

THE WINSTON CHURCHILL MEMORIAL TRUST OF AUSTRALIA

A study of Vineyard Management, Winery Operations and Wine Marketing.

Report by: Roderick McAlpine 2003 Churchill Fellow

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Signed: R G McAlpine

Dated: 31 March 2004.

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INTRODUCTION:

This Report covers the activities and findings from a Churchill Fellowship awarded in 2003 to visit a number of major viticulture areas in Australia. The area of study was broad by nature but specific in its applicability to the development of viticulture in the maritime climate of Norfolk Island.

The description of the project was “to enhance the establishment in Norfolk Island of a quality vineyard and winery that is linked to the Island’s economy. The study is to examine winery operations in major Australian Wine Districts to obtain first hand experience from successful operators and enhance studies and practical experience. This is to ensure a quality product, sustainable viticulture in an environmentally friendly atmosphere and excellence as a Norfolk Island tourism linked enterprise.”

The Wine regions were:

- | | |
|-------------------|----------------|
| ▪ Hastings Valley | McLaren Vale |
| ▪ Mudgee district | Margaret River |
| ▪ Barossa Valley | |

This study was made possible by:

- The support of the Winston Churchill Memorial Trust. The Fellowship was of immense benefit and the name carried considerable respect in my dealings with the many enterprises that I visited.
- The assistance and guidance by Mr Clarrie Beckingham – Senior Horticulturist with the Department of Agriculture NSW.
- The interest and support by Mr John Cassegrain of Cassegrain Wines Port Macquarie NSW.
- The kindness and willingness to help by the people that I met from the Australian Wine Industry.
- Mr Tony Messner AM, Administrator of Norfolk Island.
- My Family, Referees and the genuine caring and support by the people of Norfolk Island.

EXECUTIVE SUMMARY.

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Project description:

“A study of Vineyard Management, Winery Operations and Wine Marketing”.

Fellowship highlights:

1. Cassegrain Wines. A 2 week hands-on experience working with John Cassegrain’s team at Port Macquarie and from there, linking with nearby vineyards and wineries. An introduction to the world of bio-dynamics in viticulture.
2. Mr Clarrie Beckingham NSW Agriculture, Mudgee. An organised and complete tour of select vineyards and wineries in the Mudgee region. Enabled comprehensive discussions in Vineyard Management, Pest and disease issues, organic alternatives and vineyard design and trellis systems.
3. National Wine and Grape Industry Centre – Wagga Wagga. Opportunity to further research the issue of maritime climates in respect to varieties, humidity and vine vigour. Support from Mr Leo Quirk – Extension viticulturist and Mr Michel Meunier – Lecturer in Wine production.
4. Barossa Valley SA. Opportunity to explore the world of Wine Marketing through Cellar Doors. Supported by an invitation from Dr Mike McCarthy – Nuriootpa Research Station to learn from discussion and Barossa Valley experiences.
5. McLaren Vale SA. Varietal and Maritime effects. Welcomed by Mr Drew Noon of Noons Wines to discuss the McLaren Vale experience and Viticulture in Norfolk Island.

6. Margaret River WA. Visit supported by Margaret River Wine Industry Association and links to Mr Neil Lantzke Dept of Agriculture WA. Special support from Mr Glenn Goodall – Winemaker Xanadu Wines and Mr Nick Macpherson Vineyard Manager Clairault Wines.
7. Dr John Gladstone provided a completeness to the Margaret River experience and expertise in the areas of Varietals and climatic conditions for quality grape production.

Major Findings:

The study provided a consolidation of views and experiences. The approach to Vineyard Management was seen as efficient and professional. The increasing development of Wineries and the positive link to Wine Tourism is exciting. Marketing through the Cellar Door provided a cross section of experiences. Summary findings in terms of the project are:

- The opportunity exists for successful wine production in maritime climates through:
 - Strong viticulture management
 - Trellis system choices
 - Varietal selection
 - Temperature and relative humidity considerations.
- The Cellar Door is a critical aspect of Wine Marketing. The atmosphere, history, wine quality, price and attractions are all important. The major ingredient that shone through was the importance of professional and quality people providing that Cellar Door experience.
- Wine Tourism and regional competition is positive and its effects are being seen in the quality developments that are happening in the areas listed.
- The Wine Industry has a tremendous network and a wonderful support base in Industry Research and Development.

Implementation:

This Report is to be sent to Wine Industry publications for their consideration as an article and to the relevant Agricultural Departments. Implementation of findings will see the development of a vineyard and winery in Norfolk Island that will be a quality experience in terms of viticulture and cellar door marketing.

<p>12/01/2004 25/01/2004</p>	<p>Margaret River WA</p>	<p>WA Agriculture Mr N Lantzke Margaret River Wine Industry Association Mr Glenn Goodall – Xanadu Wines</p> <p>Mr N MacPherson – Clairault Wines T & P Negus - Swallows Welcome K & M Squance – Willespie Wines Albert Haak & Associates. A Haak & A Proffitt. Dr John Gladstone</p> <p>Viticulture in maritime environment, Wineries, Varietals, Wine Tourism</p>
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REPORT

A study of Vineyard Management, Winery Operations and Wine Marketing.

Preamble:

This Report covers the activities and findings from a Churchill Fellowship awarded in 2003 to visit a number of major viticulture areas in Australia. The area of study was broad by nature but specific in its applicability to the development of viticulture in the maritime climate of Norfolk Island.

The description of the project was “ to enhance the establishment in Norfolk Island of a quality vineyard and winery that is linked to the Island’s economy. The study is to examine winery operations in major Australian Wine Districts to obtain first hand experience from successful operators and enhance studies and practical experience. This is to ensure a quality product, sustainable viticulture in an environmentally friendly atmosphere and excellence as a Norfolk Island tourism linked enterprise.”

This was a major task in attempting to obtain sufficient information within a relatively short time-frame. From the Fellowship’s Programme one can easily see that this project would have to be enjoyable – it certainly was. Not only due to the number of cellar doors visited but more importantly to the level of support provided from the many experienced and professional people in the Industry.

This report is not to be seen as a complete guide to those contemplating viticulture in a maritime environment or entering the industry. It is drawn purely from observations and experiences throughout the programme. Technical and other issues are the realm of the many subject textbooks and reference materials.

Discussion:

“The first vines in Australia were brought by Governor Phillip from Rio de Janeiro and the Cape of Good Hope and were planted at Farm Cove in 1788. In 1791 there were three acres of vines in the Governor’s garden at Parramatta and ***about 800 cuttings reported to be doing well at Norfolk Island where the somewhat optimistic commandant opined that wine would soon be exported.*** (Wine Talk ANU 1979)”.

Since then there has not been a recording of wine production in Norfolk Island and the original grape is believed to have survived and can be found in a number of gardens in the Island. The varietal is considered to be a “*black Isabella*”.

Norfolk Island has an average rainfall of 1300mm and average relative humidity of 70%. Mean January temperature is 22°C and with an attractive dark coloured soil with deep penetration of organic matter, a vineyard in Norfolk Island could only be considered as a high vigour site. Include a large and excitable bird population and you have plenty of issues to confront the grower. The viticulture aspects were a substantial part of the Fellowship.

Viticulture Management:

This area is broken down into:

1. Trellis System
2. Varietals
3. Pest and Disease Management
4. Wine grape quality
5. Organic and Bio-Dynamic alternatives

1. Trellis System:

Following lengthy discussions with many in the industry, especially the growers, the Vertical Shoot Positioning system (VSP) was favoured as providing the most positive outcomes for the conditions. Major benefits being:

- Canopy Management
- Spray Management
- Open fruiting zone
- Good air flow within the canopy
- Ease of operation
- Ability to change to alternative systems e.g Smart Dyson.

It was observed that in many regions there was a trend to convert to VSP systems and that many new vineyards were adopting VSP. It is noted that a major determinant for many is that of mechanical harvesting, pruning and trimming. Another positive for the VSP system.

It is intended to initially apply the VSP system with fixed foliage wires. This should result in 50% of foliage growth being trained upwards and remainder allowed to sprawl outwards – hence opening up the fruiting zone. This giving the name of “lazy VSP” or “Aussie Sprawl.”

Care in the timing of canopy trimming should ensure a more open canopy, yet with sufficient protection to provide “dappled” sunlight for the grapes, and avoidance of the risk of increasing lateral growth. Trimming at commencement of veraison is considered suitable as vine growth is slowing.

2. Varietals.

This is a more difficult decision. The conditions will drive varietal choice in terms of wine quality but the tourism market will also influence decisions.

Substantial research and investigation was undertaken in this regard and the results were, in the main, supported by discussions during the fellowship. The main varietals considered suitable for a maritime climate with Norfolk Island type conditions were:

- Chardonnay
- Verdelho
- Semillon
- Sauvignon Blanc
- Chenin Blanc
- Merlot
- Chambourcin

It is acknowledged that each has their own problems but that they can grow in the proposed climate. Bunches tend to be reasonably loose and the issues of mildew are considered eased by a well managed spray regime, careful use of fungicides and quality equipment. The open fruiting zone of the VSP supports the case.

In terms of red wine production it was difficult to obtain support for Cabernet Sauvignon or Shiraz given expected bunch rot/botrytis issues. The selection of Chambourcin, a French hybrid, is supported through research and from the expansion of plantings within Australia. Chambourcin is a tough variety in terms of mildews and makes a light to medium bodied red wine. Although not well known by the market it enjoys favour by Cassegrain Wines of Port Macquarie with their bio-dynamic plantings together with vineyards in the Mid North Coast. Produced in the Mudgee region, Hawkesbury and in South East Qld. D'Arenberg of McLaren Vale produce a very nice sparkling Chambourcin.

Chardonnay will meet both viticulture and market issues. The choice of Verdelho surprised some given its low resistance to powdery mildew. The Tourism market in a sub-tropical climate would enjoy the tropical fruit characteristics of Verdelho and again a dedicated spray regime would be essential. In this climate the issue may not be powdery but more downey mildew. Time will tell.

Semillon was recommended by a surprising number of knowledgeable growers and winemakers. It will have issues nearing harvest with rain and botrytis concerns but it is expected to produce quality wine given the climate, especially the maritime temperature range. I will touch more on the work by Dr John Gladstone and Mr Erland Happ further in the report.

Sauvignon Blanc and Chenin Blanc are considered useful as quality wine in their own right but to also provide blending opportunities and product range for the winemaker.

3. Pest and Disease Management.

This is a subject by itself and although discussed with many growers it would seem more appropriate to touch on my observations and leave the technical aspects to the information readily available from industry reference material.

My understanding is that most issues can be readily dealt with provided you start with a knowledge of the surrounding area, obtain information from other vineyards, be aware of the effects and resistance of each varietal and have a preventative and treatment management strategy. During the fellowship quality information was obtained from viticulture retailers, Government Agricultural Departments and equally important from experienced growers.

Many growers considered the need for correct identification of the actual pest or disease as the major component of the management strategy. A recommended reference was "Diseases and Pest – Grape Production Series 1". Nicholas, Magarey and Wachtel, Winetitles 1994.

The impact of the internet, emails and digital photography was helping in the identification and treatment of pests and diseases. Vineyard Managers discussed their ability to take digital photographs in the field, download and e-mail to their viticulture consultants and receive advice on control within a few hours. A wonderful support tool.

The major pest that was discussed, especially in the Margaret River area was the bird population. The silver-eye being highly prominent. Netting was the only effective measure with quality and ease of operation now being readily available.

4. Wine Grape Quality.

This is the issue that was driving the outcomes of my project. The fellowship description included ... " to enhance the establishment in Norfolk Island of a quality vineyard and winery that is linked to the Island's economy". Mr Clarrie Beckingham from NSW Agriculture Mudgee stated " Rod, we are only doing this to produce quality wine grapes and quality wine".

Through the many vineyards I visited it became readily apparent that the pursuit of excellence was a driving force and for many was the much needed competitive edge. Australia through its viticulture and wine development is now a world leader. The deserved pride that many exhibited is justified by the results in the bottle and the awards on the outside.

During the fellowship, I was impressed as to the emphasis being placed on quality through lower yields and other techniques. To produce grapes with concentrated varietal characteristics so as to give the winemaker the best opportunity to produce premium quality wines.

I was fortunate to have had discussions with Mr Erland Happ of Happs Winery, Margaret River and Dr John Gladstone from Perth. Their work on wine quality and its relationship to vineyard site temperatures, prior to grape maturity, is very special and I refer the reader to their various articles and publications. The issue of equitable temperatures is of special interest to this maritime environment where the Island temperatures do not have a great variance and are moderated by a very large ocean. I intend to explore this more when hourly meteorological data is obtained and assessments are made.

In this report I have approached wine grape quality in my comments on Viticulture Management.

5. Organic and Bio-Dynamic Vineyards.

I was extremely fortunate to have included in my fellowship the opportunity to meet supporters of Organic Viticulture and Leaders in Bio-Dynamic Viticulture.

Cassegrain Wines of Port Macquarie produce Chambourcin from their Bio-Dynamic Vineyards under the guidance of Mr Ludwig Mueller, a specialist in his field. There is sufficient evidence in wine quality to support his approach (producing reserve wines) and one applauds the balanced and sustainable effect on the environment. I noted that Cullens Wines of Margaret River have also implemented Bio-Dynamic viticulture.

The organic approach shown by Mr Barry Corner of "Broombee" was interesting and has resulted in wine show awards.

My snapshot of these alternatives provide an observation that the vines are extremely healthy, more resistant to disease pressures and ensure sustainable environmental outcomes. The wines had more intense colour, wonderful quality and were well supported by the market.

Winery Operations.

The second part of the project was to look at Winery operations. It became obvious during the fellowship that the best that could be achieved was an overview and an understanding of production procedures. I was fortunate to spend time in a number of wineries and view the techniques they applied to create quality wine.

A great deal more work is required before commenting on Winery Operations although I was impressed as to what can be achieved by small wineries with minimal equipment. The question of Winery design, equipment requirements and production is for another day.

The discussion and increase in the advancement of screwcap wine bottles was supported by the number of Wineries (big and small) that had embraced the technology. There is sufficient current literature on this subject. It was evident that the benefits are well supported – especially for white wines. The reserve quality red wine producers that I met presently maintain a supporting view for cork closures.

Wine Marketing.

I approached the subject area of Wine Marketing based on Cellar Door operations. It was more pertinent and one could use own observations and reactions as a means to understanding what works and what doesn't. Many demographic, Regional and Tourism issues would normally be considered in providing a more detailed account.

I can not use examples but make the following observations. The Wineries that I have listed in my acknowledgements and programme were 1st class and any observations of a limiting nature only apply to a small number of the other 70 that I visited.

1. Wine quality and reputation played an important part in attracting customers to the Cellar Door. The major brands were well supported.
2. History of the Region and Vineyard was used very heavily to attract business. Much use was made of this in the glossy brochures and guides. In the newer regions, previous historical equipment and land use was the basis of the vineyard's historical aspect.
3. Cellar Door style was many and varied. This ranged from opulent to small stone buildings with old timber flooring. The style would appear to a matter of owners tastes to those creating an atmosphere that would suit the market. There were many similarities of style and design which, quite possibly fitted the location and region, but did not provide for any differentiation for the consumer. I was impressed with the Cellar Doors that merged where they were with the style of the country. In this example I am referring to Cellar Doors that were part of the Australian Bush (you could smell the eucalyptus) and reflected that style and pace.

The use of lawn and garden to provide an oasis was very special and the cellar doors that were able to create a total blend were very impressive. This did not mean they were the big wineries, many Boutique style cellar doors did this very well. This is especially important when visiting during the Summer. It also provides an area for the children.

Regional food and quality restaurants were evident and again this total package would have provided a wonderful marketing opportunity. The maintenance of high standards is critical when expanding into this area as the future sales of the operators wines can be reflected by the quality and service in the Restaurant..

I was impressed by the number of wineries that made much use of rose gardens and avenues. This created a traditional scene and a lovely feel. It was also used in the marketing of the winery. Maintenance of the scene should be equally important as providing it.

4. Merchandising was considered an important part of many Cellar Doors. The commercial products played a “value added” role. The views of the operators ranged from “ small profit margin but important in advertising”, “Customers are looking for it – especially from overseas” to “money for jam”. I note that the last quote was from a Cellar Door that also produced a lot of condiments. A winemaker commented that he would only stock a corkscrew but admitted that his area was out the back. The style of merchandising was predominantly similar although quality and price had large variations. Some Cellar Doors had simply gone over the top in Merchandising and in some observations had made it more predominant than the wine or the cellar door climate.
5. The most striking feature of all the Cellar Doors that I visited was the person behind the bar. They set the scene. Their welcome was part of the overall cellar door effect. Professional and with personality, coupled with a sound knowledge of region, winery and product range. This was evident in most cellar doors I visited. The importance of the Human Resource element can not be overstated. I was told that in the McLaren Vale it was encouraged for all cellar door staff to meet on a regular basis to share information so as to improve skills and knowledge, of the industry and the region.

The smaller cellar doors where the owner/winemaker also served behind the bar provided a wonderful experience for many. It provided an intimate event for the consumer and enabled a greater education of the wine that was being tasted. It was stated that this relationship resulted in greater brand loyalty.

Summary:

This has been a compilation of observations, discussions and experiences during a snapshot of the Wine Industry in the Regions that I visited. The fellowship has equipped me to achieve the standards that I have set for the development of “Two Chimneys Vineyard & Winery” here in Norfolk Island.

My Fellowship and commentary has been based on the world of Wine Tourism and it is an exciting world. It has wonderful linkages to other industries and broad multiplier effects in terms of employment and the economy.

The Winston Churchill Memorial Trust have been full of encouragement and the opportunity of a fellowship should be encouraged for others in the industry,

The fellowship also enabled me to:

- Meet an amazing number of quality people from the Australian Wine Industry.
- Commenced the Development of a broad knowledge/resource network.
- Be overwhelmed with information and genuine offers of assistance.
- Obtain a introduction into many areas and enterprises that would not normally be available.

The support and kindness of my “mentors” has been fantastic and the journey has only just begun.

Recommendations:

My objective is to use the information for vineyard/winery development and record the knowledge as a source of information for those wishing to study or establish viticulture in a similar maritime climate.

I understand that I am not suitably qualified to be making recommendations to industry although I wish to make one observation. I consider it important that wine regions maintain their sense of identity and use that region’s strengths to market and expand their business. Importing styles that do not fit the scene do not compliment the wine region.

Reference Material:**Books:**

1. Coombes & Dry Viticulture Resources and Practices, Winetitles
2. P Nicholas, et al. Diseases and Pests, Winetitles
3. Smart & Robinson Sunlight into Wine, Winetitles
4. P Iland et al Techniques for chemical analysis and quality monitoring during winemaking,
5. J Gladstone Viticulture and Environment.

Journals:

1. Australian Viticulture
 2. Wine Industry Journals
 3. Grapegrower and winemaker
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