*What are the consequences of the drought induced reduction in the 2007 Australian winegrape harvest? Are recent bulk wine price increases sustainable in light of our planted vineyard area, or are we experiencing a false dawn ahead of a terror stretch for the industry yet to come? **Jim Moularadellis** of Australia's leading bulk wine broker, Austwine, analyses the key aspects of the bulk wine market following the 2007 vintage.*

2007 post-vintage bulk wine review: Growers seek rain for reverse of fortune

The latest wine industry estimate is that the 2007 Australian harvest was 1.419 million tonnes which was 25% down on 2006. This outcome is higher than previous estimate of 1.34mt. To some, the new, slightly higher estimate, may come as a surprise because anecdotal evidence we have received suggested that crops could be down 30-50%, with isolated reports of much greater reductions. We also received comments from many market participants who expected a much smaller national crop based on their own local experiences. The exceptions seem to be a few counter cyclical players selling into the present market strength.

Reds grapes accounted for 48% of the crop (last year 55%), despite being down 35% on last year. White grapes accounted for 52% of the crop (last year 45%) and were down 14% from last year. Nevertheless, the crop was down significantly from last year, and in light of this, I suggest the following top five outcomes are likely in the short term:

- **Less bulk wine inventory.** From 2004–2006 industry has three very large and consistent vintages, all within about 1% of 1.9mt, leading to excessive bulk wine inventories. During this time Austwine's inventory levels fluctuated between 100-120mL. Presently it is about 70mL and it has been since about the start of vintage.
- **Higher prices.** The lower inventory level resulting from a smaller crop has lead to higher prices for bulk wine – doubling in some instances – and higher grape price expectations for 2008. Industry has also witnessed an expansion of the pricing premium normally associated with cooler climate grapes and wines, hopefully to more sustainable levels. In due course we can expect to see these impacts flow through to a reduction in retail discounting: $2 per bottle will become much harder to get, cleanskin proliferation will reduce, as will buy-one-get-one-free (BOGOF) deals, which have been particularly prevalent in United Kingdom (UK) supermarkets in recent years.
- **Reduced export volume growth**. FOB unit values will stop falling and probably rise, leading to a reduction in volume growth of exports which is most likely to occur at the bulk, lower value end.

Table 1.

Country/Region	Variety	Indicative EX Works Price per litre
Chile	Cabernet Sauvignon	US$ 0.40
Argentina	Malbec	US$ 0.35
South Africa	Pinotage Shiraz	€ 0.50 € 0.50
Spain	Dry Red Tempranillo	€ 0.35 € 0.45
South of France	Chardonnay	€ 0.55

- **Increased imports.** We expect to see an increase in wine being imported in order to meet price points for wine sold in soft packs, and perhaps to replace the hitherto locally sourced cleanskins and wines that are retailing for as little as $2 a bottle. There are many sources of such wine and Table 1 shows a selection of international (very approximate) indicative present bulk prices from various regions:
- **Continued profitability squeeze**. For grapegrowers and winemakers it will be a challenge to remain viable. Grape prices rose for the 2007 harvest, from a generally unprofitable and unsustainable base, but did not increase enough to cover the reduced cropping levels, leading to further poor farm viability. Bulk wine prices also increased, but reduced volumes through wineries meant that unit production costs also increased, in some cases, quite significantly.

Bulk wine market overview

The short crop in 2007 has led to increasing wine and grape prices and withdrawal of bulk wine from the market place. This is primarily because of the uncertainty associated with the outlook for rainfall, irrigation water licence allocations and, in turn, the likely availability of grapes from 2008 vintage. Therefore the key issue that winemakers are presently grappling with is: How long do I have to make my existing bulk wine stocks last?

The 2007 vintage, being only 75% of the past three years' average, has resulted in a marked increase in the bulk price in recent ▸

Fig. 1. Domestic brokerage transactions Austwine sales volumes.

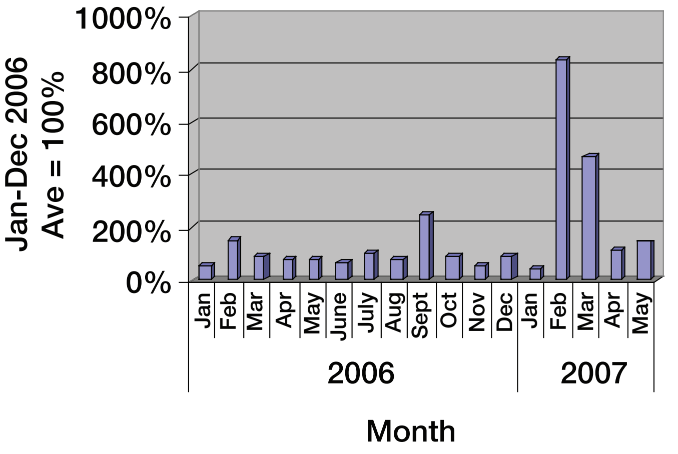
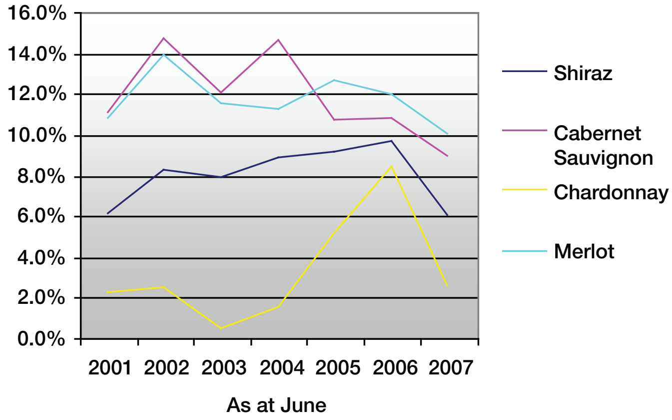


Fig. 2. Bulk wine inventory as a percentage of current vintage year crush.



months. Prices started rising late last year, driven mainly by one of the larger companies moving briskly into the market, contracting bulk wine and grapes from 2007. And they bought large volumes at good prices, so this set the market price. The next uplift in pricing occurred when vintage started in February. Big volumes were traded during that month – more than 800% of the average monthly volume and more than the seven months immediately prior combined. Sales occurred across a broad range of buyers and sellers. As harvest started and grape deliveries came in short, wineries bought bulk wine to cover their requirements.

Sales volumes have retreated rapidly back to their more normal levels in the months since February: Figure 1 clearly illustrates this, and also provides a good comparison of sales volumes that we have traded since the beginning of 2006. Nevertheless, there was some continued upward pricing pressure with Prime Minister John Howard's announcement on 19 April 2007 that, without substantial rain, irrigation water licence allocations in the Murray Darling basin will start at zero from 1 July 2007.[4]

Since that time we have received some mixed signals of pricing direction in the bulk wine market.

Bulk wine inventory round up of the top four varieties

For each of the four big varieties of Australian wine production, in descending order of importance, the change in tonnes crushed from 2006 to 2007[1] is compared to the change in Austwine bulk wine inventory [5] across the same period. All price range indications are ex-works for spot domestic sale of average grade wine, for immediate delivery with short payment terms.

In each case, Austwine inventory fell significantly more than the relative fall in grape production. This exaggerated change in our inventory levels is consistent with the market of surpluses and shortfalls that we operate in. We have seen winemakers withdraw parcels due to the uncertainty associated with the 2008 crop size whilst trying to figure out how long they have to make their existing stocks last.

Chardonnay

National tonnes crushed fell 8% this year to 395,000t, compared with a fall in Austwine bulk wine inventory of 72%. Present Austwine bulk inventory is just 7mL, which I suspect is very understated given the relatively modest reduction in crop size from last year to this year. For the first time, Chardonnay became Australia's most prolific wine grape variety, exceeding the next largest, Shiraz, by 100,000t. Present vintage commercial quality inland irrigated Chardonnay ranges from $1-$1.40/L.

Shiraz

National tonnes crushed of Shiraz fell 36% this year to 293,000t, compared with a fall in Austwine Shiraz bulk wine inventory of 58% to 13mL. Present prices for current vintage commercial quality inland irrigated Shiraz ranges from $1.10-$1.50/L.

Cabernet Sauvignon

National tonnes crushed fell 36% this year to 187,000t, compared to a fall in Austwine bulk wine inventory of 45% to 12mL. Present vintage commercial quality inland irrigated Cabernet Sauvignon ranges from $1.10-$1.50/L.

Merlot

National tonnes crushed fell 29% this year to 96,000t, compared to a fall in Austwine bulk wine inventory of 39% to 7mL. Present vintage commercial quality inland irrigated Merlot ranges from $1.10-$1.50/L.

Comparison of the major varieties

Figure 2 plots bulk wine inventory as a percentage of present vintage tonnes crushed for each of the top four varieties. It provides a neat summary of the relative supply position of each.

The outlook for 2008 vintage

Risking crude oversimplification, the outlook for 2008 vintage has two broad possibilities. Each depends on the amount of rain that falls during this Winter and Spring.

If we experience below average rains, then the outlook is indeed ▸

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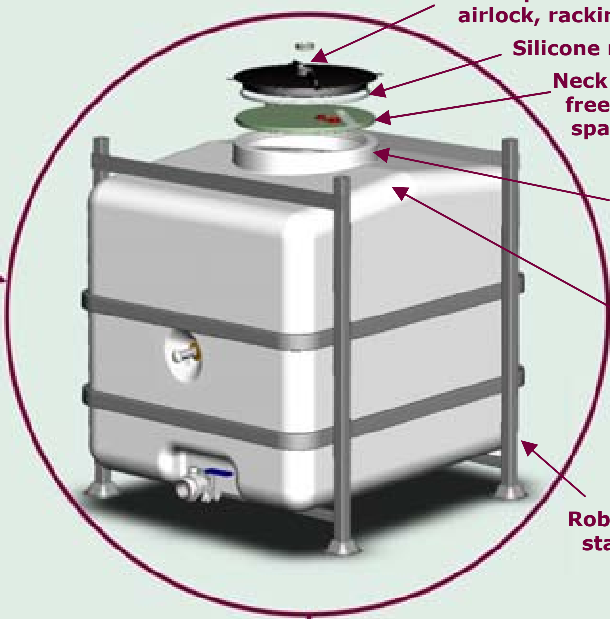

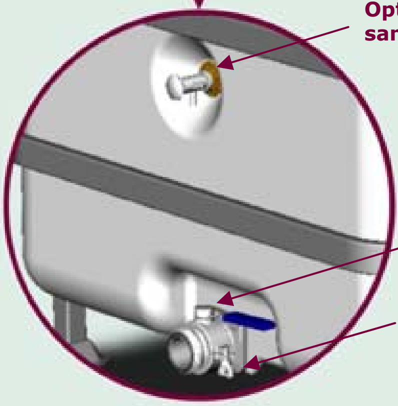

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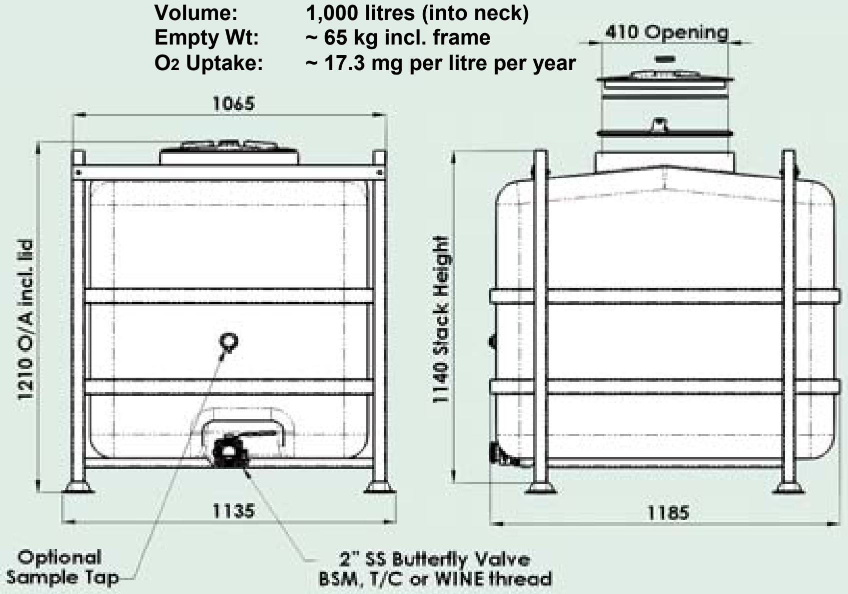

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Ferment vent option: threaded bush & tank airlock valve

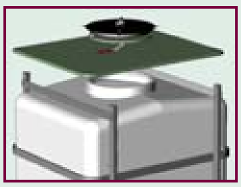

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Table 2.

Grape Crush '000 Tonnes (% Change)	1982/3 Drought	1994/5 Drought	2002/3 Drought	2006/7 Drought
Drought year minus 1 year	499	777	1,606	1,902
Drought year	440 (-12%)	630 (-19%)	1,399 (-13%)	1,419 (-25%)
Drought year plus 1 year	519 (+18%)	883 (+28%)	1,917 (+37%)	?

Table 3.

Major Storage	Capacity (GL) [c]	Current Storage Level (GL) [c]	Current Storage Level (%)
Dartmouth [a]	3,906	475	12
Eildon Reservoir [b]	3,390	215	6
Hume [a]	3,038	222	7
Menindee Lakes [a]	1,731	99	6
Blowering Reservoir [b]	1,631	256	16
Burrinjuck Reservoir [b]	1,026	252	25
Lake Victoria [a]	677	243	36
Total Selected Storages	**15,399 GL**	**1,762 GL**	**11%**

[a] Murray Darling Basin Commission Storages; [b] Major State Storages; [c] By way of comparison, Sydney Harbour is 500GL

quite grim. Low rainfall, together with severely restricted irrigation water allocations for all agricultural activities, is likely to lead to a very small grape crop indeed. This will be accompanied by very low or negative vineyard and winery profitability, despite a scramble for very limited grapes.

If we experience average or above average rains then the outlook is better. Under such a scenario, irrigation water allocations would be sufficient (more likely) or not restricted at all (less likely). Broad anecdotal consensus from industry players appears to be that the size of the 2008 vintage will be constrained at best. The main reasons sighted appear to be vines will take an extra year to recover from frost inflicted damage that occurred to vine buds last spring and lower vine carbohydrate levels, because of drought induced stress, will also conspire to restrict the size of next year's crop.

I initially subscribed to this line of thinking, but most of the frost damage occurred in the regions which account for a relatively modest share of grape production. The large warm inland areas, which produce 60% of Australia's grapes, escaped the 2006 spring frosts relatively unscathed.

But more importantly, a review of the past three droughts in south east Australia and the vine responses after the rains came tells a different story. In all cases wine grape production in the year following the drought exceeded not only the drought year, but also the year prior to the drought. Details are tabulated in table 2. [6]

Of course, there are a myriad of other factors that will influence the size of the 2008 grape crop. The above analysis is also simplistic. For example, what was the impact of irrigation water restrictions that were in place for 2006/07, but not in previous droughts? What was the impact of newly established plantings on the outcome in 2002/03?

But if average or above average rain falls this winter and spring, then it might be a bit premature to write off 2008 as constrained or small.

So a lot depends on rain, and, if you push me for a recommendation, it would be hedge your bets. During the early 1990s I worked for Australia's largest gold mining company where the philosophy for the selling of gold production was half at spot, half into forward contracts. This same philosophy would hold both buyers and sellers in good stead over the next 6-12 months. Sell (or buy) half of what you need now and let the rest swing pending the outcome of winter/spring rains.

Now, let's take a look at the water situation.

Drought, water and rain outlook

The present drought sequence is now longer than the previous worst dry sequence, which occurred from 1936 to 1946[7] . Furthermore, the 12 month period to March 2007 is the driest 12 months for the River Murray in 115 years of inflow record keeping.[8] This has resulted in extremely low water storage levels throughout the Murray Darling Basin.

Snowy Scheme water storages were presently at their lowest May level since the scheme was completed in 1973 and the main water storage of the scheme, Lake Eucumbene, with a capacity of 4,789GL or nine times Sydney Harbour, is at it lowest level since construction. Overall Snowy Scheme storages are currently at just 8% of capacity.[7]

Further downstream, the major storages in the Murray Darling are also very low. Table 3 shows the selected major storages, which show storages at just 11% of capacity. [9]

On 19 April 2007, John Howard announced that, in the absence of significant rainfall within six weeks, initial irrigation water licence allocations in the Murray Darling Basin for the year commencing 1 July 2007, would start at zero. This would apply to any agricultural activity, with the only exception being water for basic human consumption.

Since then, until the time of writing, [10] there have been 3 significant rain events across south eastern Australia that occurred during the following approximate dates:

- 26-29 April
- 17-18 May
- 28-31 May

These rain events indicate a breakdown of the El Nino effect, which has been a significant contributor to the extremely dry conditions to date, but there is a long way to go. [11] For example, because of the extremely dry soils in the catchment areas, inflows into the River Murray system were still only one sixth of the long term average for May, [9] despite average to above average rains across most of Murray Darling Basin that occurred during the month. The good news is that the catchments areas are now sufficiently wet to generate reasonable inflows after any further significant rain events.

But it will have to be a very wet year (a one in 10 chance) [8] in order to raise storage levels to near average levels. The outlook for total winter rainfall (June to August) shows no strong swings in the odds towards either above-normal or below-normal rainfall. The chances of at least average rainfall are relatively close to 50%.[12]

So it is likely that it will rain, but that it will take a number of years before storages recover to long term levels, therefore water scarcity and restrictions to irrigation water allocations are likely to continue to be a fact of life.

Summary and conclusions

So what does all this mean? A few key points are offered by way of summary and conclusion:

- Less bulk wine inventory, higher prices, lower export volume growth, increased import demand and a continued profitability squeeze have been the distinguishing feature since the drought and frost affected 2007 vintage.
- Low rainfall this winter will reinforce the above trends, whereas average to above average rainfall will mitigate them. The ▶

consensus seems to be that 2008 will be a modest vintage in any event, but I don't necessarily agree, based on a pretty rudimentary analysis of the past three drought periods during the past 25 years.

- Some media commentary has suggested that the wine cycle might have bottomed. I am pretty sure it hasn't, rather, the short vintage will ultimately put even more pressure on industry participants:
  1. In the past few months we have experienced higher, more sustainable pricing, which on the face of it is positive, but sooner or later the existing vineyard area is going to yield us a 2mt crop.
  2. Furthermore, the 40% of vineyard production that is planted in cool climates is still trying to squeeze into the 20% of market opportunity where such wine can be sold at sustainable prices.

Putting aside for a moment the possibility of a permanent reduction in vineyard area because of continued drought, very severe water allocation restrictions, or market participants exiting the industry, both the above realities have not fundamentally altered for the past several years.

With more sustainable prices, we will in fact miss price points, lose sales volumes to competitor wine producing countries, and be stuck with a huge inventory (again!) if and when the drought does break. The longer the drought lasts, the higher prices will go and the bigger the pain we will suffer when the drought does break.

Our industry has come though some pretty difficult times in recent years, and the possible outcomes detailed above could make our journey even more difficult, particularly with so many industry participants facing financial exhaustion.

Jim Moularadellis is the principal of Austwine, Australia's largest specialist bulk wine brokerage firm. He has recently been named 2007 Entrepreneur of the Year Finalist by Ernst & Young.

This year Austwine will celebrate 300 million litres in bulk wine transactions since Jim joined the firm in 1998. He can be contacted on +61 (0)8 8363 5188.

References

[1] Winemakers Federation of Australia: 2007 WFA Vintage Report, June 2007.

[2] Australian Wine & Brandy Corporation, Harvest Update, April 2007.

[3] I have used the same classification and nomenclature employed by AWBC: "warm inland" is defined as the growing districts along Australia's major rivers (SA Riverland, River Murray Valley in NSW & Vic and NSW Riverina) and "cooler climate(s)" is defined as all other regions.

[4] Prime Minister's Media Release, 19 April 2007.

[5] Bulk Wine Availability Database, June 2007, Austwine

[6] 2005-2006 Annual Report, Australian Wine & Brandy Corporation.

[7] Snowy Hydro Ltd, Snowy Scheme Water Storages Update, 11 May 2007.

[8] River Murray System - Drought Update No. 7, Murray Darling Basin Initiative, April 2007

[9] River Murray Water, Murray Darling Basin Commission, 1 June 2007.

[10] 8 June 2007.

[11] The Weather Channel, Broadcast, 29 May 2007.

[12] National Seasonal Rainfall Outlook: Probabilities for Winter 2007, National Climate Centre, 22 May 2007. ■