



VILLA MARIA

NEW ZEALAND

Terra Vitae AGM 2016  
Seasonal Yield Influences and Irrigation



- Each year our final yields are made up of a combination of factors that culminate in the final yield.
- Predominantly dependant on the climate and vine health:
  - » Bud Burst: Carbohydrate storage and temperature
  - » Number of bunches: Previous years temperature
  - » Number of berries: Temperature over flowering
  - » Size of the berries: Seed number and available water
- Our staff then fine tune these numbers to ensure the fruit makes it through to harvest safely.

# Pruning Workshops



Goal of improving vine health and balance

## So how are we looking in 2016-17

- » Good vine health and warm spring temperatures have led to a good bud burst across Marlborough
- » Temperatures last year were close to average, meaning the number of bunches per shoot is close to average
- » We have just started flowering in Chardonnay and Pinot Noir, Sauvignon and Pinot Gris will begin in the next two weeks
- » NIWA models are suggesting neutral or La Nina status from now through to January.
  - » La Nina results in temperatures and rainfall being more likely to be above average

# So what does this mean????











- Bunch numbers are looking promising with most sections sitting at target levels
- Medium forecast is for average to above average temperatures
- Still very dependant on the precise temperatures that occur during flowering for each variety on each vineyard



VS

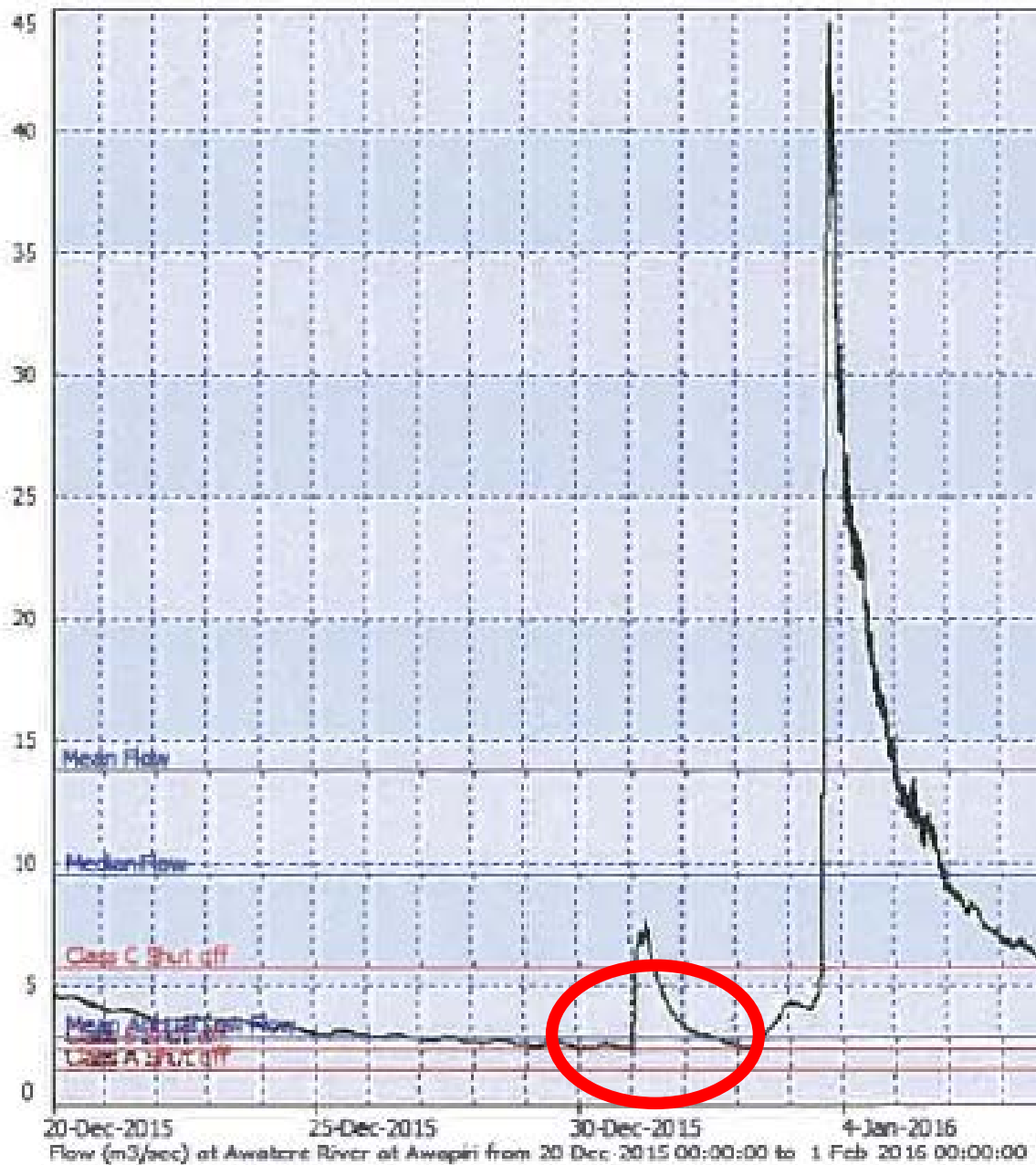


# Fingers Crossed

<b>Today</b> 27 Nov	<b>Tomorrow</b> 28 Nov	<b>Tuesday</b> 29 Nov	<b>Wednesday</b> 30 Nov	<b>Thursday</b> 1 Dec	<b>Friday</b> 2 Dec	<b>Saturday</b> 3 Dec	<b>Sunday</b> 4 Dec	<b>Monday</b> 5 Dec	<b>Tuesday</b> 6 Dec
									
<b>19°C</b> High	<b>21°C</b> High	<b>24°C</b> High	<b>21°C</b> High	<b>20°C</b> High	<b>19°C</b> High	<b>23°C</b> High	<b>22°C</b> High	<b>21°C</b> High	<b>20°C</b> High
<b>7°C</b> Overnight	<b>10°C</b> Overnight	<b>9°C</b> Overnight	<b>11°C</b> Overnight	<b>9°C</b> Overnight	<b>9°C</b> Overnight	<b>10°C</b> Overnight	<b>11°C</b> Overnight	<b>10°C</b> Overnight	<b>11°C</b> Overnight
Fine. Gusty northwesterlies.	Fine with northwesterlies.	Mostly sunny. Northwesterlies picking up.	Mainly fine. Light winds.	Mainly fine. Light winds.	Partly cloudy at first then rain. Light winds.	Showers with little wind.	Partly cloudy with light winds.	Rain with light winds.	Partly cloudy with northerlies.

- » During peak use each vine can require 8 litres per vine per day
- » This from December through to the end of February
- » Seddon and Taylors Pass have approximately 700,000 vines
- » That's 5,600,000 litres per day!!!
- » Taylors Pass and the Gimblett Gravels are very free draining, Seddon has more top soil, however these soils overlay a alluvial layer and can also dry out. Hence irrigation is very important to maintain vine health and yield potential

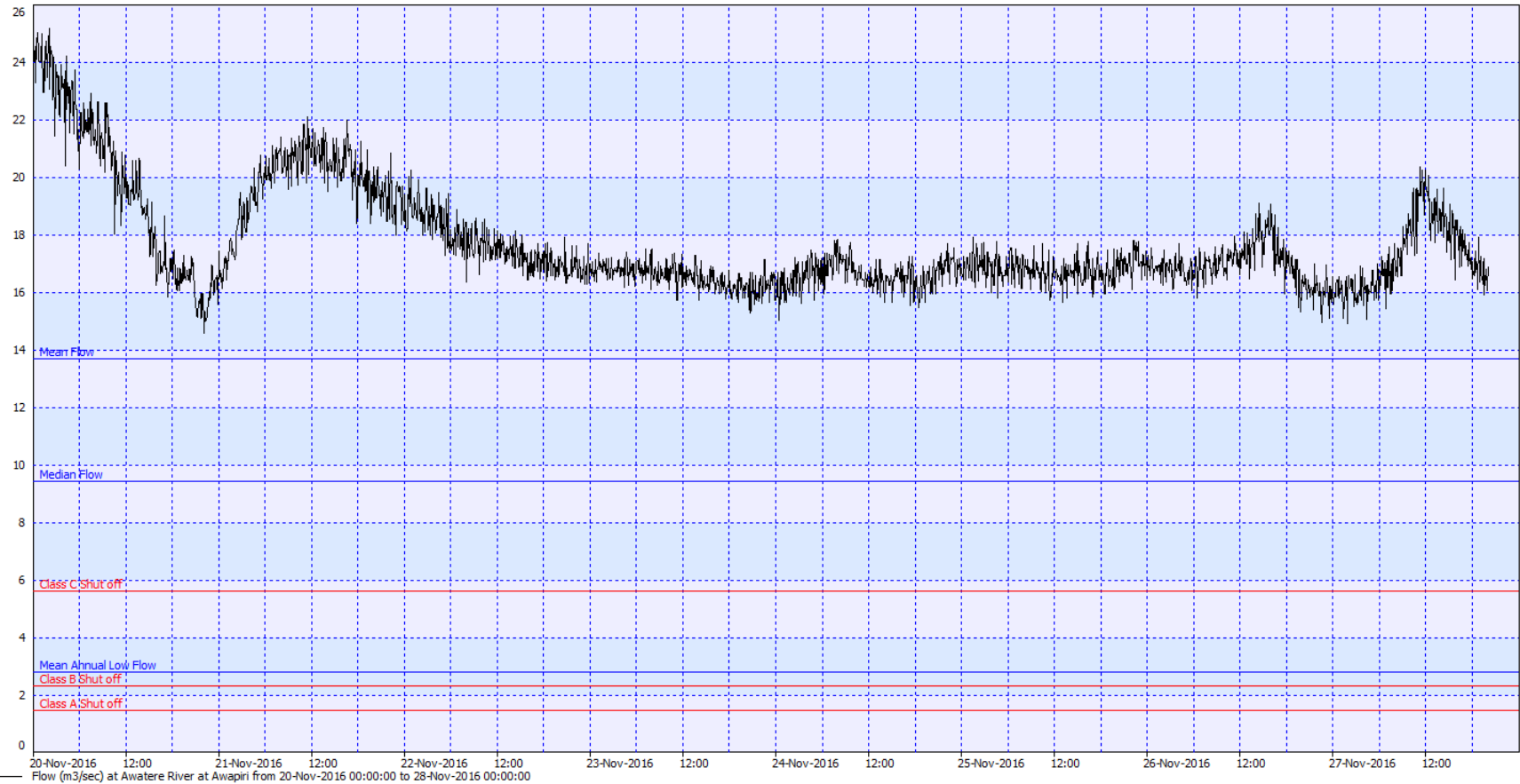




Flow (m<sup>3</sup>/sec) at Awatere River at Awapiri from 20 Dec 2015 00:00:00 to 1 Feb 2016 00:00:00



# Current River Level



But too dirty!!!!

- » Management practices
  - » Smaller canopies
  - » Smaller yields
  - » Less competition (weeds/mid-rows)
  
- » Storage
  - » 45 days of water storage is approximately 720 m<sup>3</sup> per hectare
    - » Seddon: 165,600 m<sup>3</sup>
    - » Taylors Pass: 54,000 m<sup>3</sup>
  
- » IF we were to have a significant drought storage would significantly reduce the risk of a reduced volume and quality of crop.

