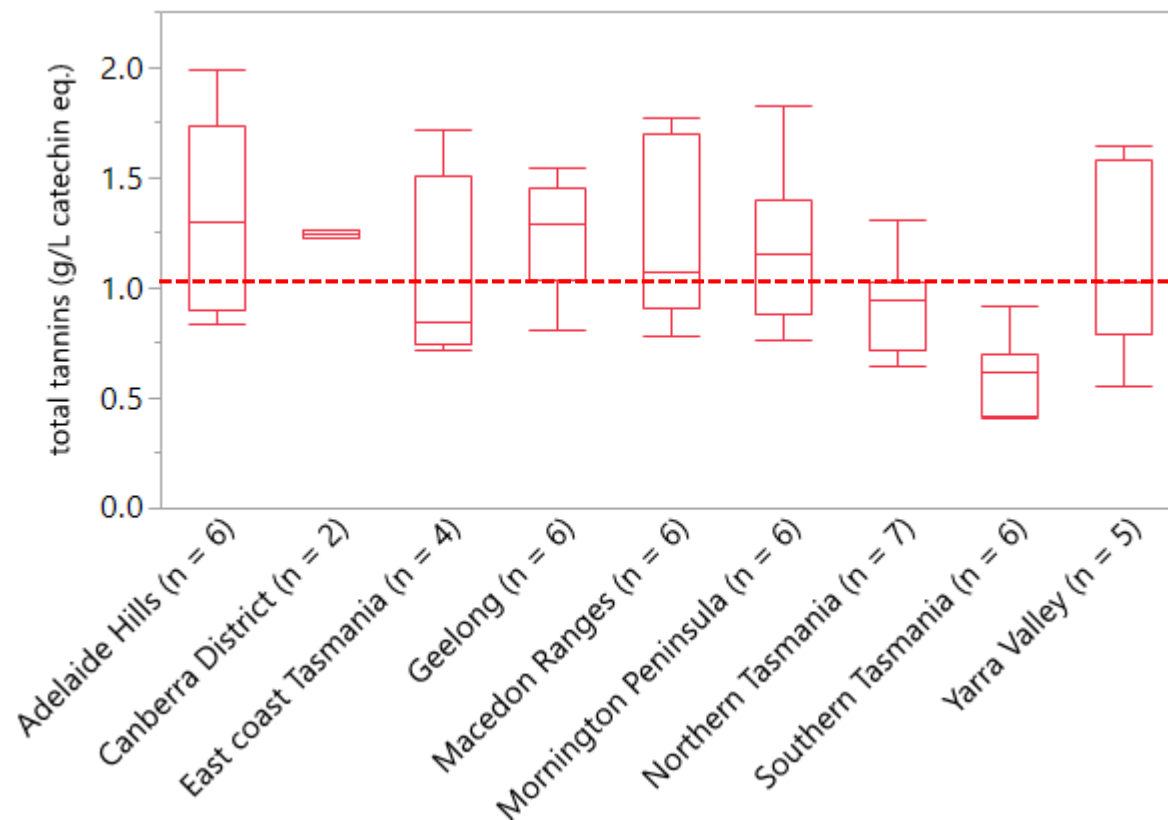


## 2015 Samples

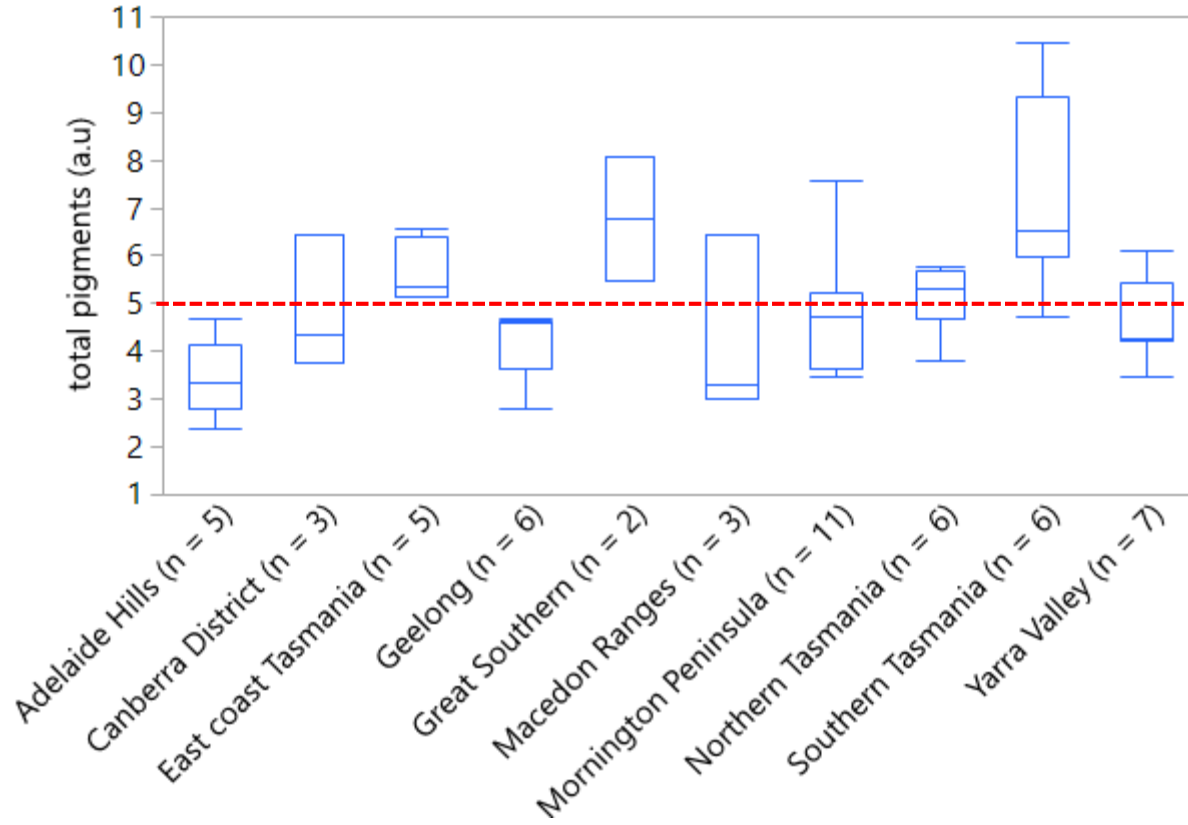


----- Australian average

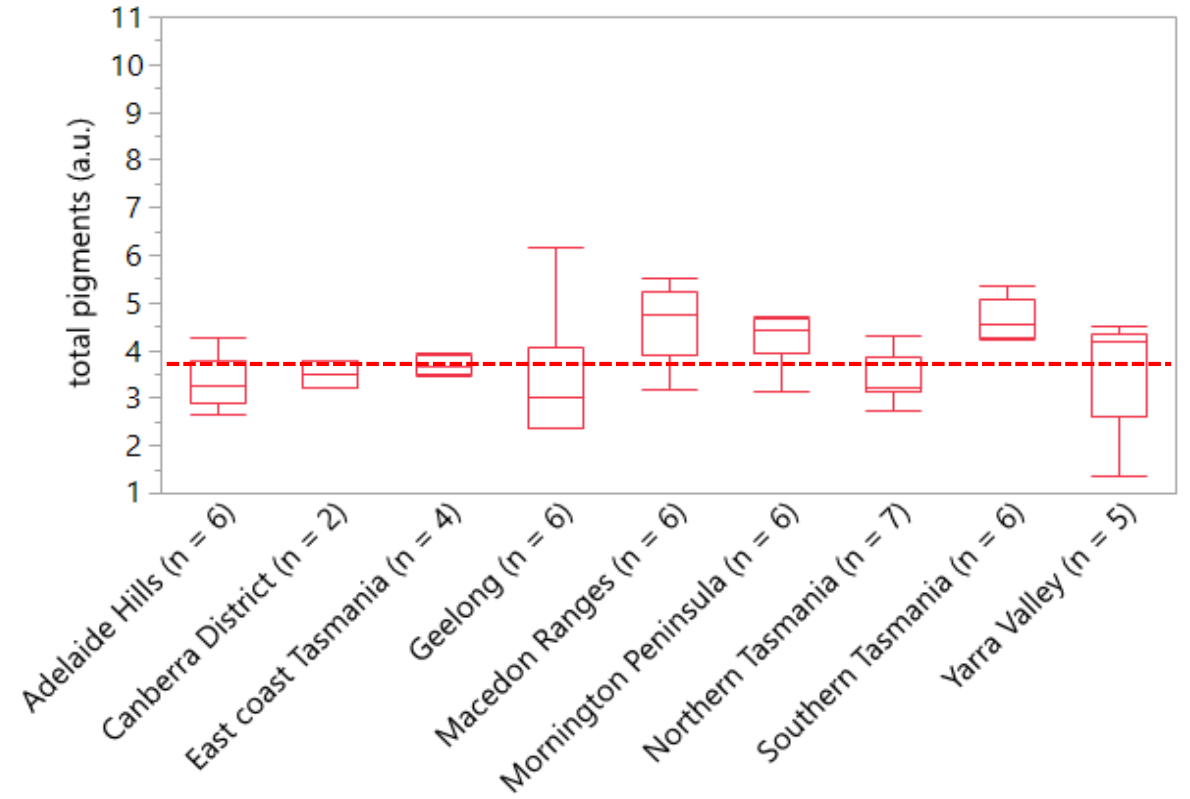
## 2016 Samples



## 2015 Samples

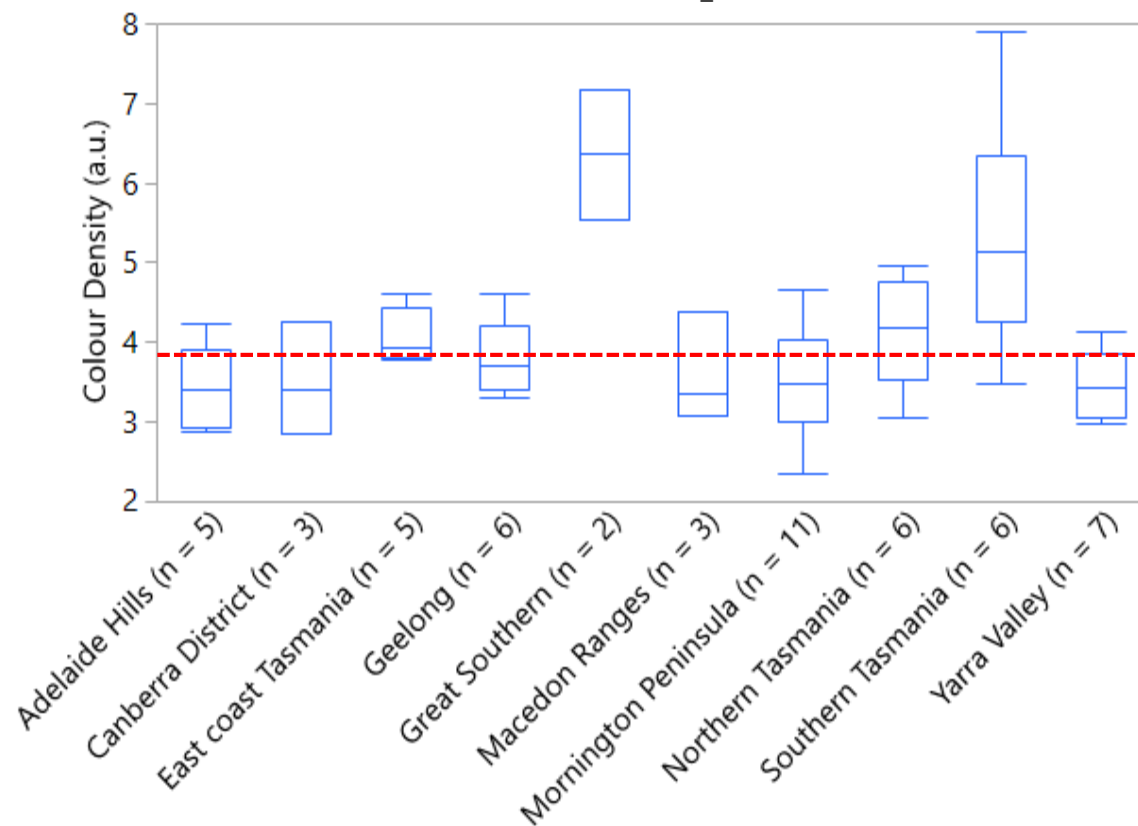


## 2016 Samples

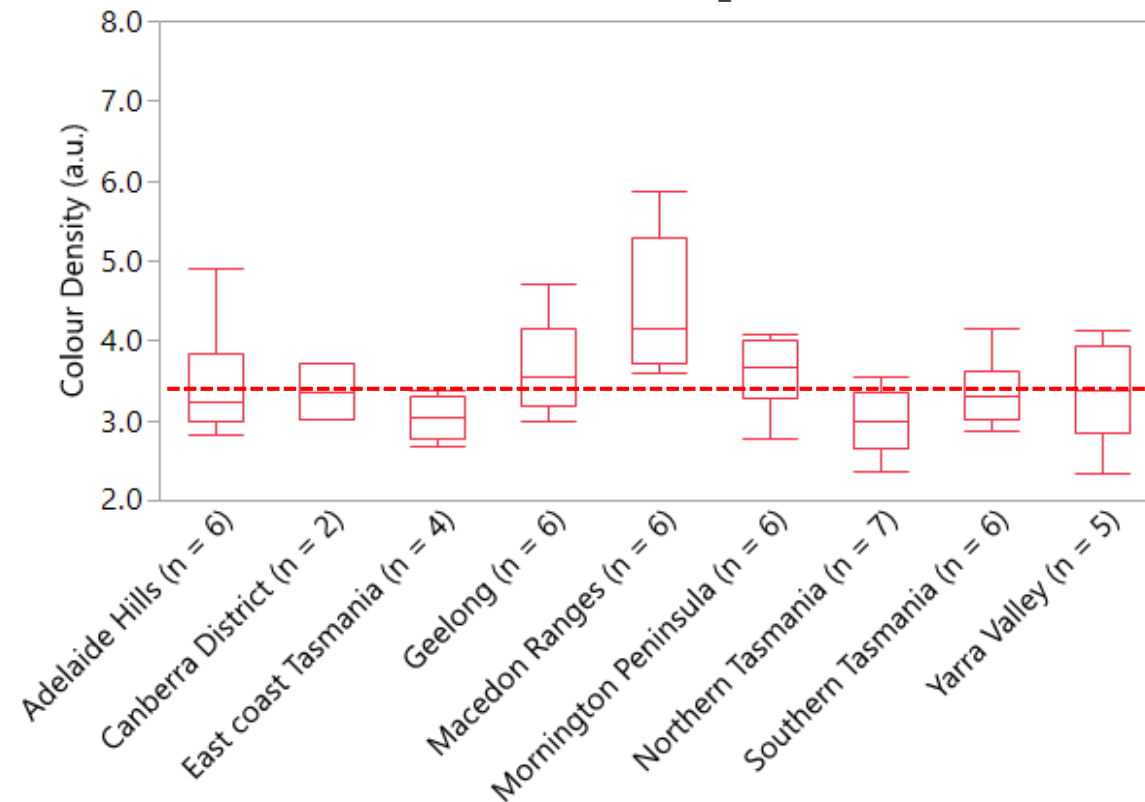


----- Australian average

### 2015 Samples

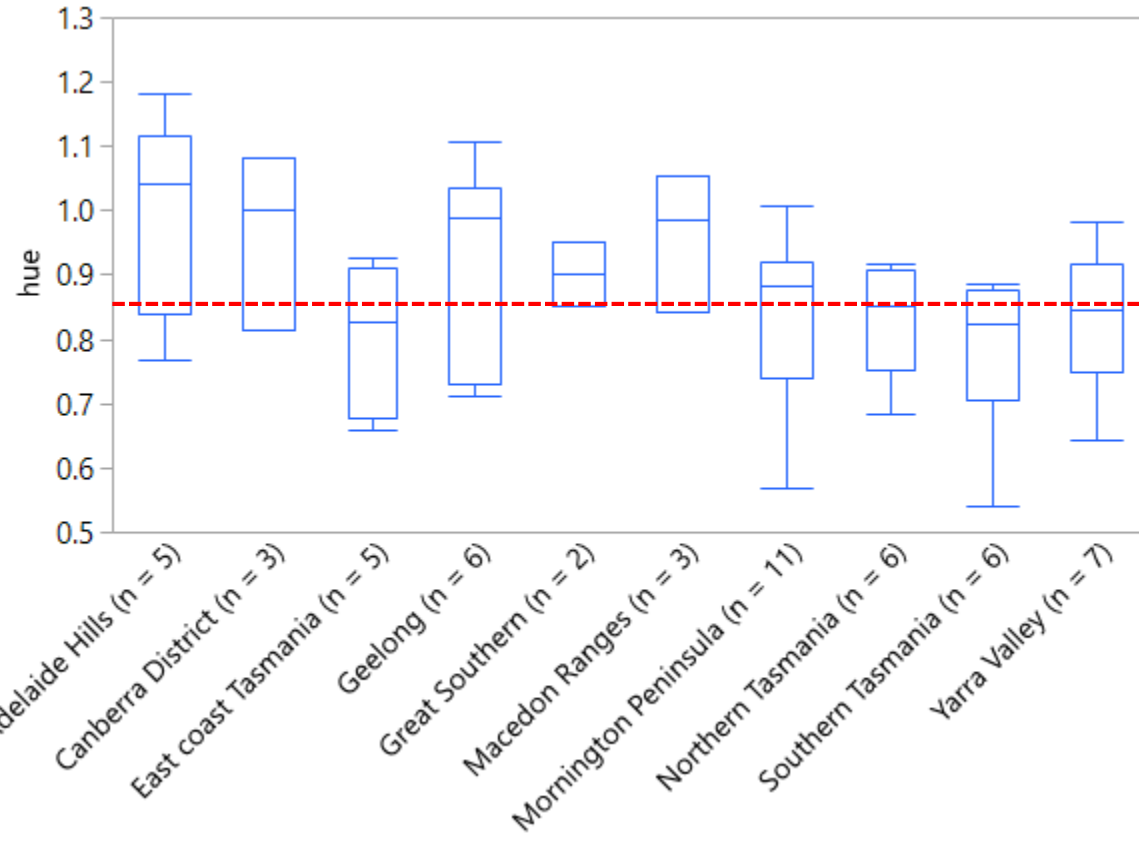


### 2016 Samples

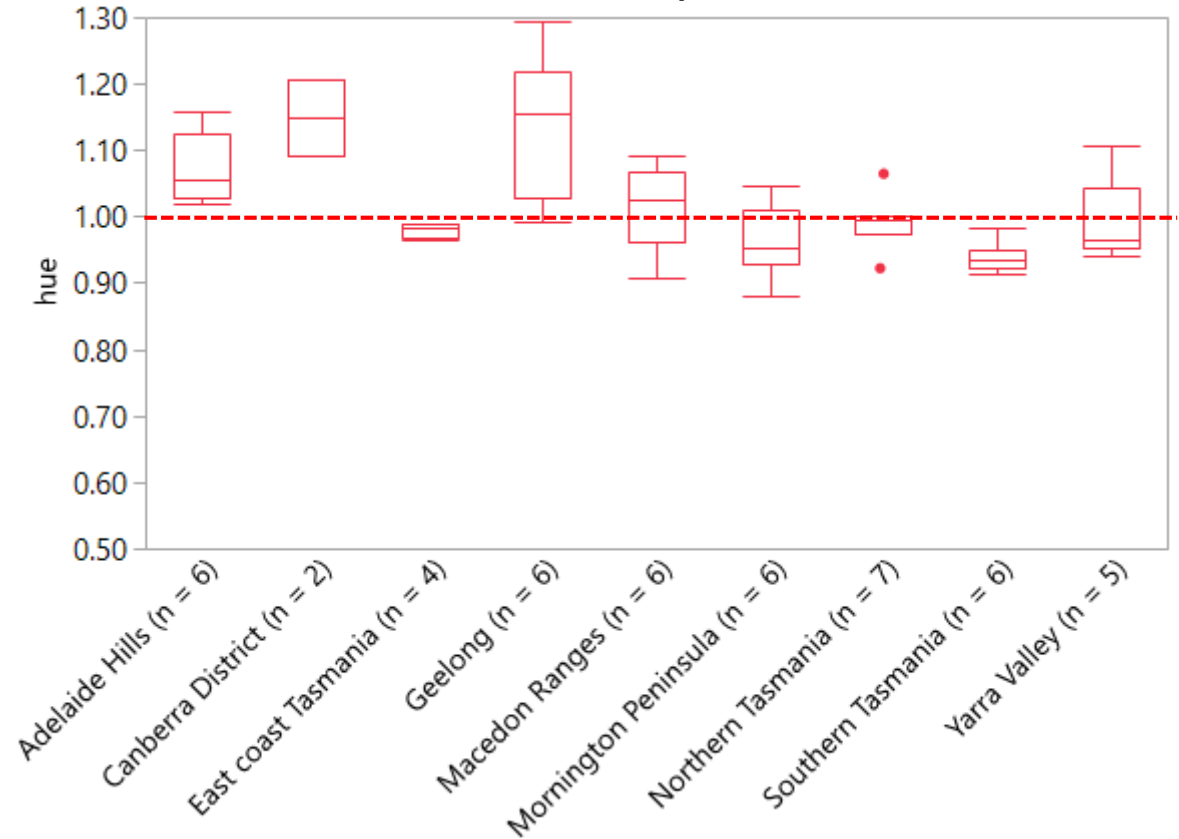


----- Australian average

## 2015 Samples



## 2016 Samples



----- Australian average

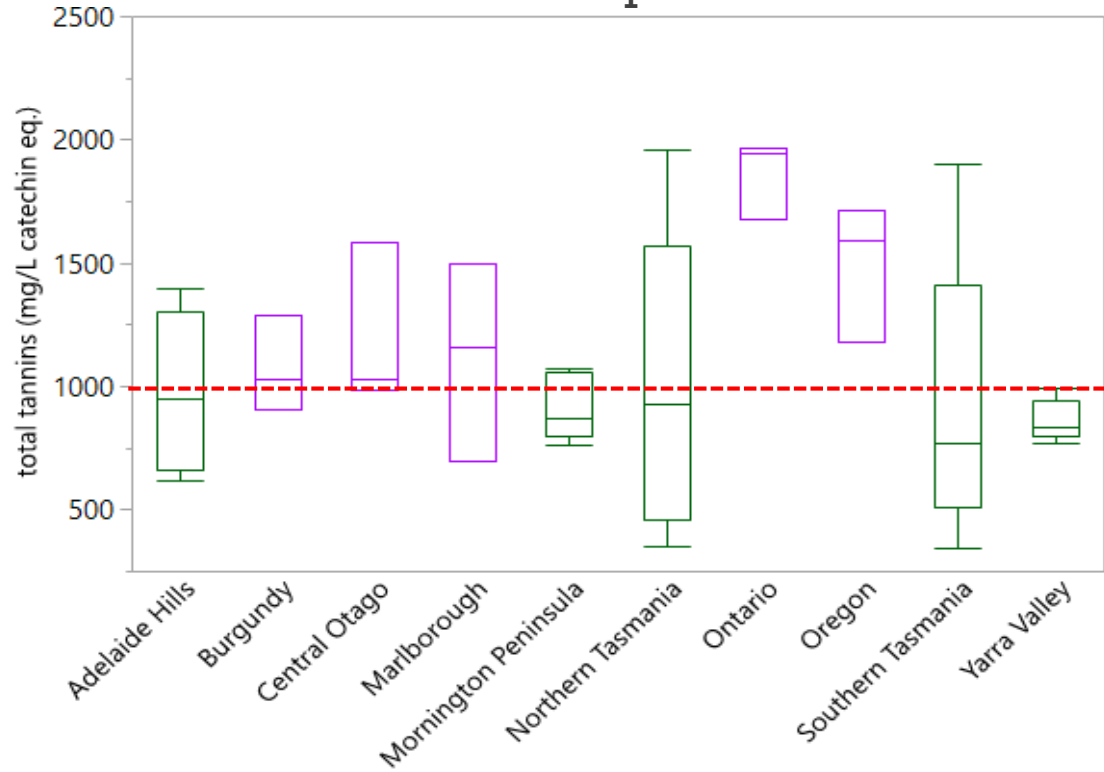


## 2<sup>nd</sup> Experimental Design: Australian and International Pinot Noir Wines

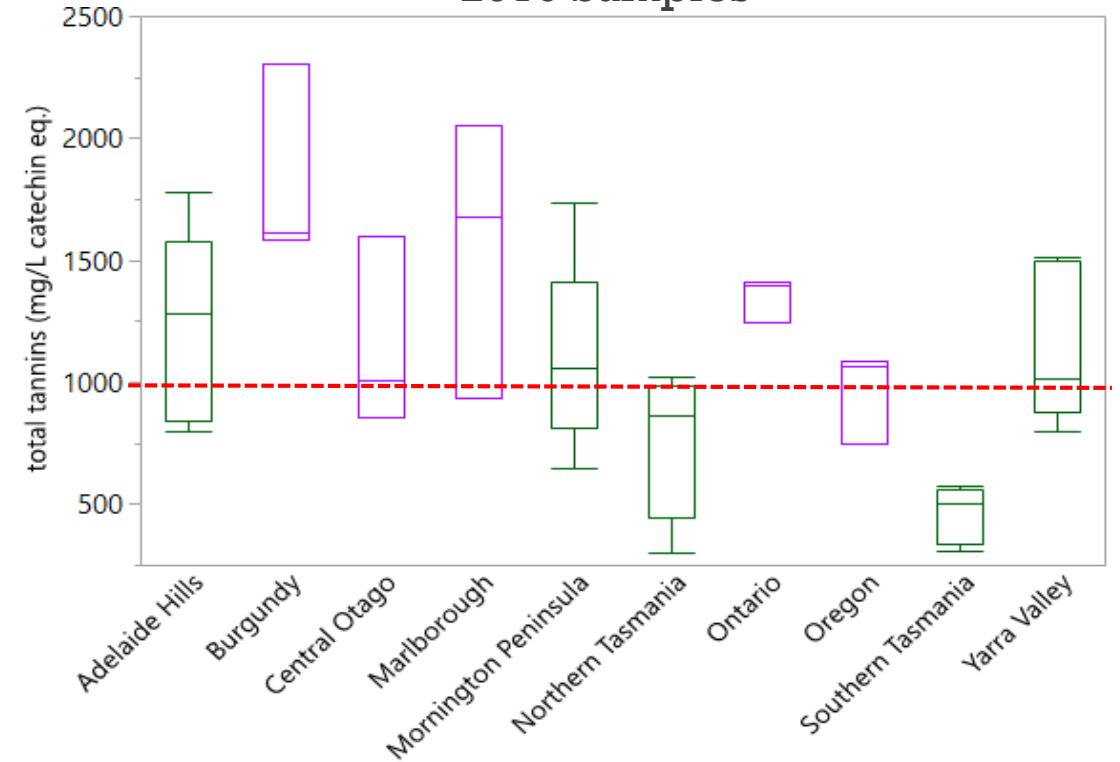
- Somers Analysis: Colour + Phenolic Characterisation
- HS-SPME/GC-MS analysis: 21 volatile compounds relevant to Pinot Noir aroma (ongoing)



## 2015 Samples

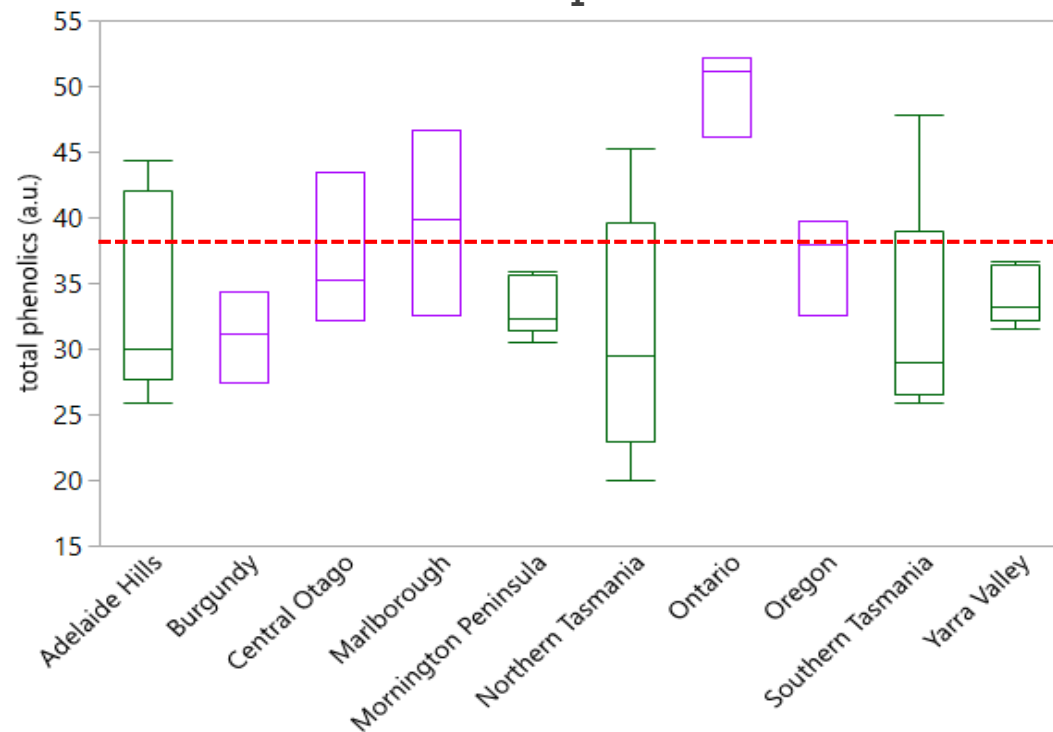


## 2016 Samples

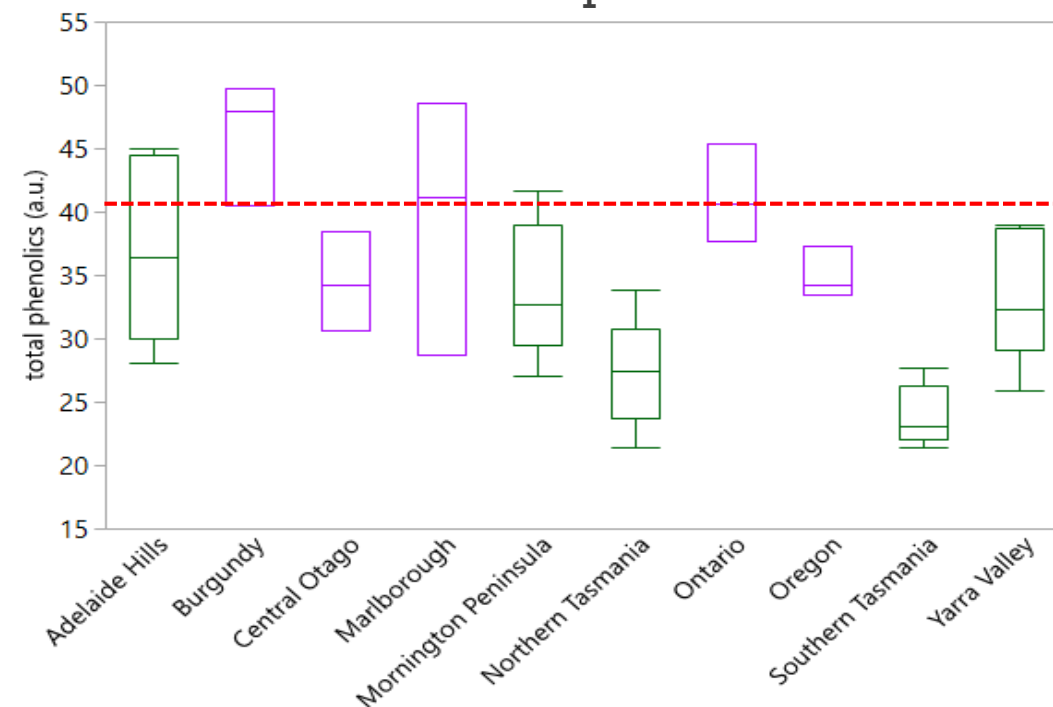


- International wine (n = 3)
- Australian wine (n = 5)
- - - Australian average

## 2015 Samples

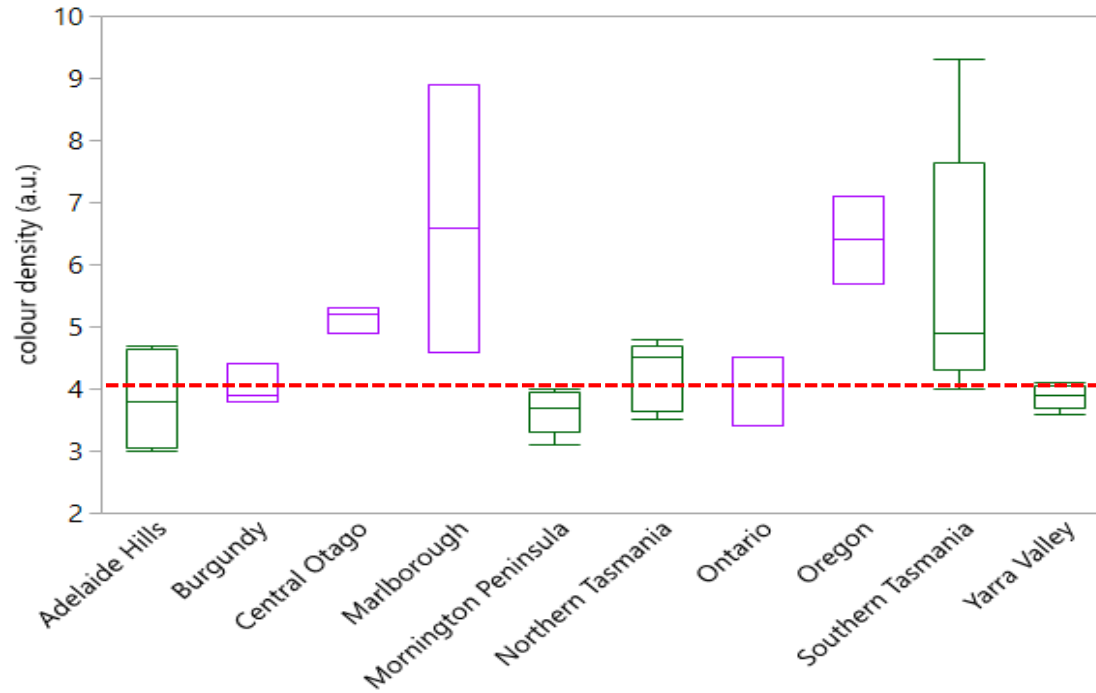


## 2016 Samples

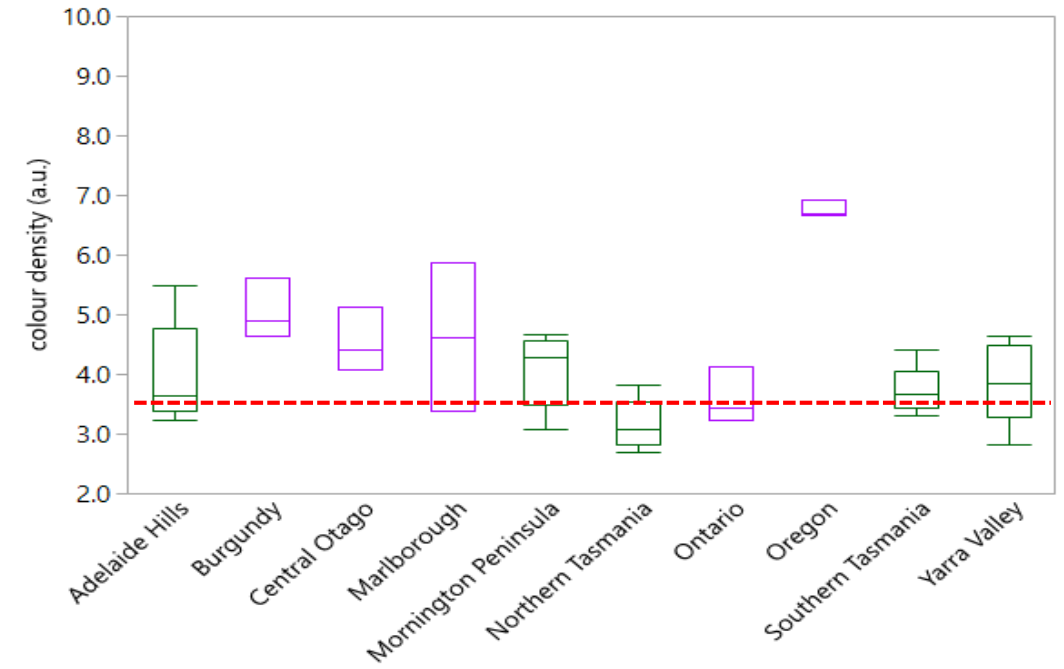


- International wine (n = 3)
- Australian wine (n = 5)
- - - Australian average

## 2015 Samples

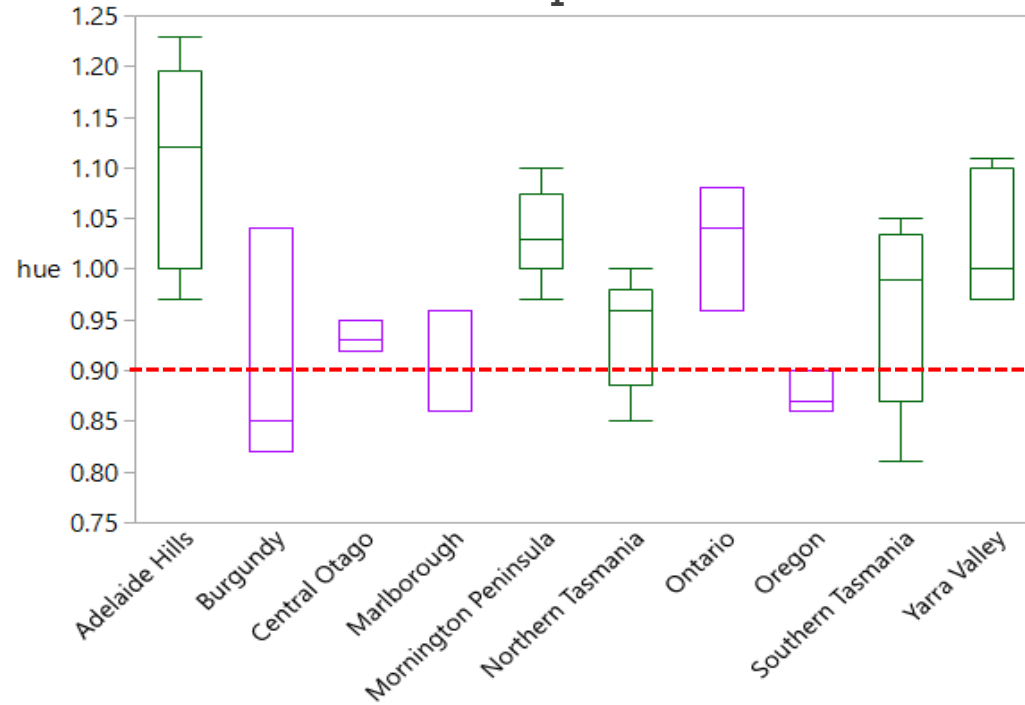


## 2016 Samples

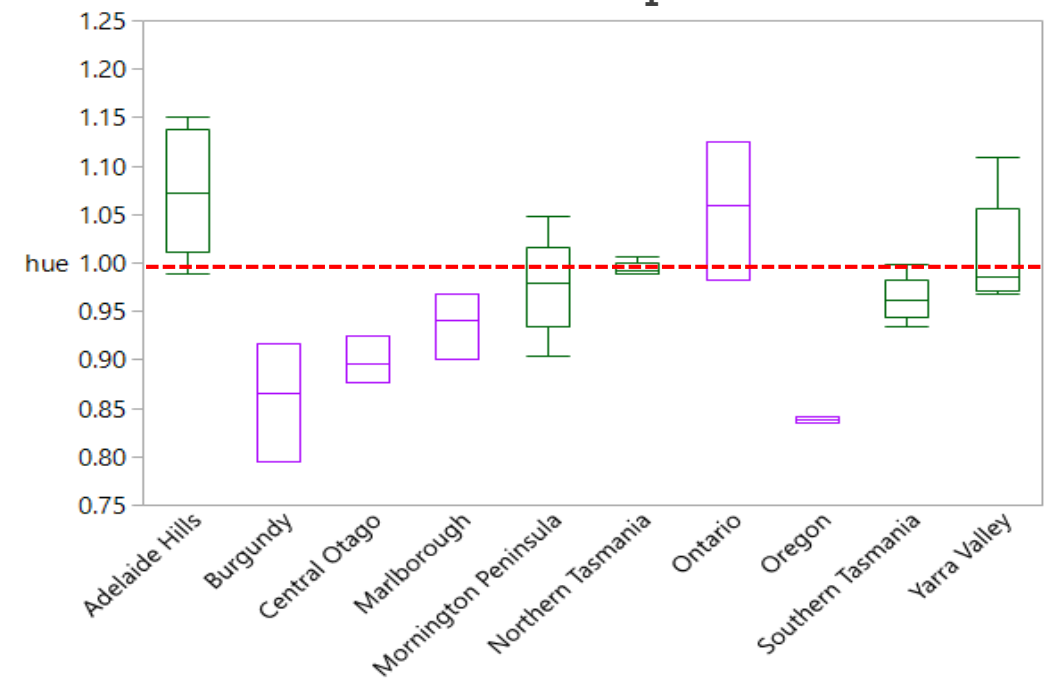


- International wine (n = 3)
- Australian wine (n = 5)
- - - Australian average

2015 Samples

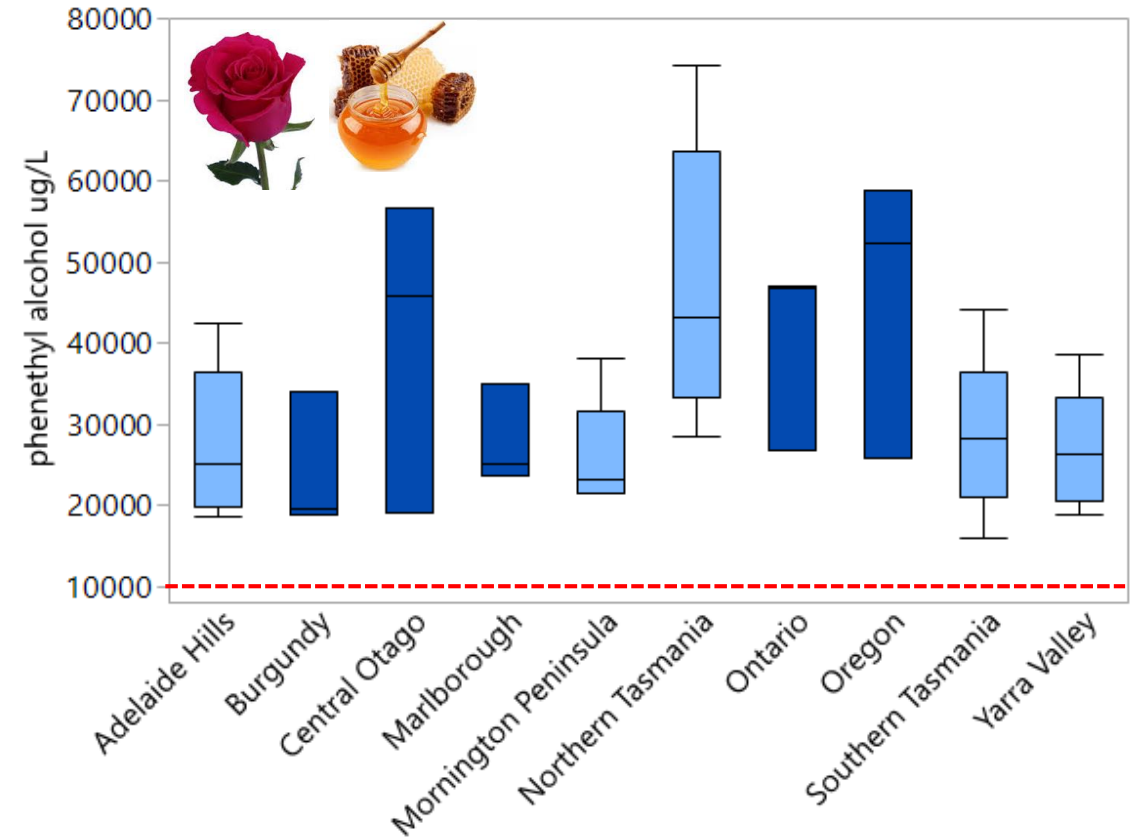
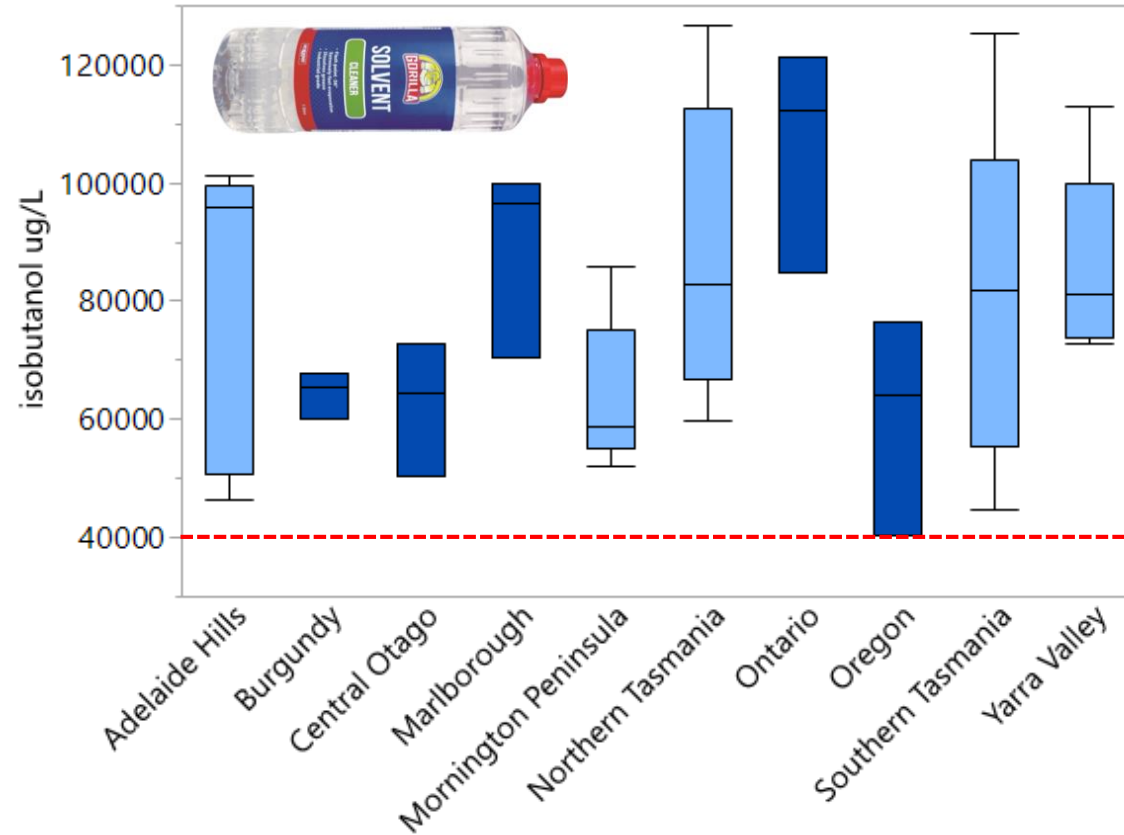


2016 Samples



- International wine (n = 3)
- Australian wine (n = 5)
- - - Australian average

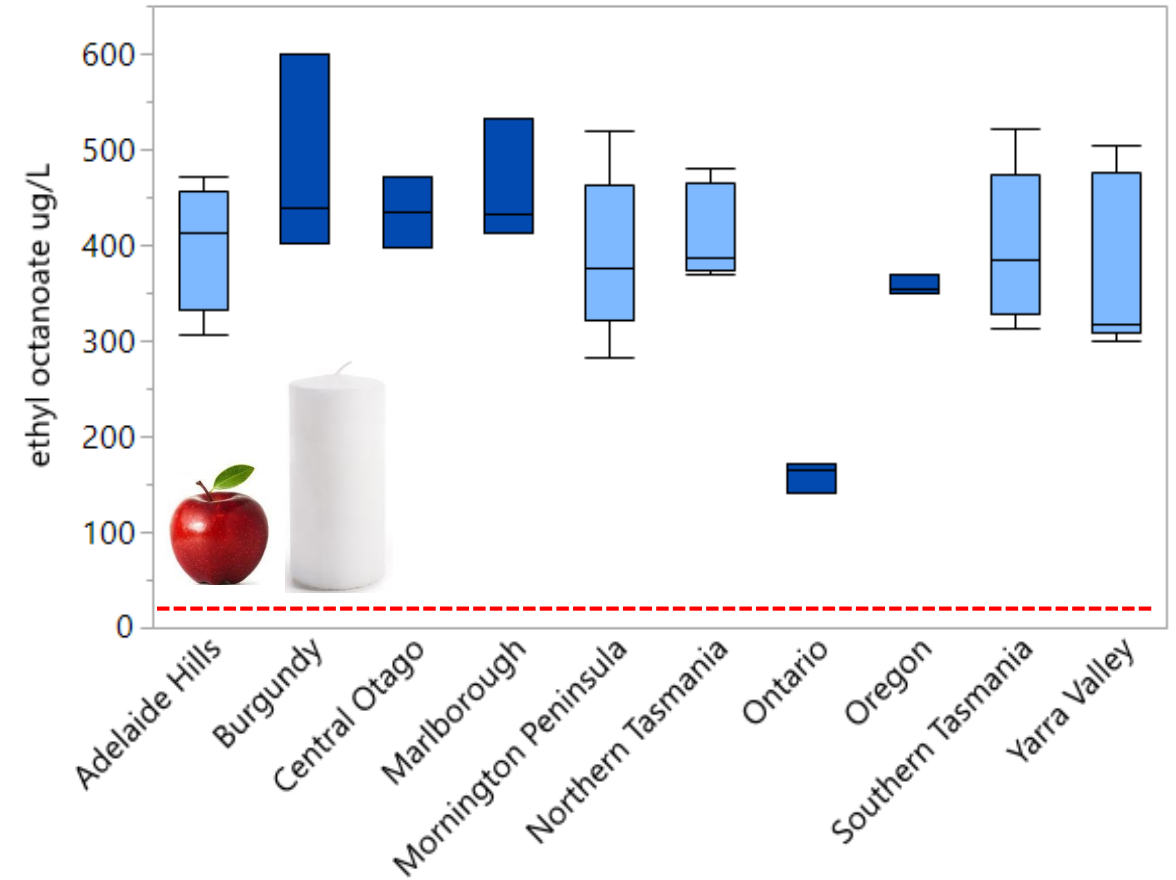
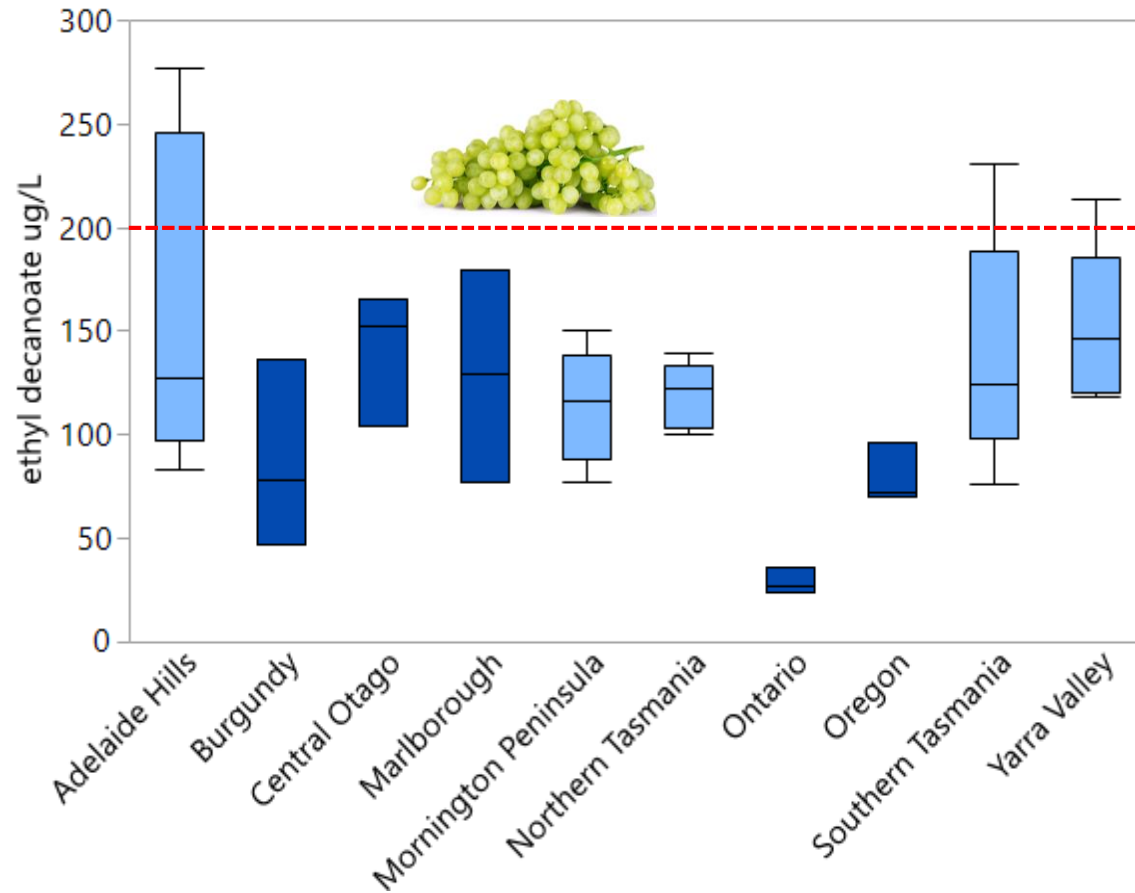
## Aroma Analysis: Australian (n = 25) vs International (n = 15) PN 2015 wines



- Australian wines (n = 5)
- International wines (n = 3)
- Odour threshold in 13% v/v ethanol solutions (Francis, I.L. and J.L. Newton, 2005)



## Aroma Analysis: Australian (n = 25) vs International (n = 15) PN 2015 wines



Australian wines (n = 5)

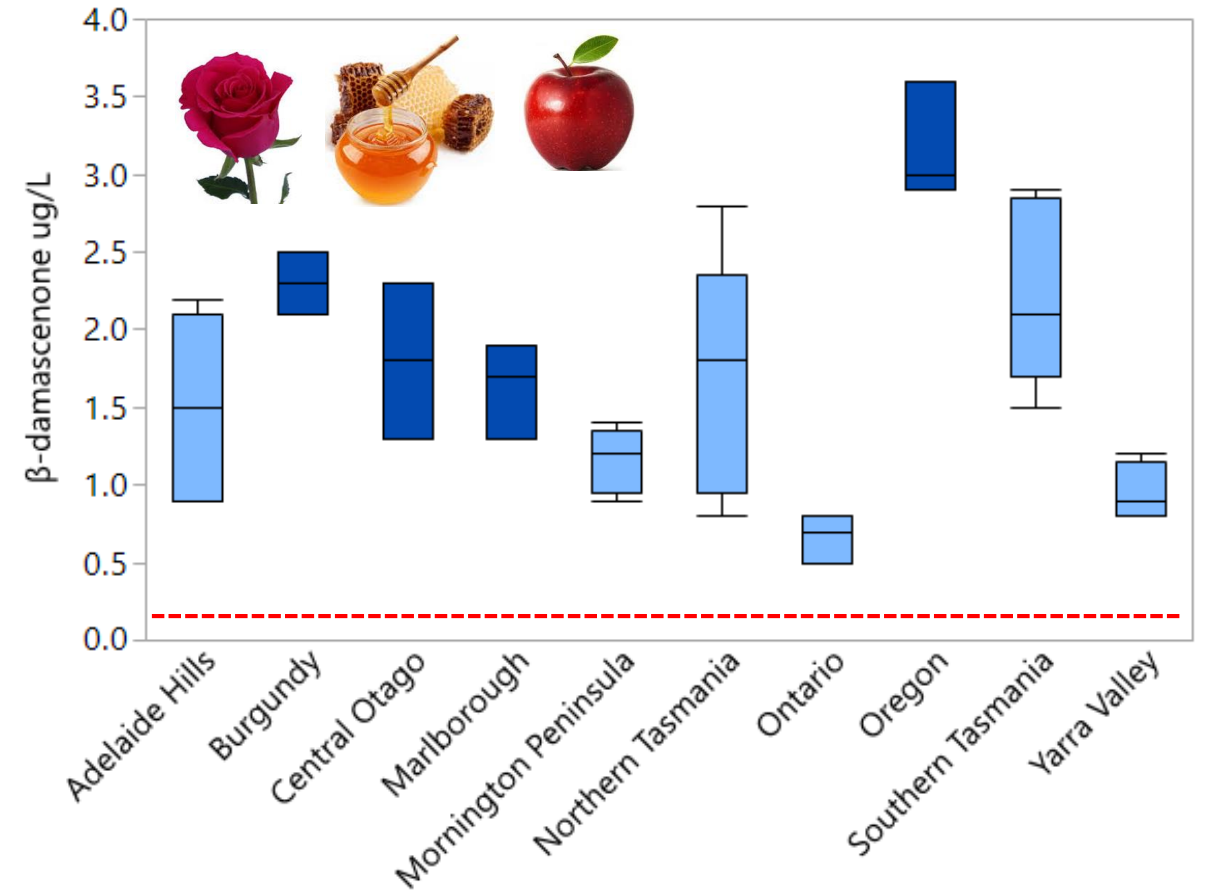
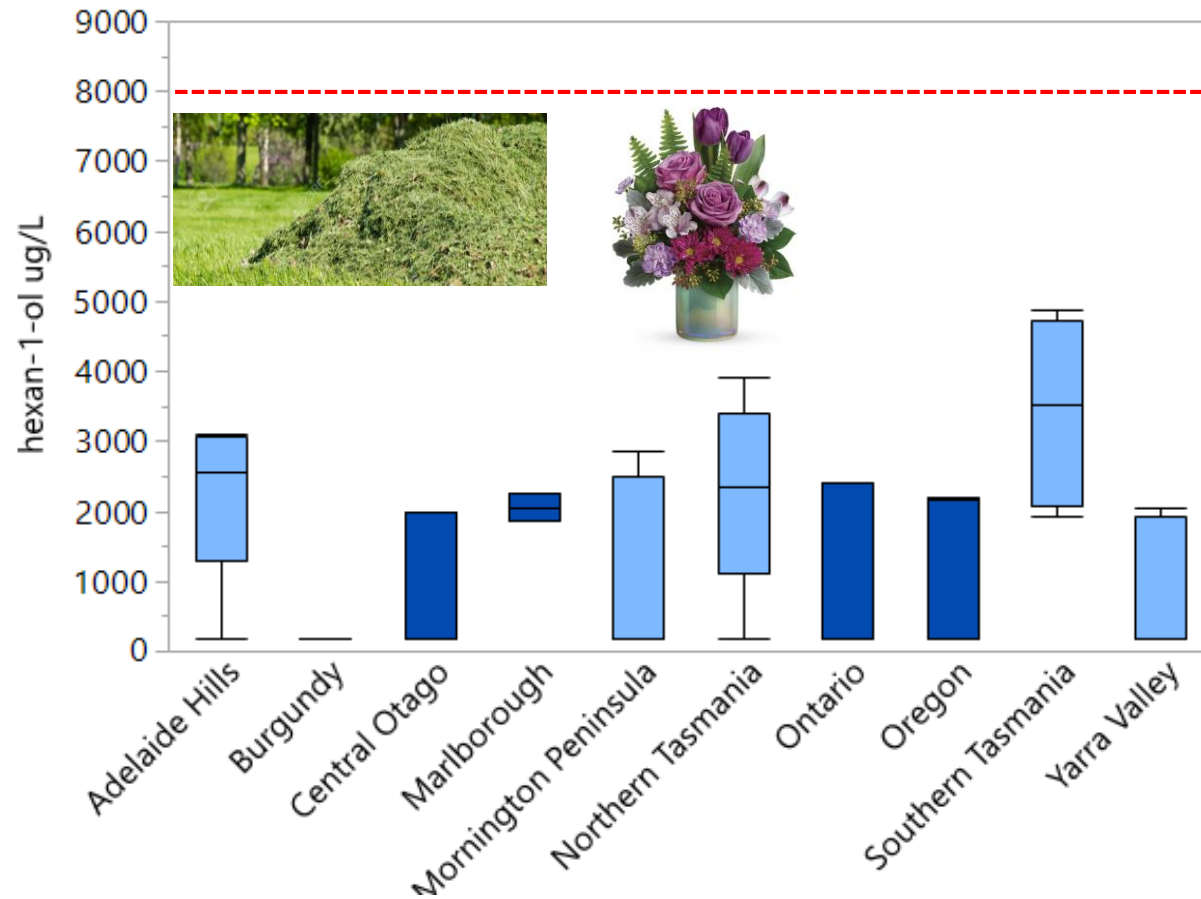


International wines (n = 3)



Odour threshold in 13% v/v ethanol solutions (Francis, I.L. and J.L. Newton, 2005)

## Aroma Analysis: Australian (n = 25) vs International (n = 15) PN 2015 wines



Australian wines (n = 5)



International wines (n = 3)



Odour threshold in 13% v/v ethanol solutions (Francis, I.L. and J.L. Newton, 2005)





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**Thank you for your attention**