



# Delayed Pruning of Grapevines

Paul Petrie TWE

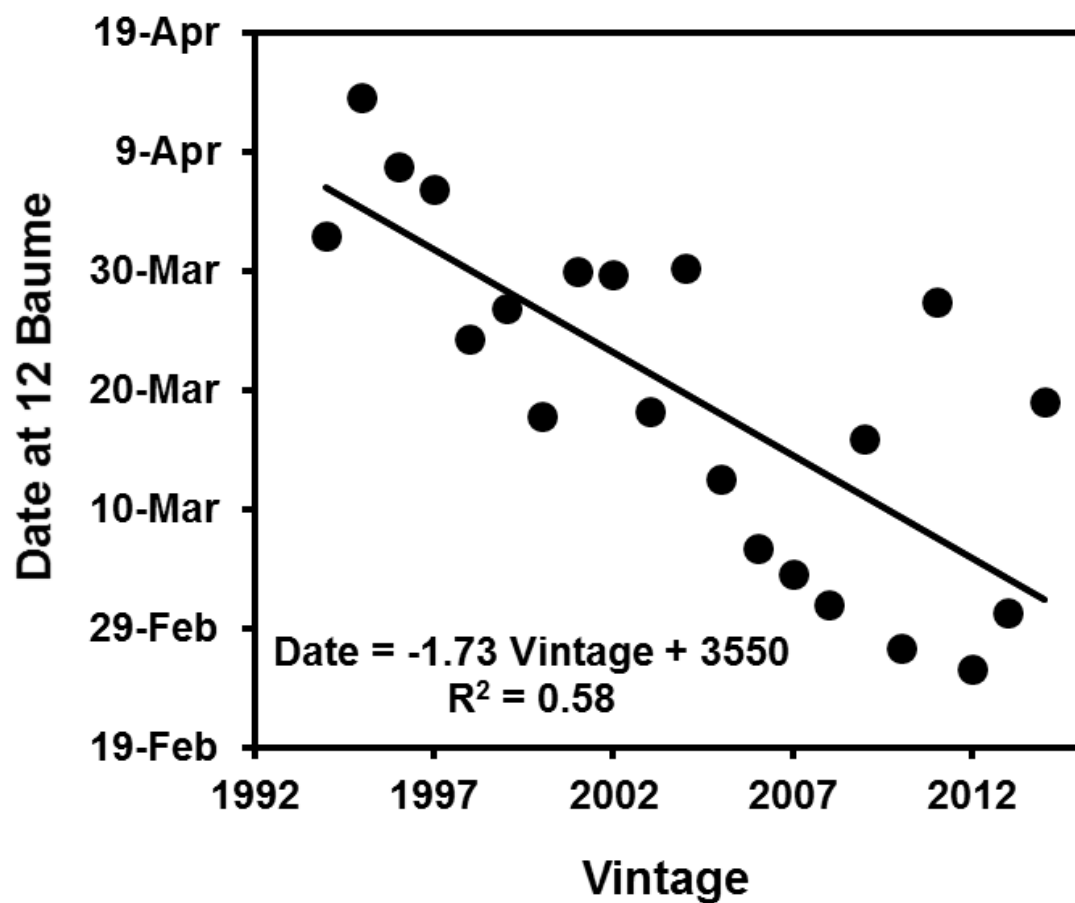
Victor Sadras & Martin Moran, SARDI



TREASURY  
WINE ESTATES



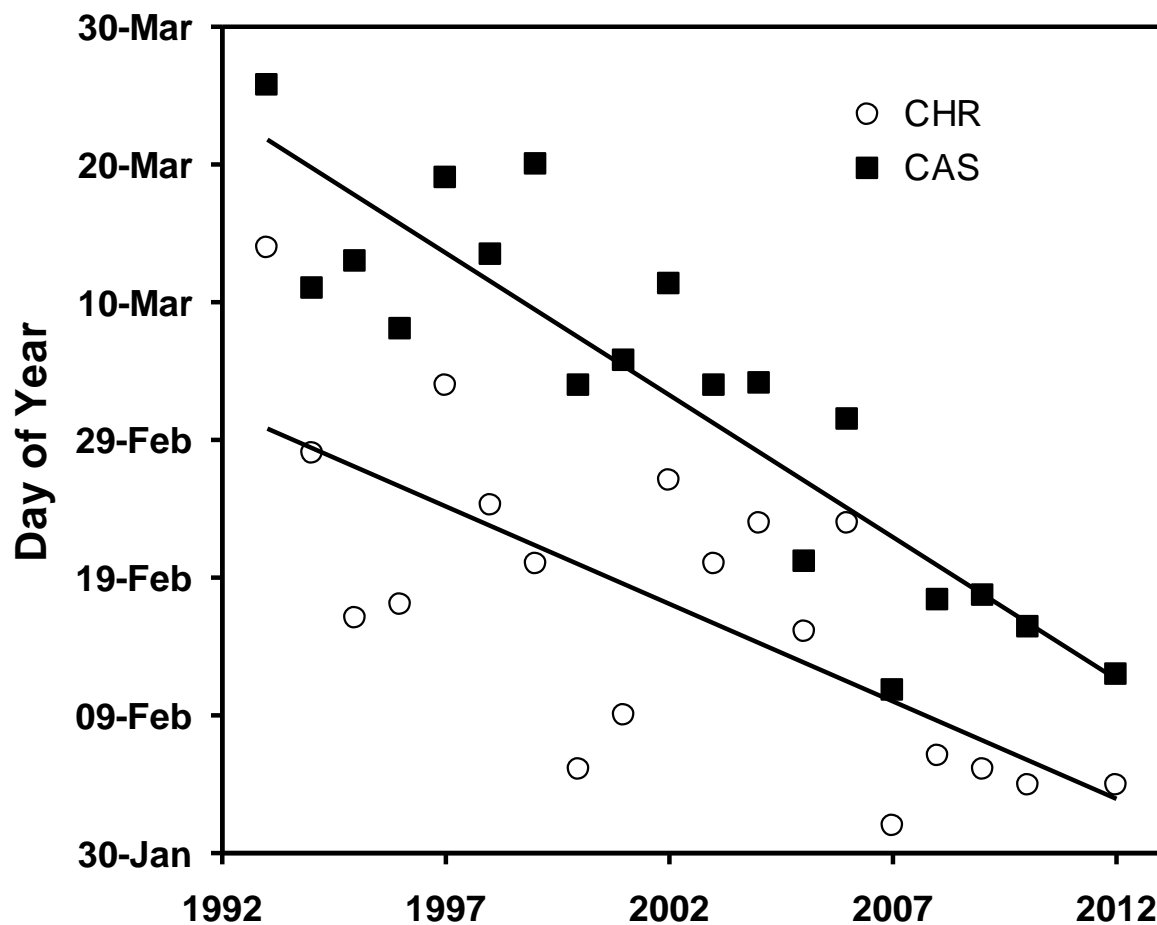
## Vintage becoming earlier



**Coonawarra Cabernet  
Sauvignon**

**1.7 Days per year**

## Vintage becoming earlier



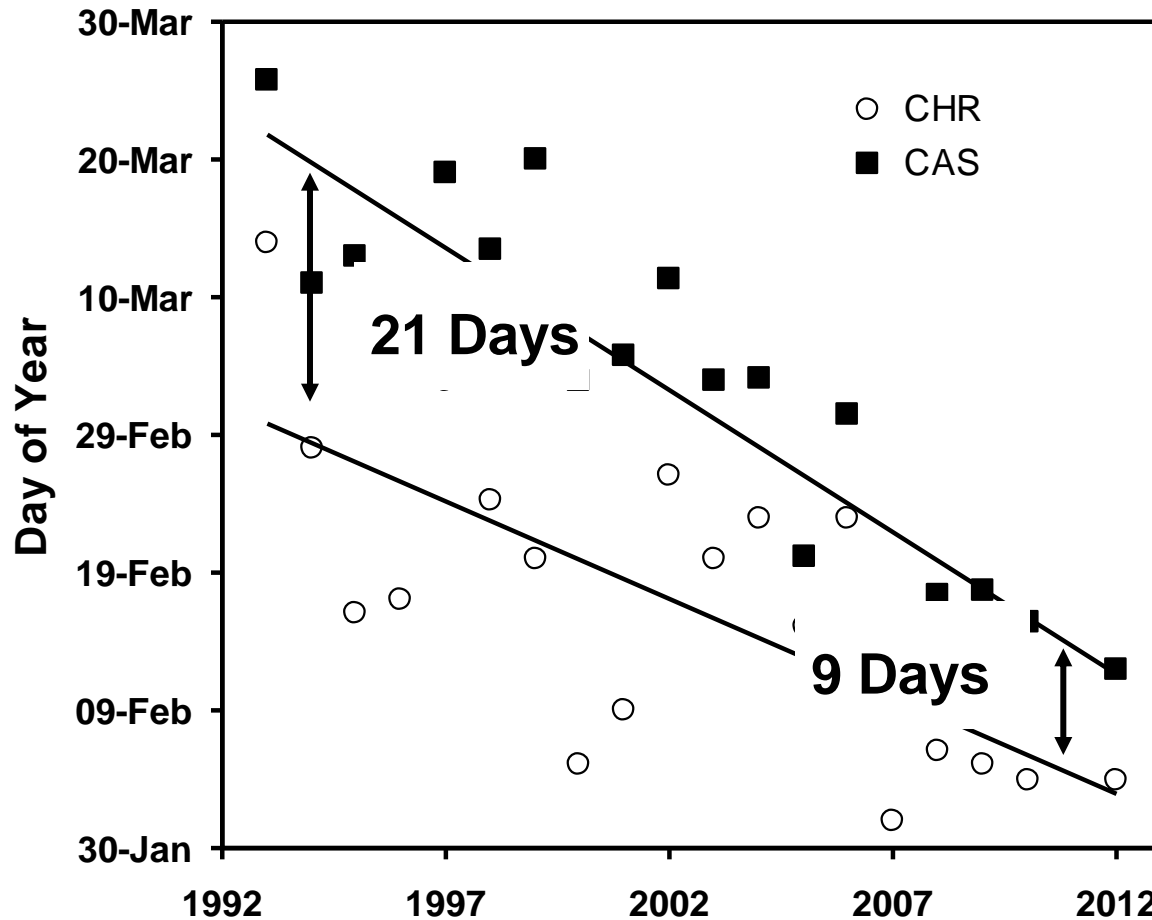
**McLaren Vale Cabernet Sauvignon**

**2.1 Days per year**

**McLaren Vale Chardonnay**

**1.4 Days per year**

# Vintage becoming more compressed



**McLaren Vale Cabernet Sauvignon**

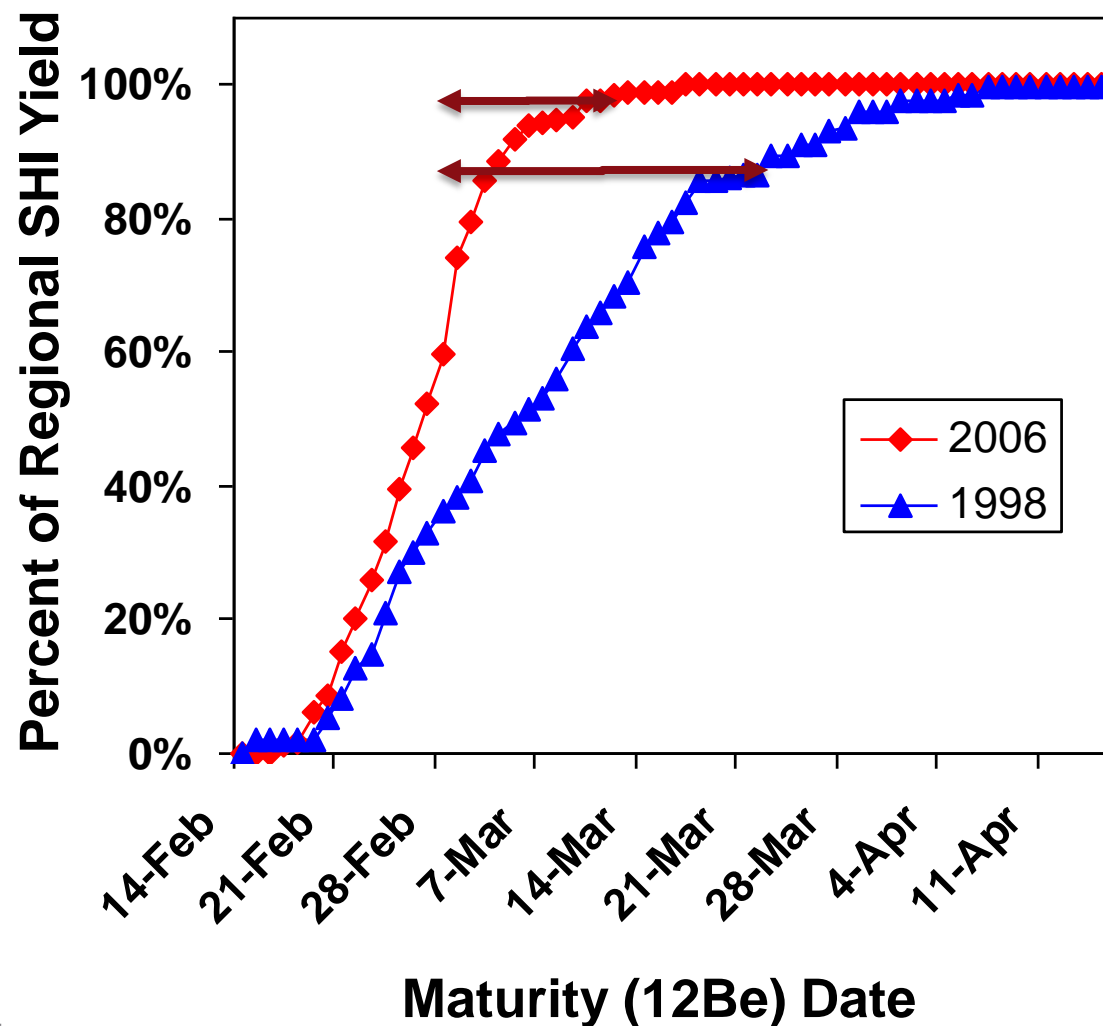
**2.1 Days per year**

**McLaren Vale Chardonnay**

**1.4 Days per year**

**Peak Demands on  
Harvesting and Crushing  
Facilities are Increasing**

## Vintage becoming more compressed



Barossa Shiraz

2006 vs 1998

Day which blocks reached  
12Be

Percent regional yield

# **By delaying maturity can we delay harvest?**

**Delay maturity into a cooler part of the season**

**Better quality?**

**Improved harvest logistics**

**Harvest at optimal time**

**Better use of facilities**

**Reduced risk**

**Extreme events i.e. heat wave**



# Adaptation strategies in the vineyard

## Year 1 delayed pruning trial



Winter



Spring



Summer



Autumn

**Standard  
Pruning**



**Delayed  
Pruning**

Can we use delayed pruning in order to delay harvest and move ripening into a cooler part of the season?

# By delaying maturity can we delay harvest?



**Unpruned 22 September (Shiraz)**

## Five Pruning Dates

26 May (early normal)

4 August (late normal)

5 September (bud burst)

22 September

18 October

No pre-pruning



# By delaying maturity can we delay harvest?



## Five Pruning Dates

26 May (early normal)

4 August (late normal)

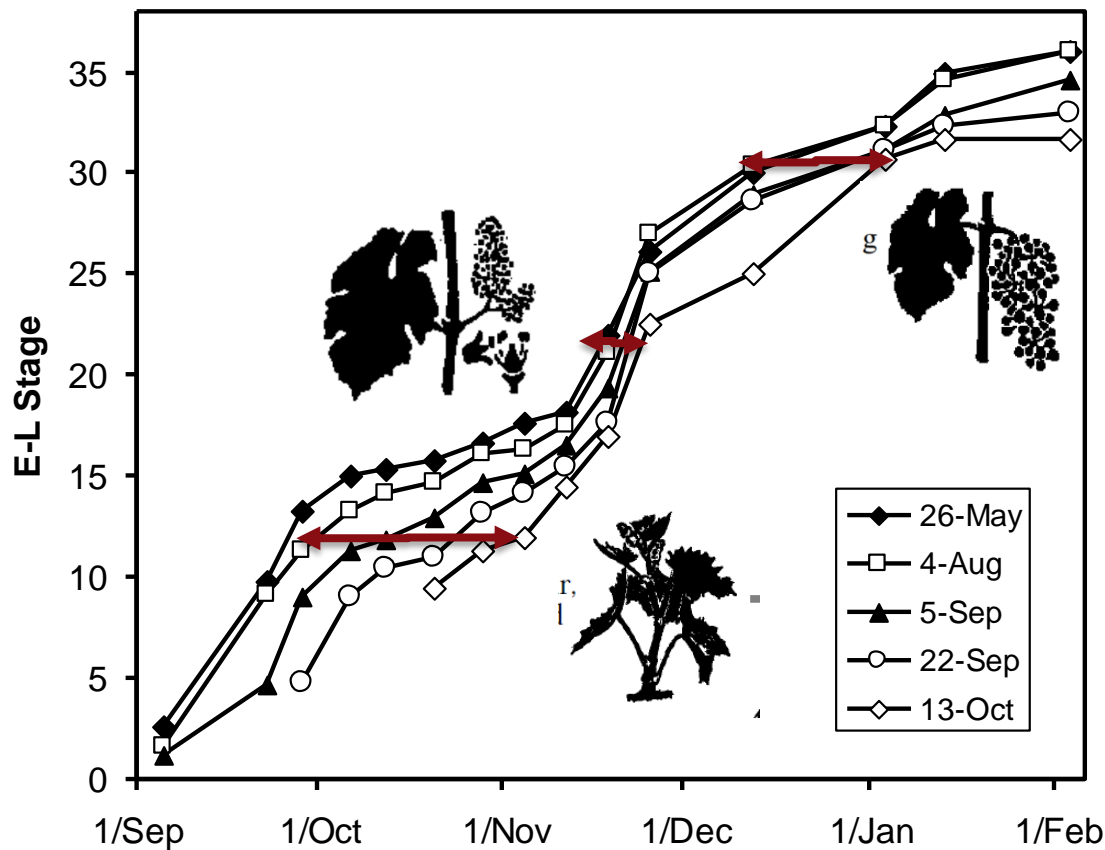
5 September (bud burst)

22 September

18 October

**Pruned 26 May and 22 September (Shiraz)**

# Tracked Phenology during the growing season



The range in phenology between the treatments varied

Smallest during flowering

Largest early and late in the season

## Tracking fruit colour at veraison (11 January)



**Pruned 26 May**



**Pruned 22 Sept**



**Pruned 13 Oct**



# Adaptation strategies in the vineyard

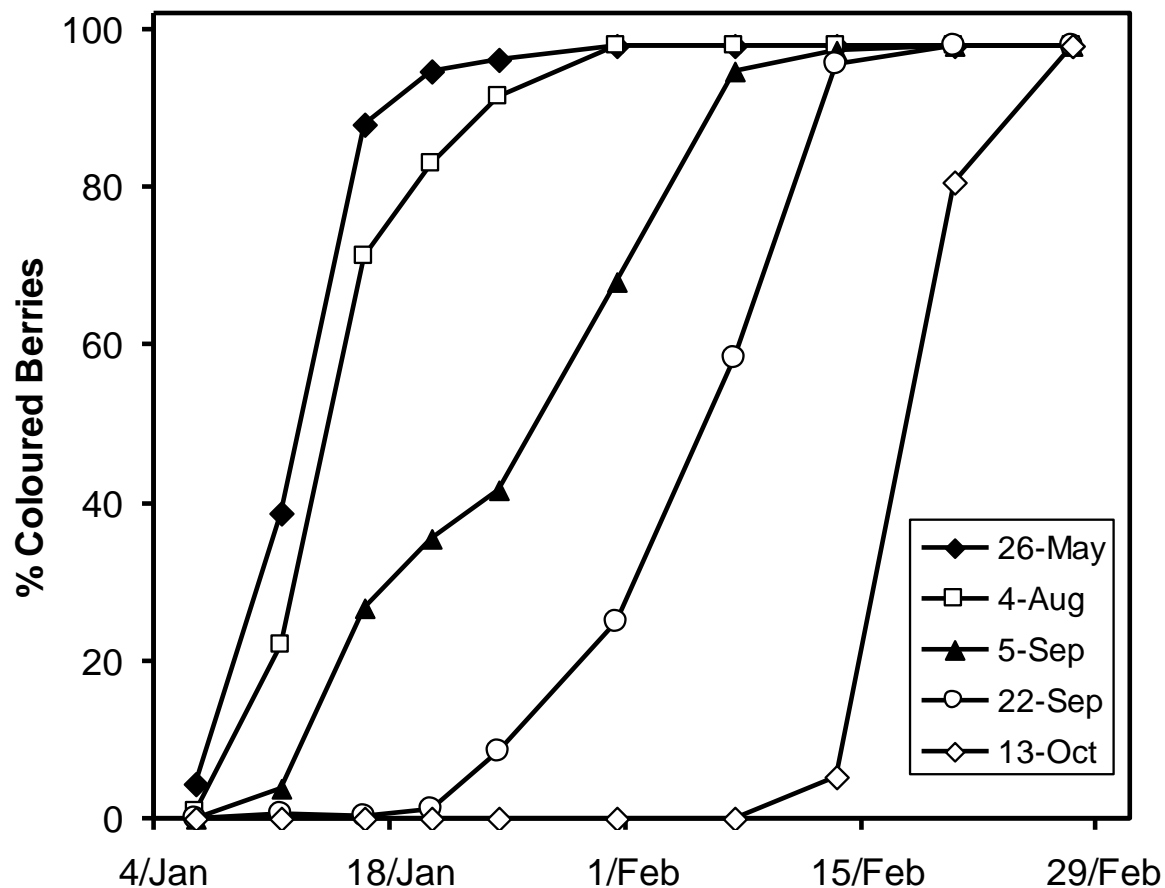
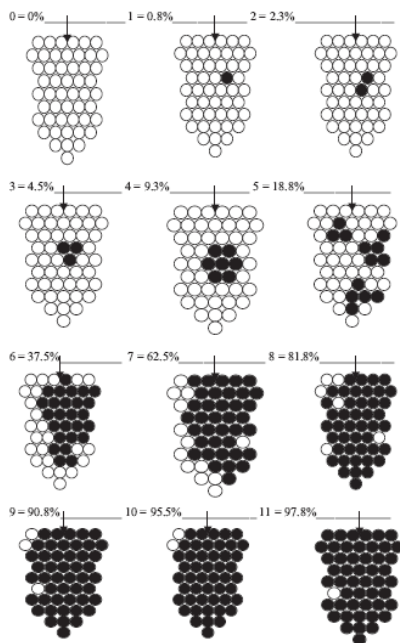
## Year 1 delayed pruning trial



# Tracking fruit colour at veraison

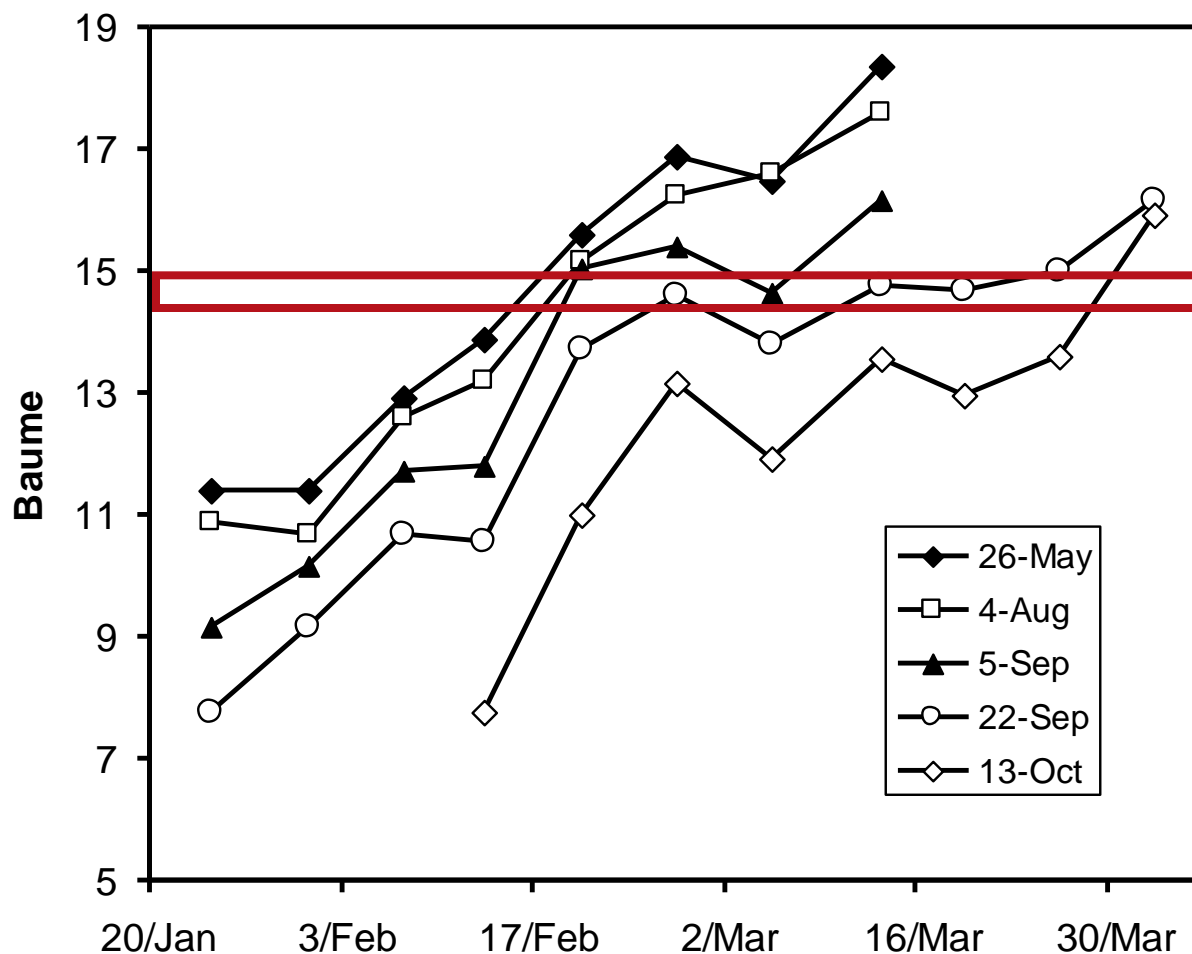
## Visual scoring

Large spread between later pruning times.





# Tracking Maturity

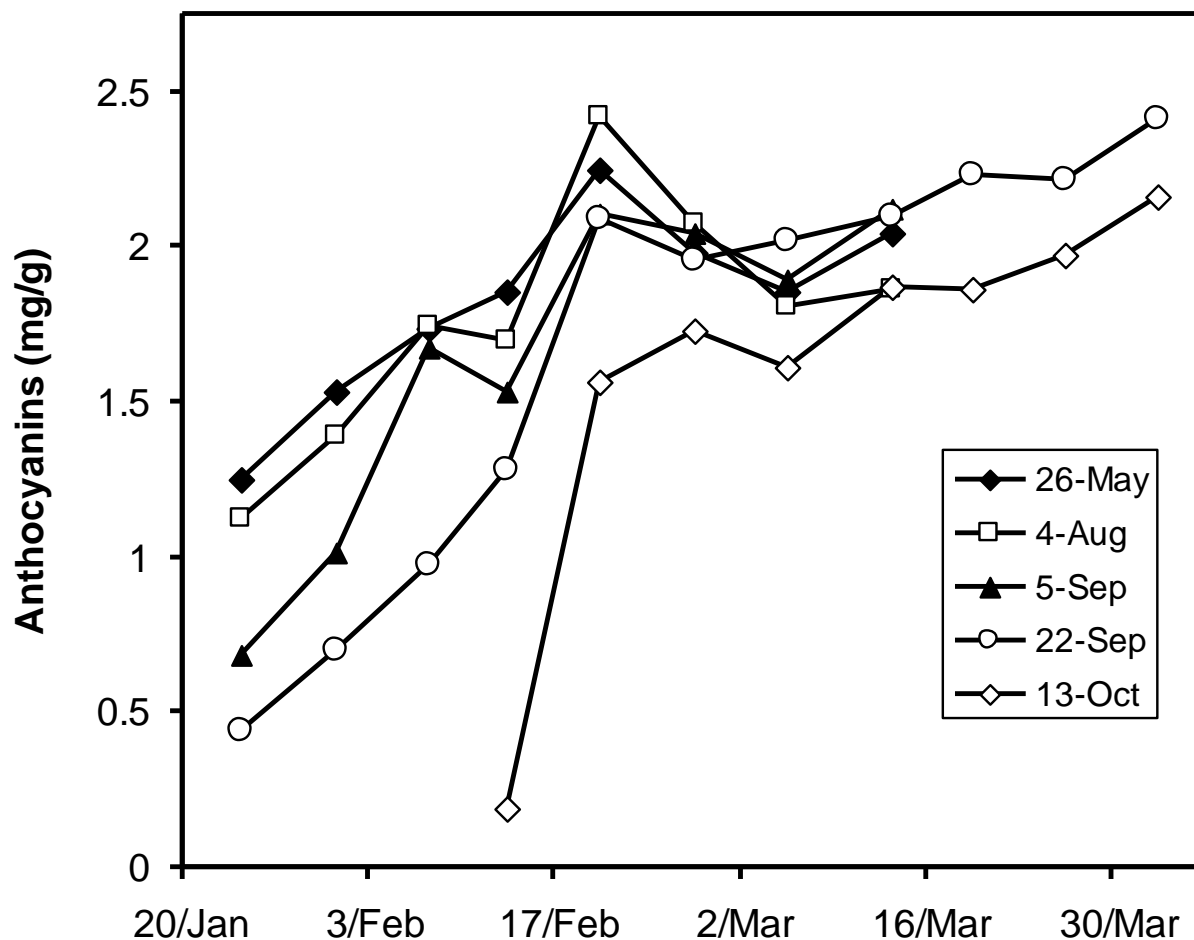


**Large spread between later pruning times**

**Earlier pruning times now closer**

**Fruit harvested about 14.5 Be for winemaking**

# Anthocyanins



Later pruning dates  
catch up

13 October is delayed

As per Iland

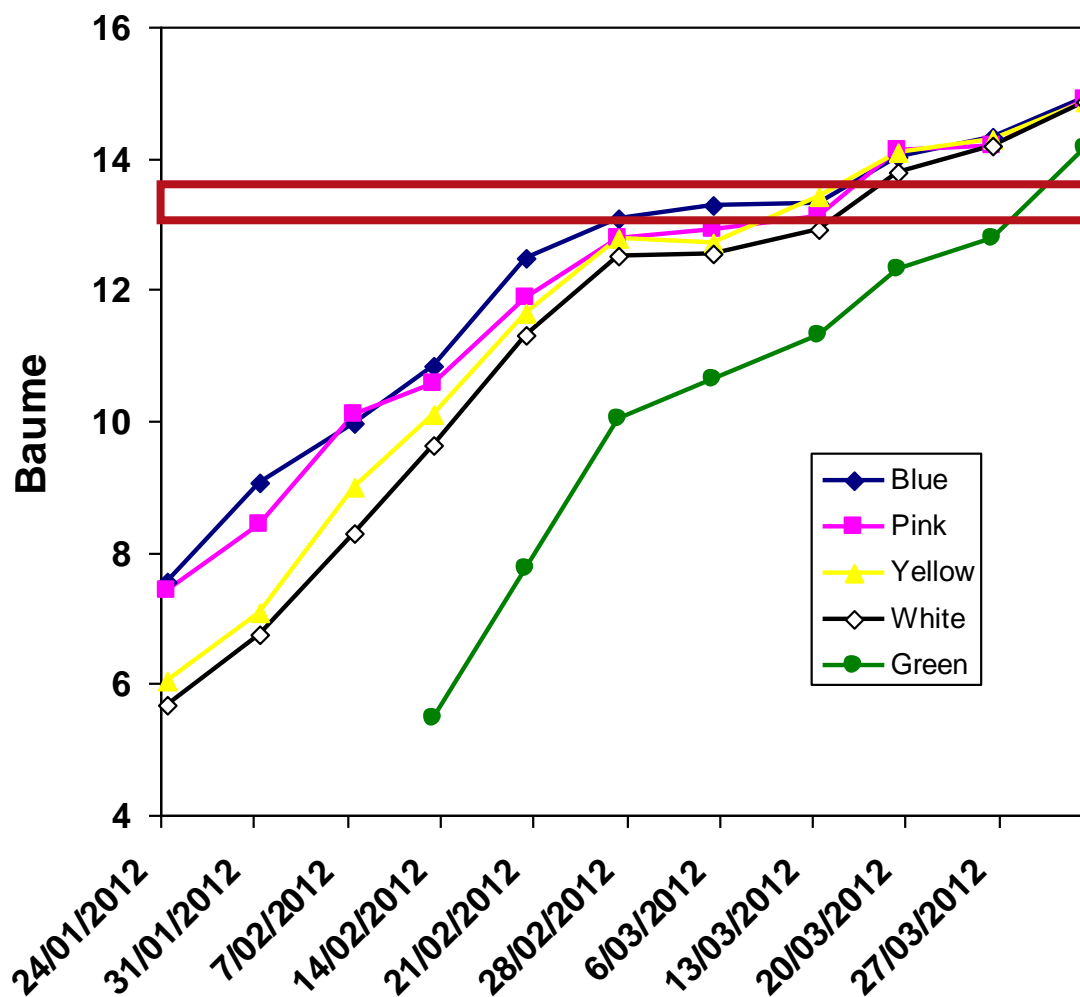
Wine quality?

## Yield components

Pruning Date	Harvest Date	Yield (kg/vine)	Bunch No	Bunch Wt (g)	Berry Wt (mg)	Pruning Wt (g)
26 May	20 Feb	3.9	64.5	51.7	1.1	1137
4 Aug	20 Feb	3.6	67.6	58.0	1.1	1161
5 Sept	28 Feb	2.6	57.3	43.8	1.0	1118
22 Sept	5 March	3.1	78.6	44.1	0.9	887
13 Oct	4 April	1.4	47.3	27.7	0.9	453

**Thinned vines yielded approximately 3kg**

# Tracking Maturity CAS



**Less spread than Shiraz**

**Earlier pruning times now closer**

**Fruit harvested about 13.5 Be for winemaking**

## Cabernet Sauvignon yield components

<b>Pruning Date</b>	<b>Harvest Date</b>	<b>Yield (kg/vine)</b>	<b>Bunch No</b>	<b>Bunch Wt (g)</b>	<b>Berry Wt (mg)</b>	<b>Pruning Wt (g)</b>
<b>26 May</b>	<b>13 Mar</b>	<b>4.0</b>	<b>61</b>	<b>66.5</b>	<b>1.3</b>	<b>2115</b>
<b>4 Aug</b>	<b>19 Mar</b>	<b>4.0</b>	<b>58</b>	<b>66.7</b>	<b>1.2</b>	<b>1836</b>
<b>5 Sept</b>	<b>22 Mar</b>	<b>6.3</b>	<b>71</b>	<b>89.5</b>	<b>1.1</b>	<b>1832</b>
<b>22 Sept</b>	<b>26 Mar</b>	<b>6.2</b>	<b>80</b>	<b>78.3</b>	<b>1.1</b>	<b>1678</b>
<b>13 Oct</b>	<b>4 April</b>	<b>3.5</b>	<b>63</b>	<b>59.5</b>	<b>1.2</b>	<b>1648</b>



## Co-authors

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## Acknowledgements

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**Brenton Porter & Sara Grafton – Anthocyanin & tannin analysis**



# Questions