

Paul Miller and Associates

ABN 28 357 993 156

50 Middlesex Road

Surrey Hills

Victoria 3127

Australia

Phone/Fax +61 3 9830 0519

Email hortempm@bipond.com

Mobile +61 412 854 974

ANNUAL VITICULTURAL REPORT

2010/2011 FINANCIAL YEAR

The Barossa Vines Limited (BVL) Vineyards:

August 31 2011

Including:

Lyndoch Vines Projects Nos. 1 & 2 Yaldara Drive, Lyndoch, South Australia (SA)

Greenock Vines Project, Greenock, SA

Rosedale Vines Projects 1, 2, 3, and 3 Stage 2 Rosedale, SA

Barossa Vines, 2004/2005 Project at Rosedale, SA and on the land known as Waltons, Seppeltsfield, SA

Barossa Vines Project 2006 on the land known as Waltons, Seppeltsfield, SA and on the land known as BVL Sturt Highway Block, Daveyston, SA

Barossa Vines Project 2007 on the land known as BVL Sturt Highway Block Daveyston, Eckermann Road Block Rosedale and Gomersal Road Block Sheoak Log, SA

Barossa Vines Project 2007 for 2008 growers on the land known as Gomersal Road block She Oak Log and Zerk 1 block Rosedale, SA

Report for:

Barossa Vines Ltd

266-268 Payneham Road

Payneham

South Australia 5070

Following recent visits to the Barossa Vines Ltd (BVL) vineyards this report has been prepared for the purposes of commenting on the general viticultural status of the (BVL) vineyards.

Table of Contents

1. Introduction	
1.1 Terms of Reference	3
1.2 Disclaimer	3
2. The 2009/2010 Season – Overview and Weather	
2.1 General Conditions	4
2.2 Weather Observations and Effects	5
3. Status of the Vineyards for all Projects during 2010/2011	
3.1 The Vineyards Set Up in 2008	6
3.2 The Vineyards Set Up in 2007	7
3.3 The Vineyards Established in 2006	7
3.4 Established Cropping Vineyards	8
3.5 The 2011 Harvest Outcome	9
4. Vineyard Activities 2010/2011	
4.1 Soil Management and Weed Control	10
4.2 Pruning	10
4.3 Pest and Disease Management	11
4.4 Training of Young Vines	11
4.5 Canopy Management	11
4.6 Irrigation and Fertilizer Application	11
5. Works and Considerations for all Projects 2011/2012	
5.1 Young Vineyards	12
5.2 Cropping Levels	12
5.3 Pest and Disease Management	12
5.4 Irrigation and Water Supply	12
5.5 Soils	13
5.6 Vine Nutrition	13
5.7 Harvesting Capacity	13
SUMMARY OPINION	14

1. Introduction

1.1 Terms of Reference

This report is prepared for Barossa Vines Ltd (BVL) with regard to the vineyards developed and managed by Barossa Vines Ltd. The report refers to the season encompassed by the 2010/2011 financial year. The report is done to comment generally on the viticultural status of these vineyards and on their operations during that season from a viticultural point of view.

Specifically the report is done to comment on:

- The works and operations carried out on the vineyards during 2010/2011,
- Whether or not the works have been carried out in accordance with good viticultural practice and in line with reasonable accepted industry standards
- Specific suggestions and observations regarding future operations in particular the coming season
- Any other recommendations.

1.2 Disclaimer

This report has been prepared by Paul Miller and Associates for Barossa Vines Ltd for their information and for the information of their clients involved in these vineyards.

The report contains the opinions and observations of the consultant with regard to the operations of the vineyards managed by BVL from a viticultural point of view for the 2010/2011 year. The report in no way warrants or guarantees the future physical or financial performance of those vineyards. Vineyard performance may be influenced by weather, management decisions, industry conditions and many other external factors which are outside the scope of this report.

Paul Miller and Associates and Paul Miller have no interest in BVL, the Projects the land owning companies or any property of BVL, the Projects or the land owning company. Paul Miller and Associates is independent of BVL, the projects and the land owning companies and this report is provided for an agreed consulting fee.

Paul Miller
Paul Miller and Associates
August 31 2011

2. The 2010/2011 Season – Overview and Weather

2.1 General Conditions

The 2010/2011 season in the Barossa region was significantly wetter than average and generally considered a cool season. Other than January which was hot and dry there was little or no extraordinary hot weather and during the grape ripening period it was remarkably cool. This made the vintage much later than average and particularly challenging with regard to ripening grapes before damage from fungal diseases occurred. At BVL harvest commenced nearly six weeks later than in 2010.

The season was conducive at most times to fungus diseases, weed growth and high numbers of plague locusts.

The wet season did however have some positive impacts with much lower than average requirements for irrigation other than in January.

Harvest outcomes for BVL were reported in the previous May 31 2011 report and are repeated in this report. The total crop of 5200 tonnes was well above expectations with regard to tonnage and reflects the wet season during which minimal irrigation was needed in most blocks. In a dry season the tonnage could easily have been 1000 tonnes less. The 2011 crop outcome also reflects the extra potential of the vineyards if the recommended additional irrigation capacity is put in place that would compensate for the significantly lower rainfall that occurs in most seasons in the Barossa when compared with that of 2010/2011.

The young vineyards that have been problematic still need further attention. Some of them were ready for training to the cordon wire this season but in most cases this was not done and so the onset of cropping will be delayed by another season. There may also be problems training these young vines that may grow overly vigorously.

Overall weed control was effective during the 2010/2011 season given the extraordinary amount of rainfall. The work in preparation for weed control in the 2011/2012 is a little behind schedule. Some areas will require additional attention depending on the weather in spring.

The autumn and winter period has been good for cover crop establishment and timely sowing combined with good rainfall has resulted in generally well established cover crops across the BVL vineyards. Some vineyards were intentionally left without cover as part of a particular weed control strategy.

Pruning in preparation for the 2011/2012 season is generally complete. Pruning has been running later than usual.

The generally healthy status of the vines throughout the BVL projects was maintained for the entire season except for some outbreaks of downy mildew that were controlled and did not appear to adversely affect the fruiting canopies. Locusts were present but did not affect the vines.

2.2 Weather Observations and Effects

The tables of weather data below from two local weather stations, Rosedale/Turretfield and Nuriootpa, record the local weather conditions close to the vineyards described above in 2010/2011.

Comparative 2010/2011 weather data						
Rosedale Turretfield (station 023343 - averages since 1887)						
	Rainfall		Mean daily min temp. Mean daily max temp.			
	mm/month		degrees C			
	Average	2010/11	Average	2010/11	Average	2010/11
Jul	58.8	37.7	5.0	4.1	14.7	14.8
Aug	57.4	80.8	5.7	5.6	15.7	14.3
Sep	53.7	94.6	6.6	6.4	18.1	16.1
Oct	44.8	33.7	8.3	7.4	21.5	21.5
Nov	28.3	29.3	11.1	11.1	25.4	25.0
Dec	22.7	153.7	13.4	14.2	28.1	27.2
Jan	18.5	9.1	15.0	16.2	30.0	31.8
Feb	18.3	46.4	15.6	16.3	30.5	29.8
Mar	19.7	86.0	13.3	13.5	27.1	24.3
Apr	35.9	11.5	10.6	9.9	23.0	22.8
May	53.4	76.0	8.3	7.7	18.6	17.7
Jun	56.4	46.7	6.3	5.4	15.5	15.9
Annual	467.9	705.5				

Comparative 2010/2011 weather data						
Nuriootpa (station 023373 - averages since 1952)						
	Rainfall		Mean daily min temp. Mean daily max temp.			
	mm/month		degrees C			
	Average	2010/11	Average	2010/11	Average	2010/11
Jul	66.2	39.2	4.4	3.8	13.2	13.3
Aug	63.6	75.2	4.8	5.3	14.3	13.0
Sep	60.0	95.8	5.8	6.5	16.8	14.6
Oct	49.4	33.2	8.0	7.9	20.2	20.0
Nov	29.3	28.4	9.9	10.7	23.8	23.3
Dec	24.3	134.5	11.8	12.8	26.3	25.5
Jan	18.8	4.0	13.6	15.2	28.8	30.8
Feb	18.5	92.1	13.9	15.7	28.6	27.9
Mar	22.2	121.2	11.8	12.5	25.7	22.5
Apr	38.2	6.8	9.0	9.0	21.4	20.9
May	55.0	67.6	6.7	7.0	17.0	16.2
Jun	56.3	43.4	5.1	5.1	14.2	14.4
Annual	501.8	741.4				

The 2010/2011 season at BVL was wet. Rainfall for the period July to June recorded at the local weather stations was about 50% above the long term average. The weather was also cool with no significant heat-waves.

January was dry and despite previous heavy rainfall some parts of the Rosedale vineyards suffered from a lack of water during this period because of limitations in the irrigation system.

From a vineyard management point of view the high rainfall totals in December and March had the most effect. These events meant that more fungicide was used than in average years.

The crop at BVL was at a good level of good tonnage and generally of good quality. In years of such rainfall however it is unlikely that the wine outcomes will be as good as in dryer years such as 2010. This is because the vines respond to the plentiful moisture by growing larger grapes often with less concentrated flavours.

The increased yield in 2011 compared with most other (dryer) years highlights the need for additional irrigation water under average conditions. The need for improved irrigation capacity is particularly relevant to the vineyards located at Rosedale including both the mature Rosedale vineyards and the young Eckermans and Zerk blocks. Extensive mounding work on the vineyards at Rosedale – now over 200 ha of soil mounding - has improved their moisture holding capability. However this area of the BVL vineyards is still susceptible to damage and crop reduction as a result of hot weather spikes during summer and early autumn unless increased water supplies are implemented.

Late winter and early spring rainfall in 2011 across south east Australia has so far been about average. This should continue to ease any water supply restrictions throughout the irrigation regions of southern NSW, Victoria and South Australia as it did last season.

All the BVL dams were filled or filling across the BVL properties at the end of winter 2011.

3. Status of the Vineyards for all Projects during 2010/2011

3.1 The Vineyards Set Up in 2008

At the block known as Boths and also the first stage of the Zerk block in their second year the vines made good growth that would normally have been used to set up the trunk and the first part of the fruiting cordon of the vines.

Training in this regard was behind schedule in the Zerk block.

Despite on-site planning for this in 2009/2010, Boths was not trained at all this season and so the first crop of grapes will not occur before 2013 because there will not be a cropping cordon before then. The other problem may be excessive vigour in 2011/2012 from the large currently sprawled vines that could compromise the establishment of the fruiting cordon; there will be additional work needed because of the size of the sprawled un-trained vines.

The future of the Zerk block is also dependent on the establishment of additional water storages to service both it and Eckermans.

Weed control has been good considering the season but Boths in particular will need ongoing attention.

3.2 The Vineyards Set Up in 2007

The second part of the Sturt Highway Block was first planted in 2007. The southern part of this block is now growing well. There are still some parts however that need further attention to soil work and will not commercially crop before 2013. Other parts should have a commercial crop in 2012. There were harvestable grapes in some parts in 2011 but the wet weather and access issues prevented an economic harvest.

The lower parts of the Sturt Highway block were flooded after heavy rains. These have yet to be fixed after the flood damage and so parts of the vineyard are still inaccessible.

The Eckermann 2007 blocks had some grapes in parts but by harvest time this was judged not to be a commercial crop in 2011.

In both blocks recent detailed soil analyses have identified that some areas are particularly challenging. The suggestion of re-planting with tougher complementary varieties in some areas is a good one.

The additional soil works in many parts of these young vineyards – including strategic mounding, ripping and gypsum applications – have been successful and the results are evident in the healthier growth of the vines than in previous seasons. Note that the further soil works at both Sturt Highway and Eckermann will take time – at least a few seasons.

The new dam (or dams) at Eckermann/Zerk is an increasingly urgent priority as these vineyards grow on and have to share water with the already under-watered parts of Rosedale.

Training and de-suckering in these blocks was later than desirable in most areas.

Weed control has been very good considering the season but at Sturt Highway the weeds are once again getting out of hand in some areas.

3.3 The Vineyards Established in 2006

The 2006 plantings were done to complete Waltons and to plant the first 100 acres or so of Sturt Highway. Both blocks are now cropping but only the Waltons block was harvested in 2011. The Sturt Highway was judged to be uneconomic to be harvested in this challenging season.

This area of Waltons was patchy in the past but is evening up now with some more work still to do to complete the establishment of some parts of the vineyards.

The first stage of Sturt Highway at the northern end of that vineyard is still the most problematic part of that vineyard and needs ongoing intensive management to achieve reasonable production levels as previously recommended and described.

The comprehensive weed control strategy for this part of the Sturt Highway has worked very well in 2010/11 and this combined with the use of vineguards has transformed most of this block. There are still some areas of Couch grass that are problematic.

Vine training in parts of these blocks was behind schedule this season.

3.4 Established Cropping Vineyards

The established cropping vineyards have had a good season overall and the response to rain clearly indicates the additional potential if additional irrigation capacity is put in place and underlines the risks if this is not put in place.

That additional growth and cropping was achieved in areas that had previously suffered from lack of water presents an opportunity to keep this going if more water can be supplied from 2011/2012 on.

A particularly impressive feature during 2010/11 of the established cropping vineyards at BVL has been the increasingly even nature of the vines - within blocks the canopies of each vine are similar. This is the result of ongoing efforts by the manager and staff to control weeds, to replace missing vines, to prune and train the vines and to either enhance or control vine growth and vigour through strategic soil management.

The above average rainfall also accelerated the process of evening up of these blocks in response to previous soil treatment – without that work (that should be continued) the vines would not be able to respond as they did.

Vineyards that are even throughout produce predictable and reliable grape outcomes.

Overall the fruiting canopies at BVL have been in very good shape for the whole season with healthy balanced shoot growth and little or no significant disease despite the adverse conditions. Cabernet Sauvignon canopies were larger than usual and produced good quality grapes.

Trimming, canopy management, management of water availability by timing of slashing of cover crops, mounding soil and limited strategic irrigation were all well done at BVL this season except in a few areas where shallow soils and limited irrigation capacity again caused some problems in January.

A targeted approach to the management of the BVL vineyard assets continues to offer different levels of grape style and quality to prospective buyers and will optimize the vineyard's commercial opportunities, given further attention to the water supply and delivery systems.

Weed control has been excellent considering the season.

Pruning is nearly complete.

Given that the previously reported need for additional water supply and irrigation capacity has yet to be addressed, the pruning strategy of detailed work followed by further intervention in spring could reduce the need for water next season in several problematic areas. This would also help to capitalize on the additional growth achieved this season on the cropping vineyards that was in contrast with previous seasons of average rainfall.

3.5 The 2011 Harvest Outcome

The 2011 harvest outcomes were reported to me as shown below. I have included a comparison with the 2010 yields per ha.

BVL 2011 Wine Grape Yields

Blocks	Vineyard area Ha	Tonnes harvested	Tonnes per ha 2011	T/ha 2010
Lyndoch (98&99)	49.5	425.1	8.6	5.2
Greenock	20.0	103.6	5.2	3.3
Rosedale (00&01)	67.1	454.1	6.7	4.3
Rosedale (02)	53.0	358.7	6.7	4.3
Rosedale (03)	52.3	354.0	6.7	2.9
Rosedale (04)	124.3	1084.0	8.7	6.6
BVL Land Holding (05)	188.1	1726.2	9.1	5.0
BVL Land Holding (06)	194.5	676.1	3.5	2.6

The total BVL crop of just below 5200 tonnes in 2011 is a very good result in a tough year. That the grapes were sound and receiving some praise from wineries - in a year when many regional vineyards were beset with Botrytis and other fungus problems - should help to establish BVL's reputation for the quality of its production.

The BVL grapes in 2010 were excellent but 2009/2010 was a kind season for quality when many regional vineyards achieved high grape and wine quality. For BVL to back that up with sound grapes in a difficult season such as 2011 is a very good result.

The increase in yield of 2011 over 2010 and previous years shows the effect of rainfall and the potential for BVL to increase its output if additional irrigation capacity can be put in place. In particular it was good to see the Rosedale vineyards with a good crop – this is where some of the key water issues are.

This 2011 yield outcome would also not have happened had the disease control, careful pruning, canopy management, weed control and other aspects of running the cropping BVL vineyards not been as good as it was this season. Even, balanced vineyards grow good grapes.

4. Vineyard Activities 2010/2011

4.1 Soil Management and Weed Control

The conditions after harvest in autumn 2011 were suitable for the re-sowing of mid-row grasses in most areas except where specific strategies to control problem weeds meant that cover crops were unnecessary. These cover crops sown between the vine rows have grown well. The cover crops will be slashed and weed-sprayed in order to conserve moisture as needed during spring.

Increased attention to soil management has been part of the strategy for BVL since 2009/2010. The mounding, sowing of grasses, ripping and gypsum applications in parts of the BVL vineyards are all part of this overall strategy.

Weed control during the 2010/2011 season was generally highly effective and areas with previous significant problems are now well in hand. Weed control in vineyards is always a management challenge being directly affected by the weather. In 2009/2010 the BVL team produced a credible result particularly considering the large scale of the BVL vineyards.

It should be noted that the increase in the soil available to vines through mounding, mulching and soil improvement is a long term strategy that will take some years to maximize its effects.

In areas where irrigation capacity is limiting this will need to be addressed before the vines can take full advantage of soil improvements.

4.2 Pruning

The established vines at BVL grew well in the wet season so that shoots on these vines finished the season with adequate growth to allow normal pruning in 2011. The growth after budburst in spring 2010 was even and there was minimal excess growth indicating that the overall pruning approach continues to be appropriate for the vines in these vineyards. The mature vines delivered good quality outcomes as a result of fruiting canopies that work well in the Barossa climate.

Most of the vineyard has been pruned as in past years but in some areas previous machine-based pruning has been changed back to more detailed hand pruning. This may generate some vigour challenges in some areas.

The younger vineyards are being hand pruned and wrapped along the cordon wire depending on the age and development of the vines.

Newly established vines should be two-budded (cut to two buds that will lead to a strong shoot being selected to grow up the string and be tipped and then trained partly along the cordon during 2011/2012).

The pruning and training of the young vineyards that are a year later in being trained up to the cordon that desirable will need extra attention to counteract likely excess vigour in these vines.

4.3 Pest and Disease Management

The vineyards were generally clean throughout the season other than some areas where outbreaks of downy mildew occurred. In such a wet year the extensive spray program appears to have been very effective.

There were some areas infested with snails during the last season and specific control measures have been effective.

4.4 Training of Young Vines

The season was a generally good one for the growth of the young non-fruiting vines. Unfortunately training of these vines was either not done or behind schedule. This will require additional work next season and will in many cases delay cropping by a further season.

4.5 Canopy Management

In the cropping vineyards BVL has used a consistent management approach to the manipulation of the fruiting canopies from year to year.

Young cropping vines have generally been supported by foliage wires to achieve a mix of upright shoots with some overhang and some outwardly growing shoots.

This approach has been important to establish strong cordons along the row and well-spaced and well-directed spur positions on the vines.

As the vineyards mature the blocks of vines are graduating to simple permanent support wires avoiding the need for lifting and placement of wires during the season. In some cases no foliage wires will be required in the long term.

Shoot growth can also be controlled by competition from mid-row grasses in high-growth blocks and if necessary irrigation water can be restricted to slow shoot growth.

4.6 Irrigation and Fertilizer Application

Irrigation was not needed throughout most of the growing season except for January. As previously mentioned the water holding capacity of the soils and the overall water delivery capacity of the BVL vineyards is being improved but will need further work in the future.

The fertilizer applications are based upon the results of testing vine tissues (petiole sampling), observations of vine growth, the results of soil testing done prior to planting and local experience.

Fertilizer application is done mainly through the irrigation system – fertigation. The manager is also equipped to spray nutrients on the vines if necessary.

The main activities with regard to fertilizer applications have been to apply measured amounts of nitrogen, phosphorous, zinc and manganese.

I have observed healthy growth throughout the vineyards managed by BVL and this indicates that the vines are receiving the nutrients they need. Effective weed control is essential to assist with fertigation - feeding the vines rather than weeds.

5. Works and Considerations for all Projects 2011/2012

5.1 Young Vineyards

Some replanting is still needed on the young vineyards and this should be done during September and October as weather allows.

The weed control, fertigation and particular attention to timely vine training all need to be kept in focus on the young vines so that the re-establishment process will accelerate the growth of these young vineyards to the status of the older cropping vineyards managed by BVL.

Training during the season needs to be done to establish the long term structure of the cordon and fruiting spurs to facilitate the normal canopy management of the BVL vineyards.

5.2 Cropping Levels

The manager is again targeting up to 10 tonnes per ha as a maximum average crop level in 2011 on the vineyards where the cordon and canopy are fully developed, at lesser levels on younger vines according to the capacity of those vines and in some cases at lesser levels on mature vines that have exceptional quality potential. The ultimate crop will of course depend on the seasonal conditions.

The vineyards have been winter pruned in line with the above yield targets and in some areas with respect to specific crop and quality outcomes.

5.3 Pest and Disease Management

The manager has experience in this aspect of vineyard management in the region and the effective practices of the past should be continued. In addition new developments in the technology of pest and disease management should be monitored and tested. Recent acquisitions of multi-row equipment have increased the BVL capability for pest and disease management.

5.4 Irrigation and Water Supply

The BVL dams have been filled. Irrigation maintenance is planned for spring including flushing of irrigation lines.

The electronic monitoring of water movement in the soils and its use by the vines should be continued and expanded into the new vineyards as previously planned. Irrigation management

needs to respond to seasonal conditions and monitoring of soil moisture and weather conditions combined with experienced observations of the condition of the vines are the keys to these responses.

5.5 Soils

The periodic application of gypsum across the vineyards is intended to be continued into the future. The manager monitors erosion from unusually heavy rainfall and carries out repairs to soils including access roads as necessary. Recent activities have included sowing bare areas and headlands with specific grass species.

5.6 Vine Nutrition

Vine tissues – petioles – should continue to be sampled across the vineyards to provide a guide with regard to the nutritional status of the vines.

The program of the application of measured amounts of nitrogen, phosphorous, zinc and manganese supplemented by foliar fertilizers as necessary continues to work well and will be the right basis for the approach to feeding the vines in 2011/2012.

5.7 Harvesting Capacity

The use of local harvesting contractors with machine harvesters worked well in 2011 and should be adequate in 2012 given the location of the vineyards in a major winegrape area and given a strategic approach to crop levels and harvest aims.

As the crop levels increase the predominance of Shiraz will continue to present some logistical challenges if the vintage is concentrated by hot weather or a late season. This is being considered in planning of watering and yield/quality strategies across the BVL vineyards.

Transport of grapes to the wineries was done effectively using local contractors and the region appears well serviced in this regard.

SUMMARY OPINION

The management of the BVL vineyards during the 2010/2011 season has been done in consideration of the seasonal conditions. Overall the manager appears to have completed activities that resulted in the good quality 2011 crop outcome and since then to prepare for the 2012 crop.

There are still difficulties in the establishment of the young vineyards. These need further detailed attention to bring them up to standard.

In my opinion the cropping vineyards managed by Barossa Vines Ltd have been operated during 2010/2011 in accordance with good viticultural practice and to acceptable industry standards. The younger non-cropping vineyards need additional efforts during the 2011/2012 season and additional water supplies for the future.

The manager intends to make further changes with regard to soil conditions, water supply and delivery across the BVL vineyards. This includes much needed increased water storage capacity to improve the resilience of the vineyards under hot dry conditions and to mitigate risks for future crops. Ongoing intensive management is needed on the young vineyards to set up these vineyards for future cropping.

A handwritten signature in black ink, appearing to read 'Paul Miller', written in a cursive style.

PAUL MILLER