Some of the information in this document may be redacted to protect the privacy of natural persons.

Declaration: Bannockburn Geographical Indications

I, ANDREW	JAMES	WILKINSON	of
[Name]			

Cromwell 9310 [Place of residence]

being a person authorised to present evidence in support of this Application on behalf of the Applicant, solemnly and sincerely declare that:

- 1. The evidence contained in and with this application, including appendices and attachments, is true and correct to the best of my knowledge.
- 2. I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths and Declarations Act 1957.

Name:	ANDREW JAMES WILKINSON
Signature:	
Declared at:	Cormell this 5 day of August 2021
Before me: [Name of Justice of the	Aun heaffrey Nyles Peace, or solicitor, or other person authorised to take a statutory declaration.]
Signature:	
	AARON GEOFFREY DYKES

CROMWELL

Some of the information in this document may be redacted to protect the privacy of natural persons.

Geographical Indication Name

The name of the geographical indication sought is "Bannockburn".

Quality Reputation and Other Characteristics

Bannockburn GI is a subregion of Central Otago GI. Central Otago was registered as a New Zealand Geographical Indication (GI) with the record date as 27 July 2017. In applying, the applicant, Central Otago Winegrowers Association Inc, noted that the Central Otago GI may be used in conjunction with a number of smaller geographical units, including Bannockburn.

Bannockburn falls entirely within the regional boundary of Central Otago. It has a distinct physical environment as well as a unique history that distinguishes it from other GI's within the Central Otago Region.

Central Otago is a large and dispersed Region. Warren Moran noted:

With its vines and wineries spread over an area four times larger than the Hawkes Bay wine region and about twice as large as that of Marlborough, Central Otago is the most dispersed of New Zealand's wine regions. Vines in Central Otago are clustered in what local winegrowers call subregions, some of which are over 100 kilometres apart. Each subregion has its own distinctive history, style, character and contribution to the story of the evolution of winegrowing here. (Moran, 2016)

Moran noted that six subregions within Central Otago were commonly identified. Bannockburn is one of those subregions.

Key aspects of the Bannockburn GI which contribute to the quality, reputation and other characteristics of wine grown and made there include:

- The relative isolation of the subregion with it being bounded by the Kawarau River / Lake Dunstan to the north and the Cairnmuir and Carrick mountain ranges to the east, south and west.
- The unique influence these geographical features have on the local climate.
- The uniqueness of the human geography and history of the Bannockburn area.
- The wines are typically produced from a particular suite of grapes.
- The high costs relative to the volume of production, necessitating premium pricing for both grapes and wine.
- The predominance of small, owner operated wine business with a shared vision of the GI as a subregion for producing high quality wines.

Consequently, wines from the Bannockburn GI have the following quality, reputation and other characteristics that are essentially attributable to their geographic origin:

• Bannockburn GI wines are typically specialised in a particular suite of classic grape varieties and wine styles suited to both the physical environment and the market, specifically, Pinot Noir, Chardonnay, Riesling and Pinot Gris.

- Bannockburn GI wines display recognisable and consistent sensory characteristics across a range of varieties and styles due to the physical environment as well as viticultural and winemaking practices.
- Bannockburn GI wines are typically high-quality products produced for the premium to ultra-premium market segments.
- Bannockburn GI wines have an international reputation for the foregoing based on consumer recognition, the expert opinion of wine professionals, wine media and tourists visiting the region.

History and Background

Time Line

- 1100 1350: The first humans arrived with early Polynesian exploring the ranges and valleys seeking food and minerals. The original native kanuka/kowhai-rich dry woodland forest was rapidly removed by human burning, both by Māori and later by European settlers. A significant archaeological site exists at Hawksburn some 15km south of Bannockburn. (McIntyre)
- 1853: The first European (Nathaneal Chalmers) visited the Cromwell Basin and Upper Clutha Valley, guided by Maori guides Reko and Kaikoura.
- 1850's: Pastoralists began settling in the area.
- 1862: Gold is discovered in Central Otago in the Clutha Gorge, the Kawarau River and the area to become known as Bannockburn.
- 1862: A settlement is established on the southern bank of the Kawarau River initially known as Kawarau, it soon is named Bannockburn. (Parcell, 1951)
- 1895: Bragato identifies Bannockburn as a suitable winegrowing region. (Bragato, 1895)
- 1977-1983: Fitzharris notes frost free and suitable sites for horticulture in Bannockburn in a study for the proposed Clyde Dam and Lake Dunstan (Fitzharris, 1977) (B.B.Fitzharris, 1983)
- 1985: Soil map of Bannockburn Valley was carried out by Beecroft. (F.G.Beecroft, 1985)
- 1986: Fitzharris and Turner map the climate zones of Bannockburn and confirm the area to be climatically very favoured and the warmest summer locality in Otago. (Turner & Fitzharris, 1986)
- 1991: The first grape vines are planted in Bannockburn by John Olssen and Heather MacPherson
- 1992: Soils for Horticulture by McIntosh further details the suitable soils for commercial grape production in Bannockburn. (P.D.McIntosh, 1992)
- 1990–2000: 200 hectares of vineyards are planted along Felton Road and Cairnmuir Road in Bannockburn
- 1996: The first wine label noting the subregion of Bannockburn appears on a 1995 vintage Pinot Noir. (see Appendix 2 Wine Labels)

- 1997: Felton Road Winery is the first winery built and opened in Bannockburn.
- 2000–2010: 140 hectares of vineyards are planted in Bannockburn extending from Cornish Point in the east to Walkers Creek in the west.
- 2009: Bannockburn is first used in the context of a subregional identifier on a wine front label produced from Bannockburn grapes.
- 2013: Bannockburn winegrowers identify and codify the subregion as bounded by Lake Dunstan / Kawarau River to the north, the 400 metre contour to the south, extending from Cornish Point (east) to Walkers Creek (west). (Walter, 2019)
- 2016: Bannockburn winegrowers produce a map of the individual vineyards in Bannockburn by vineyard name, grape variety, and producer. (Walter, 2019)
- 2019: Bannockburn vineyard map is updated and 340.7 hectares of vineyards are recorded in the Bannockburn subregion. Appendix 1.

The Economic Context

Over the period of 29 years, the winegrowers of the Bannockburn subregion have established it as a distinct and recognisable wine growing region. Most of the area suitable for grape growing has been planted during this period and apart from several small parcels of land planted in cherries, stone fruits and olives, grapes are the dominant crop produced.

Bannockburn, where the Gorge (Kawarau) meets the Cromwell Valley, is the most intensively planted sub-region. Like so many fine wine regions, this was once gold mining country. (Johnson, 2007)

While many Central Otago wines are produced at predominantly three contracting facilities, Bannockburn wines are largely made in the producers' own facilities. Twelve wineries produce wine from Bannockburn fruit using their own wineries with six of those wineries being located in Bannockburn. This compares to Central Otago's 133 registered wineries and fewer than 30 processing facilities in the region. (New Zealand Winegrowers Inc, 2020).

Vineyards are small and production is limited with little scope for economies of scale. There are 56 vineyards totalling 340.7 hectares of grape vines planted in Bannockburn (Bannockburn Winegrowers, 2019). Most work is done by hand – pruning, thinning, leaf plucking, harvesting – significantly more expensive than conventional mechanical methods. Yields are low, typically between 5.0 and 7.0 tonnes per hectare, depending on variety. Pinot Noir, the most widely planted variety (78% of total) is the lowest yielding.

Wines are produced in small batches and in the winery much of the work is labour intensive.

Land values are high, even by Central Otago standards. Vineyard land in Bannockburn attracts a premium both because of its scarcity and the desire of producers to grow Bannockburn grapes and wines.

All of these factors dictate that the Bannockburn GI must operate as a premium to ultrapremium wine region. Accordingly, producers maximise the quality and distinctiveness of wines from the Bannockburn GI to develop and maintain market position.

Industry Structure

All growers and wineries are members of the Central Otago Winegrowers Inc. (COWA) and participate in its events and promotions. Many of the winegrowers domiciled in the Bannockburn subregion have held office in and contributed to both COWA and Central Otago Pinot Noir Ltd (the previous marketing arm of COWA 2002-2020). There is no intention of the Bannockburn producers to relinquish their ongoing involvement in COWA.

As a subregional group the Bannockburn producers have recorded and mapped the area's vineyards and maintain those records. From time to time they have worked together informally on issues such as signage and participation in local initiatives.

Geographical Features in the Area

Bannockburn GI lies within the wider Cromwell Basin at its southern end. It forms a 9 km crescent shaped stretch of land bounded to the north by the Kawarau River, which flows into the upper reaches of the Kawarau arm of Lake Dunstan and to the south by the 400 metre contour line. The 400 metre contour was considered appropriate as beyond that contour the ripening ability of grapes is compromised with the cooler temperatures. Beyond that are the Cairnmuir and Carrick mountain ranges.

Between the 400 metre contour and the Kawarau (Kawarau River and Kawarau Arm of Lake Dunstan (at an elevation of 195 metres) the land slopes gently with predominantly north facing slopes and small terraces. Some of this land still contains the remains of old gold workings, limiting the land available for planting.

The eastern boundary of Bannockburn is Cornish Point at the intersection of the Kawarau and Clutha rivers, the last gently sloping area before the Cromwell Gorge. The western boundary is the last gently sloping area before the Kawarau Gorge, adjacent to Walkers Creek.

Soil Composition in the Area

Soils across the Bannockburn subregion contain a similar extensive diversity found elsewhere in Central Otago. Because of its location at the southern end of the Cromwell basin, an old glacial valley, the prevailing northerly winds have deposited glacial loess across the northern slopes. Some modification occurred in parts as a result of the goldmining activity throughout the Bannockburn area commencing in the 1860's.

The parent rock material is schist (metamorphosed greywacke), part of the ancient 80 million year old Zealandia continent, whose surface was eroded over 60 million years ago and then uplifted in the last two million years. The soils range from outcrops of ancient lake bed sediments, outwash schist, greywacke and quartz gravel deposits forming fans at the base of mountains and terraces, to deep silts, and sands. In many places the hills have been

coated with a veneer of loess, and the terraces and fans with fine alluvium and loess. Due to the parent rock and gravels, they are free draining and in most sites the soils result in low vigour. Scattered deposits of calcium carbonate can be found in many soils at depth. The low rainfall has kept leaching effects low, so there is a good level of mineral compounds present. However, the low rainfall has kept plant growth sparse, which means the organic matter content of the soils tends to be low. The result is a range of soils generally low in vigour, but high in mineral richness.

Climate in the Area

Climate is one of the primary determinants of the growth and ripening of grapes grown within a GI, which in turn contributes to distinctive sensory characteristics of wines produced from that fruit. It affects the development of the fruit, the timing and duration of harvest as well as the health and quality of the vine.

The Bannockburn GI enjoys many attributes that are also characteristic of other parts of Central Otago. The climate is truly continental created by the basin like nature of the wider region (the Cromwell Basin) protected by the Southern Alps to the west and the Cairnmuir and Carrick Ranges to the south. These geological factors reduce rainfall within the basin significantly. Further, it is the area in New Zealand most distant from the sea.

Notably, Bannockburn GI is the warmest subregion within Central Otago measured in Growing Degree Days >10⁰ C Oct-April (GDD). GDD measures the ability of grapes vines to grow and ripen fruit over the normal growing period.

The following table provides comparative data for the various sub-regions of Central Otago. (Moran, 2016)

Locality	GDD	Average Daily ⁰ C			Annual mm	Air Frosts
	>10 ⁰ C Oct-April	January		precipitation	Sept/Oct	
		Max	Min	Mean		
>1100 Degree-days						
Bannockburn	1290	25.2	11.2	18.2	400	7
>1000 Degree-days						
Cromwell to Pisa	1100	24.4	11.0	17.7	400	10
Cromwell Gorge	1100	24.1	11.9	18.0	400	6
Alexandra to Clyde	1030	23.2	10.7	17.0	350	8
Bendigo	1040	23.8	9.8	16.8	400	8
>900 Degree-days						
Wanaka	940	24.1	10.4	17.3	660	9
Gibbston	910	24.1	9.3	16.7	600	6
>800 Degree-days						
Roxburgh-Dunbarton	890	23.1	9.8	16.8	500	6
Arrow Basin	890	23.8	9.8	16.3	650	6

Moran observed:

"The results from Bannockburn are even more persuasive. Its degree-days during the growing season are at least 350 higher than Wanaka and Gibbston and more than 150 higher than all other districts." (Moran, 2016)

Other climatic factors that affect the growing of grapes are precipitation and the number of air frosts.

Grapes are at risk from diseases which thrive under unfavourable climatic conditions. Rain and humidity are particularly hostile to grape growing.

The low rainfall and the timing of rainfall in the Bannockburn GI are factors which minimise this disease pressure. The result is clean fruit providing true flavours and little need to intervene in the winemaking process.

On average Bannockburn experiences seven air frosts during the spring and one or two in the autumn. These frosts would potentially curtail vine growth and grape ripening. However, most Bannockburn vineyards have installed frost protection measures to counter the effects of these frost events, using wind or water to protect the vines.

Methods of Making Wine in the Area

Grape Varieties and Wine Styles

The plantings in the Bannockburn GI are dominated by four grape varieties – Pinot Noir, Pinot Gris, Riesling, and Chardonnay. There are minor plantings of Sauvignon Blanc, Chenin Blanc, Gewürztraminer, Pinot Blanc and Grūner Veltliner.

There are 340 hectares of grape vines planted broken down as follows:

Variety	Hectares
Pinot Noir	265
Pinot Gris	25
Riesling	20
Chardonnay	17
Other	13

The overwhelming majority of wines produced are still wines with some of the Pinot Noir being produced as Rosé and sparkling wine.

Viticulture and Winemaking

Viticulture and winemaking reflect the value of grapes and wines being produced. Most viticulture is dominated by manual production. While mowing, spray application and soil cultivation is largely carried out using machines, the key aspects of pruning, leaf and shoot thinning, and harvesting are done by hand.

Organic cultivation of vineyards features widely in Bannockburn due to the premium positioning of the wines being made and the individual winery's environmental and quality aims.

Because of the lack of rainfall, particularly during the growing season, most vines are irrigated using drip irrigation methods. This ensures that water application is measured and controlled to maintain vines at their optimal health.

Cropping levels are low. Pinot Noir is cropped between 5 and 6.5 tonnes/ hectare dependent on the season. Whites are generally cropped higher; 6 to 7.5 tonnes per hectare are typical. Weather is a major factor in determining crop levels. However, vines are deliberately thinned to ensure that they are able to support the loads and provide ripe and high-quality fruit for processing.

Winemaking practices also reflect the value of fruit produced. Small batch production, minimal intervention and deliberative winemaking are the norm. Pinot Noir is the dominant variety and is typically aged in barrel. Reliance on indigenous yeast is the norm and barrel fermentation of white wines particularly Chardonnay is common.

Vineyards and wineries are certified either as sustainable within the New Zealand Winegrowers Sustainable Winemaking Programme (SWNZ), Biodynamic (Demeter NZ) or Organic (BioGro NZ).

Quality

Wines from Bannockburn have achieved considerable success in national and international wine competitions, regularly winning gold medals and trophies for champion wines. In addition, wine critics have reviewed and critiqued wines very favourably for many years. See Appendix 3 for a list of trophies (champion wine of class) awarded to Bannockburn wines.

The Fine Wines of New Zealand Selection

A selection of New Zealand's finest wines (82 selected in 2019) made by seven Masters of Wine and one Master Sommelier identified Bannockburn featuring strongly amongst Central Otago wines.

Three of the four Rieslings and four of the twelve Pinot Noirs selected from Central Otago are from Bannockburn. See Appendix 4 for the Fine Wines of New Zealand list.

Sensory Attributes

Bob Campbell MW, one of New Zealand's pre-eminent wine writers and judges, described Bannockburn Pinot Noir as:

"Although vintage, vineyard site and winemaking techniques blur regional definition I do think that Bannockburn has a distinctive fruity-forward style with that distinguishes it from other Central Otago sub-regions. I often find opulent plum and dark cherry flavours and a very attractive Musigny-like texture. That was particularly evident on the recent Central Otago New Release tasting where we tasted 76 samples of Pinot Noir grouped by vintage and sub-region. The seven Bannockburn wines from 2017 and the 12 wines from 2016 all showed discernible sub-regional characters that I would describe as "plump, silken textures with plum and cherry flavours together with a suggestion of spice." (Campbell MW, 2019)

Reputation

In a short space of time Bannockburn has developed a reputation as a premium wine subregion. Even within the context of Central Otago and its recognition as a significant producer of premium Pinot Noir, Bannockburn GI provides a further dimension. This has led to many of the Bannockburn producers labelling wine recognising the origin of its Bannockburn fruit. (See Appendix 2 – Wine Labels.)

Wines from Bannockburn GI are exported, sold within New Zealand to wine retailers and restaurants, and sold directly to consumers at the cellar door or through mail order.

The table below shows sales in various markets.

Winery	AUST	EU	ASIA	AMERICAS
Akarua	~	\checkmark	✓	~
Black Quail	\checkmark	\checkmark	~	~
Burn Cottage	\checkmark	\checkmark	~	~
Carrick	\checkmark	\checkmark	~	~
Ceres		\checkmark	\checkmark	~
Doctors Flat	\checkmark	\checkmark	\checkmark	~
Domain Road	~	\checkmark	√	√
Gate 20 Two	\checkmark			
Felton Road	\checkmark	\checkmark	\checkmark	~
Mt Edward	~	\checkmark	✓	~
Mt Difficulty	~	\checkmark	✓	~
Terra Sancta	\checkmark	\checkmark	\checkmark	
Two Paddocks	~	~	~	~

Within several years of the first Bannockburn wines being released, Bannockburn was identified as a distinct subregion for visiting its establishing wineries. In 2003, Otago Daily Times wine columnist Charmian Smith wrote: *"Certainly the Bannockburn district, one of Central's distinct wine sub-regions, is now well and truly a wine-visiting destination with five wineries open for tasting...."* (Smith, 2003).

Many wine experts and commentators have recognised the different nature of Bannockburn wines. The wines are described as *"firm structured"* (Orlin, 2008), *"the fleshiest and richest wines of the region* [Central Otago] *but with good structure for the top wines"* (Lewin, 2011).

The subregion is seen by many as a premium Pinot Noir producing one. Commenting on land purchases in the district Michael Cooper said:

"Buying Bannockburn. One of the country's top pinot districts is attracting interest from overseas investors. Is our most prized district for pinot noir passing out of New Zealanders' hands? Draped across a north-facing crescent, 220 -370m above sea level in the Cromwell basin, Bannockburn's vineyards include some of the biggest names in Central Otago pinot noir...". (Cooper, 2018)

In her 2018 book on Central Otago, Viv Milsom wrote:

"Bannockburn, with its north-facing slopes rising from 220-370 metres above sea level, has some of the warmest sites in Central Otago and a lower risk of frost than other sub-regions. Seen as the jewel in the crown of Central Otago, Bannockburn is the most densely planted sub-region with around 325 hectares of vines". (Milson, 2018)

Nick Stock writing for jamessuckling.com in 2015 wrote: *"If Central Otago was the Côte de Nuits, then Bannockburn would likely be Vosne-Romanée …."* referencing this highly regarded appellation within Burgundy. (N.Stock, 2015)

In End of July 2019, The Wine Advocate, US author Joe Czerwinski wrote in his feature, "New Zealand: Central Otago and Beyond. Bannockburn is one of the region's warmest and driest subregions. It's home to Felton Road, Mount Difficulty and Terra Sancta, among others, and is certainly one of Central Otago's most consistent grape-growing regions. Harvest here often occurs as much as a month ahead of Gibbston." (Czerwinski, 2019)

Appendix

- Appendix 1 Bannockburn Vineyard Map
- Appendix 2 Wine Labels
- Appendix 3 List of Awards
- Appendix 4 2019 Fine Wines of New Zealand list

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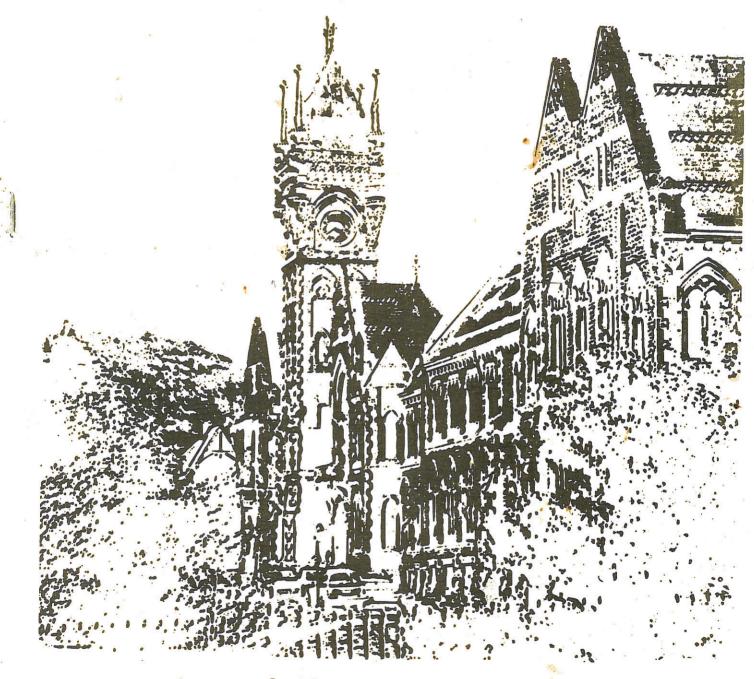
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CLINATIC INVESTIGATIONS ASSOCIATED WITH

CLUTHA VALLEY DEVELOPMENT



University of Otago geography discussion papers

CLIMATIC INVESTIGATIONS ASSOCIATED WITH

CLUTHA VALLEY DEVELOPMENT

Dr B.B. Fitzharris Department of Geography University of Otago

December 1983

nearing completion. The results will improve our understanding of present fog formation, and lead to better predictions of fog behaviour after Lake Dunstan is formed.

Likewise mesoscale mapping of topoclimates to find good sites for horticulture is continuing. Frost incidence and airflow patterns in the Bannockburn Valley and Cromwell Basin on cold nights are well measured (Fitzharris 1977c, Fitzharris et al 1980). Relatively frost free sites have been identified in the Kawarau Gorge and on the higher fans of the Bannockburn Valley. Other good sites, but less favourable, have been found on the slopes south of the Kawarau River and the terraces of Northburn. No site has been found to match the warmth of the Cromwell Gorge on frosty nights.

Summer heat units in the Bannockburn district vary from 1051*(cf.Cromwell 953, and see Table 1) along the terraces of Felton Road and Cairnmuir, to less than 700 in the upper part of the valley (Turner 1981). Detailed temperature measurements over at least two months are needed to map summer warmth in other districts of the Upper Clutha Valley.

Studies of the vertical temperature structure within the cold air pool of the Cromwell Basin, using sensors attached to balloons, and records from an acoustic radar, show that there are often multiple inversions up to 500 m above the valley floor. Temperatures increase with height in the lowest 100 m of the atmosphere. The gradient can be up to 5° C/100 m, but usually averages 3° C/100 m on frosty nights. As a consequence, the air pollution potential at Cromwell is high, especially in winter. Furthermore, the

12.

New Zealand: Central Otago and Beyond

JOE CZERWINSKI

1st Aug 2019 | The Wine Advocate (/articles/the-wine-advocate) | *End of July 2019* (/articles/the-wine-advocate?issue=xkruz2WAgwzgz6dwx)

Central Otago—one of the world's southernmost grape-growing regions—has become virtually synonymous with Pinot Noir. It boasts the country's most continental climate, with sunny, warm summer days punctuated by cool nights. It's those cool nights that prevent the grapes from losing acidity too rapidly during the ripening process, allowing the tannins to gradually soften while the grapes, and the resulting wines, retain a sense of freshness.

This marked continentality means that the growing season tends to be short, with frost risk present both at the beginning of the season, shortly after budburst, but also at the end of the season, when growers hang their grapes out hoping to achieve a bit more ripeness. Snow has been known to fall among fruit-bearing vines.

The frost risk means many vineyards are concentrated along north-facing slopes in several widely scattered subregions. While some wineries blend fruit from these to ameliorate their risk even further—or produce bottlings from different subregions—others focus more specifically on one region or another.

Close to picturesque Queenstown, Gibbston was one of the first Central Otago subregions to be developed for viticulture, in the 1980s. Its high elevation and relatively exposed nature make it one of the cooler subregions, but that high risk brings great rewards in vintages that manage to ripen the grapes fully. It's only fitting that commercial bungee jumping got its start here at the Kawarau River Gorge. Peregrine and Valli are both located in Gibbston, although both source grapes elsewhere as well.

Wanaka was another early grape-growing region, as it is where Rolfe and Lois Mills planted their first commercial vineyard in 1982, founding Rippon Vineyard. Now one of the world's most

helps reduce frost risk, but this is still one of the cooler subregions within Central Otago.

The other cool subregion is Alexandra. Actor Sam Neill's Two Paddocks winery is based here, surrounded by dramatic schist outcrops. Smartly, he also has acquired vineyards in Bannockburn and Gibbston, as his Last Chance Vineyard doesn't always ripen before the Autumn frosts.

Bannockburn is one of the region's warmest and driest subregions. It's home to Felton Road, Mount Difficulty and Terra Sancta, among others, and is certainly one of Central Otago's most consistent grape-growing regions. Harvest here often occurs as much as a month ahead of Gibbston.

Lowburn and Pisa are similarly warm, relatively speaking. Plantings here tend be on old river terraces, which provide excellent drainage in case of rain as well as a variety of topography. Burn Cottage, for which Ted Lemmon (Littorai Vineyards) consults, is on a hillside; Amisfield's vineyards are largely flat. Domaine Thomson is also based here.

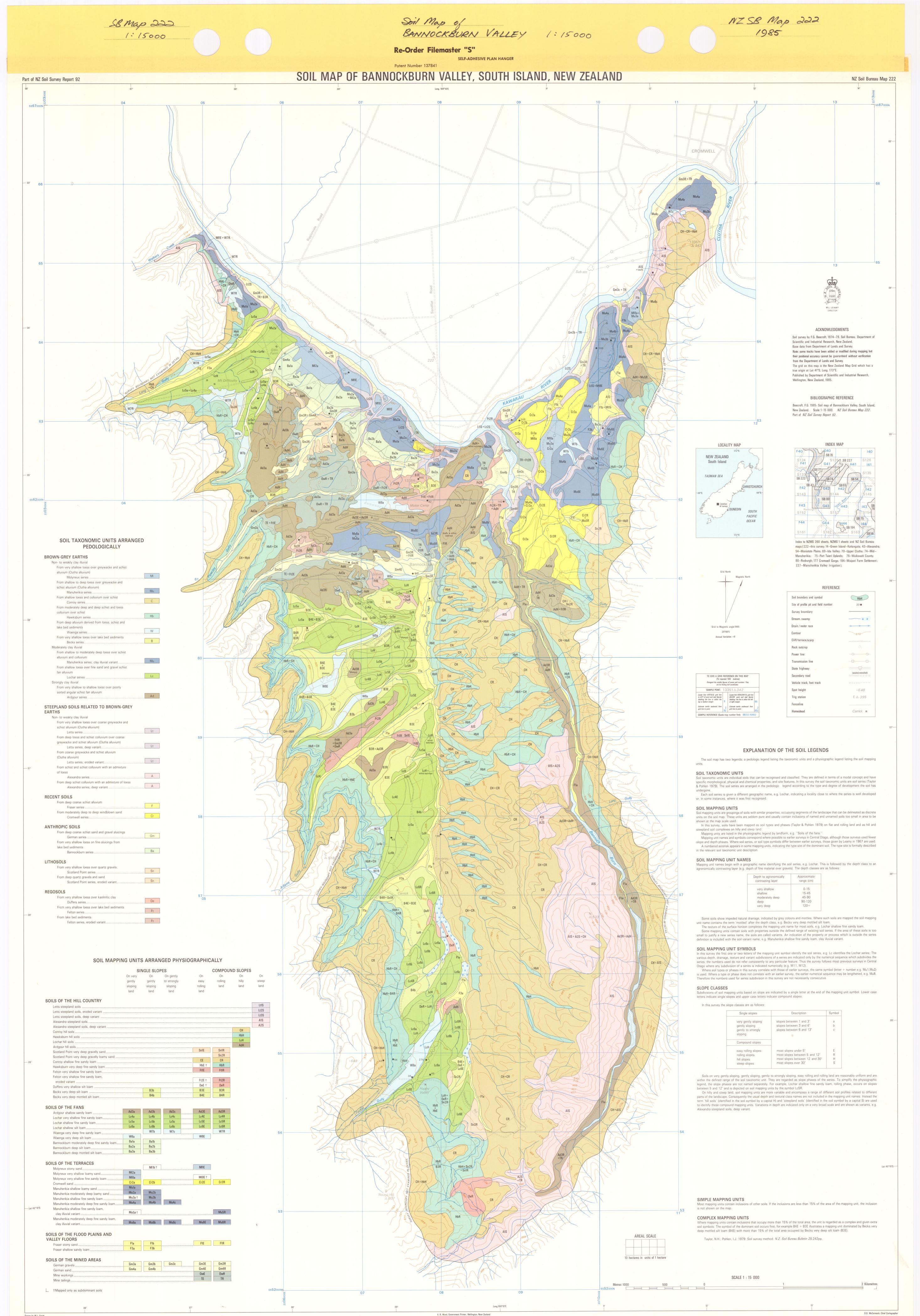
Finally, Bendigo is considered the warmest subregion in Central Otago, with north-facing slopes and terraces on schist-derived soils. Quartz Reef's vineyard is here, as is Prophet's Rock, Mishas's Vineyard and several others.

Depending on the vintage, some or all of these subregions may perform well. Adding to the confusion for overseas consumers, Central Otago vintages don't often jibe with conditions further north. Here, 2014 and 2016 were warm vintages, while 2015 was cool. The region escaped 2017 unaffected by the tropical cyclones that unloaded rain on more-northern latitudes.

While Central Otago captures much of the buzz surrounding New Zealand's far south, there's another part of the South Island that deserves a nod. About an hour or so north of Christchurch, close to the eastern coastline, the region known as Waipara or North Canterbury is turning out some fine examples of Burgundian varieties.

Pegasus Bay is perhaps the best known of these wineries—deservedly so, for its pioneering status, consistent wine quality and fine cellar-door restaurant—but there is competition. Just a bit inland, in an old limestone quarry, lies Bell Hill, a tiny specialist producing some of the country's best Chardonnay and Pinot Noir. Tough to find and tough to afford, but rewarding in the end.

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Depth to agronomically contrasting layer	Approximate range (cm)	
very shallow	0-15	
shallow	15-45	
moderately deep	45-90	
deep	90-120	
very deep	120+	

Single slopes	Description	Symbol
very gently sloping	slopes between 1 and 3°	а
gently sloping	slopes between 3 and 6°	b
gently to strongly	slopes between 6 and 13°	С
sloping	0	
Compound slopes		
easy rolling slopes	most slopes under 5°	E
rolling slopes	most slopes between 5 and 12°	R
hill slopes	most slopes between 12 and 30°	Н
steep slopes	most slopes over 30°	S

Drawn by M.J. Smith



UGH JOHNSON JANCIS ROBINSON

THE WORLD ATLAS OF MANAGEMENT OF THE WORLD ATLAS OF

MITCHELL BEAZLEY

THE WORLD ATLAS OF WINE

Hugh Johnson, Jancis Robinson

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How the maps work

The maps in this Atlas vary considerably in scale, the level of detail depending on the complexity of the area mapped. There is a scale bar with each map. Contour intervals vary from map to map and are shown in each map key. Serif type (eg MEURSAULT) on the maps indicates names and places connected with wine; sans serif type (eg Meursault) mainly shows other information.

Each map page has a grid with letters down the side and numbers across the bottom. To locate a château, winery, etc, look up the name in the Gazetteer (pages 385–399), which gives the page number followed by the grid reference.

Every effort has been made to make the maps in this Atlas as complete and up to date as possible. In order that future editions may be kept up to this standard, the publishers will be grateful for information about changes of boundaries or names that should be recorded.

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entral Otago

tral Otago (or "Central" as the locals call it) e world's southernmost wine region and is led only by the Cape wine country of South ca as the world's most scenic. Brilliant uoise rivers tumble through wild thymeted gorges, overlooked by snowcapped untains even in summer. In winter, enstown, a magnet for tourists all year, is a Zealand's ski capital and Central Otago's arkably cohesive band of winemakers take an or two's skiing before work as their right.

1997 there were just 14 wine producers fewer than 500 acres (200ha) of vines. By 5 official figures saw the number of producise to 82 drawing on 2,800 acres (1,150ha) ineyards, planted mainly with particularly hful Pinot Noir vines, much of whose uce is vinified at contract wineries.

nlike the rest of New Zealand, Central to has a dramatically continental rather maritime climate, which makes summers by and dry but short. Frosts are a threat ughout the year and in cooler areas, such as soton, even the early-ripening Pinot vine have difficulty reaching full maturity before dvent of winter.

In the other hand the summer sunlight is ling. The hole in the ozone layer over this ted part of the world may account for this ually high solar radiation, but reliably cool ts keep acidities respectable. The result is ingly bright fruit flavours, and such tess that wines with less than 14% alcohol elatively rare. Central Otago Pinot Noir, like borough Sauvignon Blanc, may not be the est wine in the world but it is easy to like st as soon as it's bottled.

e region's summers and early autumns are y that even the rot-prone Pinot Noir rarely rs fungal diseases, and there is no shortage igation water in a ski area. The soils' watering capacity is very limited, however; they nainly light, fast-draining loess with some els over schist (the same rock base, 200 on years ago, as that of Marlborough).

e southernmost subregion is Alexandra. ively cool, it was first planted in the 1980s ack Ridge, the winery closest of any to the n Pole. Gibbston, slightly northwest of here, en cooler, but the vines are planted on n-facing slopes of the stunning Kawarau e. In longer growing seasons wines from

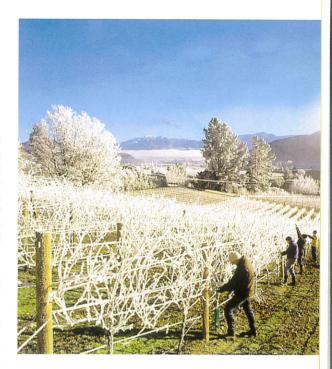
on Road, established in the early 1990s, is the winery as done most to put Central Otago on the international Mt Difficulty is another very reliable producer and, ed in 1998, another old hand in this very new region.



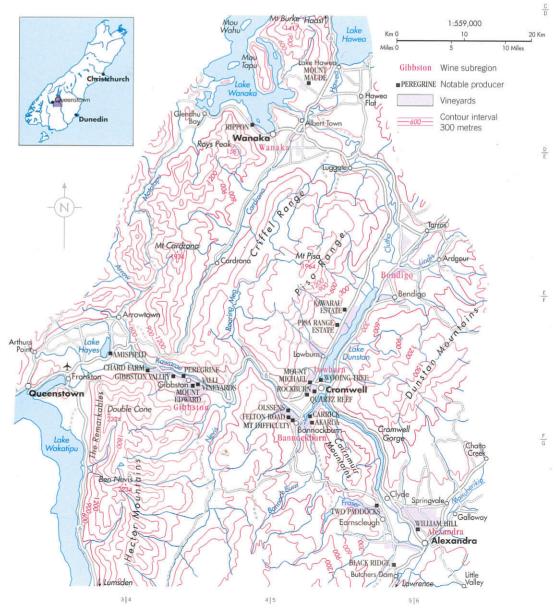
FELTON ROAD Burd 3 PINOT NOUR CENTS PROV CEN here can have some of the most complex flavours of all. Bannockburn, where the Gorge meets the Cromwell Valley, is the most intensively planted subregion. Like so many fine wine regions, this was once gold mining country. Bendigo to the north is also relatively warm and is rapidly being planted with vines even if there are no wineries here yet. There is also great potential in Lowburn, the valley south of Bendigo.

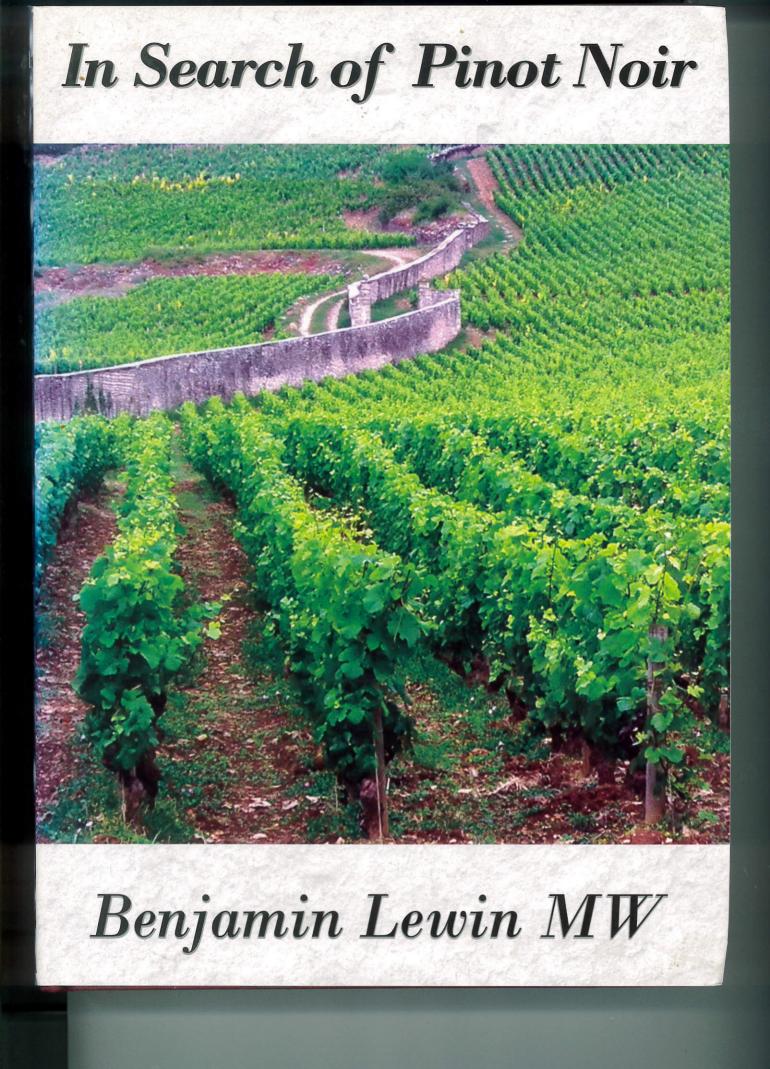
The most northerly subregion of all, Wanaka, was one of the first to be developed. Rippon's vineyards are right on the lake, which usefully reduces the risk of frost, and have provided fodder for thousands of photographers since they were first planted in the early 1980s.

Northeast Otago now has its own wine region, Waitaki Valley (see map, p.358), where prospectors are banking on the limestone of Burgundy, unknown in "Central", although they too have to cope with the disadvantages of perennial frost risk and (so far) young vines. The future should be as bright as the wines.



No doubt about chilly winters here at one of Chard Farm's vineyards in Gibbston. The crucial factor each year for the cool Gibbston region is whether the grapes ripen fully before winter arrives.





In Search of Pinot Noir

Benjamin Lewin MW

Vendange Press Dover 2011 a unique n wine and wine. He is a ting Editor of 211. Bordeaux? eived r innovative the 'erer wine myths and ? Wine, razine. rn egions his

Central Otago has vineyards in several separate areas. Two thirds lie in the Cromwell Basin, to the south of Cromwell or to its north on both sides of Lake Dunstan. Most of the rest are in Gibbston Valley. There is a cluster around Alexandra to the south, and a few at Wanaka to the north. North Otago lies to the east of the map.



the dramatic Cornish Point vineyard, on a promontory surrounded by water, more or less at the foot of Lake Dunstan (which was created when the Clutha River was dammed). At the western edge is the Elms Vineyard, more or less as far as you can go before being blocked by Mount Difficulty. There's a wide variety of soils in Bannockburn, from loess to schist. Bannockburn has the fleshiest, and richest, wines of the region, but with good structure for the top wines, especially from the iconic Felton Road area. At a casual tasting, Bannockburn may seem to have more forward fruits and less structure, but this impression may be biased by the concentration of producers making more entry-level wines for immediate consumption.

Moving up Lake Dunstan, it is a little cooler. Going north provides a contrast between the two sides of the lake. Most vineyards are on the west side of the lake, on slightly inclined land with loess over sand and gravel soils, extending from Lowburn through Parkburn and Pisa. The most recently developed area is Bendigo, on the east side, where the vineyards are on steep slopes based on schist, with about a 150 m rise from the lake to the top of the slope. This side of the lake is warmer, partly because of heat reflected from the rocky soil. Quartz runs through the area, and gold mining in the quartz reef was a major economic activity in the nineteenth century. Wines from the western side are plush and rich; wines from Bendigo on the eastern side have darker fruits supported by the biggest tannic structure of the region. "This vineyard brings tannins very much at the masculine end, our job is to give it a feminine edge," says Rudi Bauer of Quartz Reef, who pioneered wine production at Bendigo (T page 351). Pinot



Most of the cover

The VINEYARDS of CENTRAL OTAGO

A Passion for Winemaking on the Edge

TEXT BY VIV MILSOM

PHOTOGRAPHY BY MIKE WILKINSON

The VINEYARDS of CENTRAL OTAGO

I WOULD LIKE TO THANK the following people who have helped and inspired me in the writing of this book: Jeremy Sherlock, my publisher from Penguin Random House; Mike Wilkinson, photographer; Phil Melchior, friend and mentor; Chris Lumsden, Wanaka bookseller; Alex Easton, assistant viticulturist at Ceres Wines; and wine writers Jane Skilton and Elaine Chukan Brown for their forewords.

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- VIV MILSOM

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– MIKE WILKINSON



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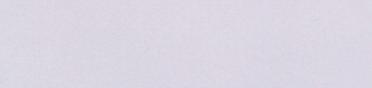
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8



BANNOCKBURN, with its north-facing slopes rising from 220 to 370 metres above sea level, has some of the warmest sites in Central Otago and a lower risk of frost than other sub-regions. Temperatures in February and March are often over 30 degrees Celsius and harvest is usually a month earlier than at Gibbston.

With the planting of Olssen's vineyard in 1991, closely followed by Felton Road and Robin Dicey's Full Circle vineyard in 1992, Bannockburn's vineyards were the first to be developed in the Cromwell Basin.

The soils in Bannockburn, as in the other sub-regions, vary considerably. They include lighter, stonier, schist-based soils that are well suited to growing Chardonnay and Riesling, and heavier, more clay-based soils, where Pinot Noir does well.

Seen as the jewel in the crown of Central Otago, Bannockburn is the most densely planted sub-region with around 325 hectares of vines.

NEW ZEALAND

The Land, the Vines, the People

WARREN MORAN

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Cover design: Carolyn Lewis Front cover: Jim Tannock Photography Back cover: Marti Friedlander Page ii: Ngatarawa Wines, Hawke's Bay. *Ngatarawa Wines Collection* Pages iv–v: Long Gully, Mt Difficulty Wines, Central Otago. *Tim Hawkins*

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He did not identify the variety, but today's grape growers would not be picking anywhere near this early in the season. Writing of the Queenstown area, he said:

In certain parts of this district, where a good aspect and well-sheltered spots are available, the cultivation of the vine may be undertaken, but judgment must be exercised in the selection of varieties to be planted, and cultivation and pruning methods must be adopted that meet the requirements of the colder vine-growing regions.

Other scientists were later to echo his caution.

By the end of the nineteenth century, therefore, Central Otago had shown its potential to ripen varieties of *Vitis vinifera* and make wine from them, but it took over 80 years before a prestige wine industry emerged. The successful cultivation of classical varieties of grapes and the making of wine in Central Otago during the 1860s and 1870s influenced this revival of viticulture a century later. Franklin mentions Jean Désiré Ferraud by name, while newspaper articles about the DSIR trial of the early 1970s quote an Italian viticulturist (undoubtedly Bragato) having said that the area was 'pre-eminently suitable for the growing of wine grapes' without mentioning his caveats.

Central Otago's terrain and sub-regions

With its vines and wineries spread over an area four times larger than the Hawke's Bay wine region and about twice as large as that of Marlborough, Central Otago is the most dispersed of New Zealand's wine regions. Yet Central's area in vines is about one third that of Hawke's Bay and about 7 per cent that of Marlborough. Vines in Central Otago are clustered in what the local winegrowers call sub-regions, some of which are over 100 kilometres apart. Each sub-region has its own distinctive history, style, character and contribution to the story of the evolution of winegrowing here. As the wineries gradually acquire land in several sub-regions, their local distinctiveness erodes, although the quality of their wine may improve as they discover better sites for growing Pinot Noir. The six sub-regions commonly identified are: Wanaka; Gibbston and the Kawarau Valley; Luggate to Cromwell (Clutha and Lake Dunstan right bank); Tarras to Cromwell, including Bendigo (Clutha and Lake Dunstan left bank); Bannockburn; and Alexandra.

The terrain of Central Otago is aptly described as 'basin and range'; valleys of varied widths are separated by substantial mountain ranges. The Clutha and Kawarau rivers and their tributaries provide the network to relate this terrain to the distribution of the region's vineyards and wineries. The Clutha sets the north–south trend. From its source at Lake Wanaka it flows southeast for 20 kilometres before being joined by the

New Zealand Wine: The Land, the Vines, the People



TASTING REPORT: FELTON ROAD, THE HANDSOME PRINCE OF NEW ZEALAND PINOT

September 21st, 2015

If Central Otago was the Côte de Nuits, then Bannockburn would likely be Vosne-Romanée and I'm going to hang it right out and say that Felton Road would be the top gun, the DRC.

The Felton Road Elms Vineyard, winery, office and cellar door all sit right in the pocket of the most consistent stretch of vineyard land in the Central Otago region, consistent in terms of both style and quality. And whilst they may be a lazy 1500-odd years younger than their Burgundian soul mates, they have as many runs on the board as is humanly possible in the time they've been working the land for wine.

And Blair Walter, the winemaker at Felton Road (though I want to find a better title that sums up his all-encompassing oeuvre), operates with the humility and respect that is a reflection of both the man himself and the reverence he has for the land he works with. Don't get me wrong, he can cut loose in the right circumstances, but where wine is on the table he is most often entranced by it.

The success of Felton Road is certainly not all down to Walter though. The fact that someone like Nigel Greening owns the joint cannot be underestimated. Greening is a man whose mind circumnavigates the world of thought at a satellite-like height whilst his oft-bare feet stand firmly on earth. His mind is as inspiringly sharp as it is perfectly offbeat and I've often thought that Felton Road is therapeutic for him, it keeps him grounded.

And then there's Gareth King the resident vineyard whisperer at Felton Road who, alongside Walter, has a keen eye for vine health. If you ever meet King you'll know. He's the dude with the "I'm the luckiest man on the planet" smile. You'll find him in the vineyard. Enough said.

Walter visited Australia recently on an extended tour and I caught up with him in Melbourne to taste some current and new wines, as well as a few back vintages. He's a great presenter. Softly spoken, he talks a brand logic, honesty and humility that is not often seen in the world of winemaking.

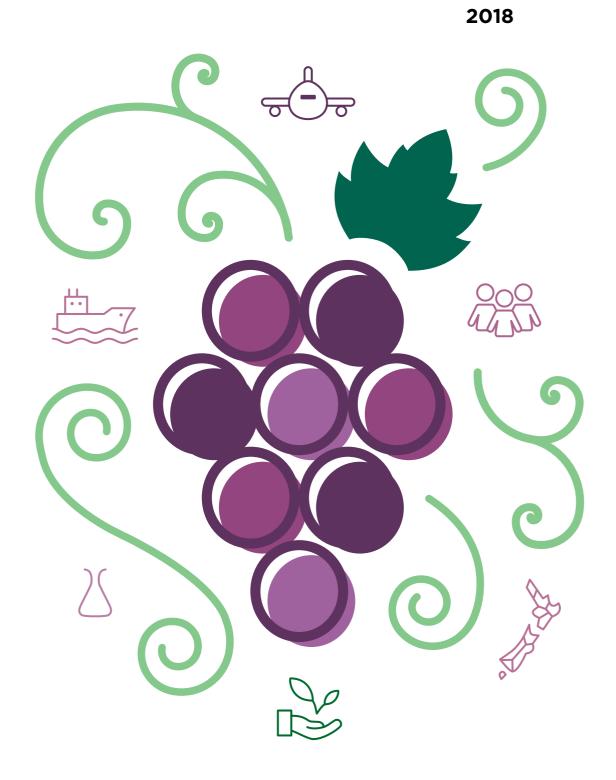
He likes the new wines of 2014, a slightly cooler vintage, where greater definition is the reward in the warmer Bannockburn district of Central Otago. Walter likes these cooler years better than the warmer years (like 2013), he sees the cool edge as giving the wines a kind of x-factor in terms of balance, it sharpens them up.

He regards the recent 2012 vintage as the finest to date for Felton Road, delivering wines with more of a mineral edge, keenly detailed and very precise. The 2014 wines aren't quite as pared back as the 2012s, they're slightly more sweet-fruited and opulent, yet they have clearly defined, precise and complex character.

And whilst I (and no doubt you) have always associated Felton Road foremost with pinot noir and secondly with riesling, I have to confess that since tasting the 2012 Block 2 Chardonnay I've been madly curious about where they're heading with this grape.

The answer is they're moving away from new oak, sticking with full malo-lactic fermentation and they are hitting Chablis-esque notes. Walter brought a vertical of the Bannockburn Chardonnay to the tasting, along with new releases and a vertical of the now maturing Cornish Point Vineyard Pinot Noir.

Contributing Editor Nick Stock is a renowned Australian wine writer, author, presenter and filmmaker who reports on his worldwide wine tasting experiences for JamesSuckling.com



NEW ZEALAND WINEGROWERS INC

Annual

Report



Vision

Around the world, New Zealand is renowned for our exceptional wines

Mission To create enduring value for our members

Purpose

To protect the competitive position of our wine from New Zealand

To support the sustainable and profitable growth of our wine from New Zealand

Activities

Advocacy/Research/ Marketing/Sustainability



NEW ZEALAND WINEGROWERS INC ANNUAL REPORT 2018

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Chair's Report

"We've steadily built a reputation for consistent quality; for wine that is approachable, distinctive and noteworthy; and for a comprehensive commitment to sustainability."

\$1.7 Billion \rightarrow total value of exports



In the year ended 30 June 2018 the value of New Zealand wine exports grew, for the 23rd year in a row, by 2.5% to reach \$1.7 billion.

The secret of our success

We've steadily built a reputation for consistent quality; for wine that is approachable, distinctive and noteworthy; and for a comprehensive commitment to sustainability – which is embedded in our Purpose and everything we do.

These are qualities that resonate with wine drinkers around the world. Those who dig a little deeper discover the secret of that success lies in the intersection of our people, our unique winegrowing places, and our island climate. The lucky ones who come here to experience our flourishing wine tourism offerings leave with a fond appreciation of what makes each glass of New Zealand wine so special.

As a result of this success, New Zealand wine's contribution to the domestic economy is notable. The sector now contributes over 20,000 jobs, and wine tourism is attracting a growing number of high-value tourists to our regions.

Vintage 2018

On the back of plentiful global opportunities, the country's productive vineyard area continues to grow, increasing by an additional 2% to reach 37,969 hectares. Vines planted but not yet producing indicate vineyard area growth of just over 1% for each of the next two years.

With an early start to flowering and a holiday-maker's dream summer, wineries entered 2018 with stocks low, and their fingers crossed for a larger crop after the smaller 2017 harvest.

By the time the vines were bare, the national harvest came in at 419,000 tonnes, 6% above 2017, but down on expectations. Average yield was slightly up at 11.1 tonnes per hectare. Due to increasing demand, wineries will need to carefully manage their stocks to keep their export market customers supplied, and export growth will again be constrained in 2018.

Despite a smaller than anticipated harvest, the favourable growing conditions give us confidence that vintage 2018 will deliver the exciting flavour profiles for which our cool climate New Zealand wines are renowned. Pinot Noir and Merlot each recorded significant production increases under good conditions, which bodes well for our red wines over the coming years.

Charting our future

In 2011, the Board's strategic review of New Zealand Winegrowers identified the need for structural changes to the organisation to better reflect the New Zealand wine industry. The results included: 2016's merger of the New Zealand Grape Growers Council and the New Zealand Wine Institute to form New Zealand Wine Institute to form New Zealand Winegrowers Inc; changes to our levy and governance and management structures; and a clearly articulated vision.

Six years on, with those changes now embedded, the Board decided the time is right for a new strategic review - one with a more outward-looking focus on the future of the industry. Pricewaterhouse Coopers has been engaged with a broad mandate to understand the opportunities and challenges for winegrowers, and help us chart a direction that will best enable us to fulfil New Zealand Winegrowers' mission of creating enduring value for our members. \bigcirc

The New Zealand Wine Awards will have a broad focus, celebrating not just our best wines, but also the people that make our industry so special, and the sustainable practices and beautiful places our wine comes from. The key issues PwC will be exploring – through on-line questionnaires to all members, and in interviews with winegrowers, regional associations, and a range of other stakeholders – include:

- How should the industry celebrate its successes?
- Is there current or future consumer and market value in sustainability? What should the industry's sustainability priorities be?
- What are the major changes and impacts of rapidly changing markets?
- How are business models evolving in the industry and what are the implications?
- At what point will Marlborough be fully planted? How will this impact the industry and markets? What new opportunities and strategies will be available to and/or required of growers and wineries?
- Is there a need for further evolution of the relationship between NZW and regional organisations? What are the options for that?
- What is the impact of the changing market and other conditions on industry research needs? What is the optimal governance structure that should be adopted for the NZW Research Centre?
- How could technology changes and trends impact NZ wine demand and supply?
- What is the impact of potential policy, legislative and regulatory changes on the industry? What pre-emptive actions does the industry need to take to help shape the regulatory agenda?
- What other major risks could impact supply? What is the appropriate response for New Zealand Winegrowers to help prepare for these risks?
- Given the latest trends, supply and demand factors, and other potential risks facing the industry, what are the implications for the role, purpose, priorities, structure, funding and KPIs of New Zealand Winegrowers?

The results of this review should give us insights into opportunities and threats, and steps the industry can take to become more sustainable, stronger, more successful and more resilient.

The first phase of the review – into how the wine industry celebrates success – has already been completed. As a result of members' feedback and the initial report's recommendations, we will host the annual New Zealand Wine Awards in November 2018. These awards will combine the best elements of our previous awards (the former Air New Zealand Wine Awards and the Bragato Wine Awards) into a single event.

The New Zealand Wine Awards will have a broad focus, celebrating not just our best wines, but also the people that make our industry so special, and the sustainable practices and beautiful places our wine comes from.

The full Strategic Review will be completed and reported to the Board in October, with the results then communicated to members in a series of regional meetings around the country.

Building capability

The growth of many sectors across New Zealand's economy means that tourism, construction, hospitality and other primary sector industries are all competing for the same workforce. The Ministry for Primary Industries has predicted New Zealand's primary industries will collectively require an additional 50,000 workers by 2030 to support forecast growth.

This presents a multifaceted challenge for our industry, for which there is no silver bullet.

As part of our Labour Strategy, over the coming months New Zealand Winegrowers will develop a Workforce Capability and Development Plan to identify what we and the industry can most effectively do to help our members attract, retain and train the workers they need. With high national demand for talented staff, and growing international supplier pressure to verify that workers are being properly respected, we anticipate keen interest in the new People Pillar of the Sustainable Winegrowing New Zealand Continuous Improvement programme. In addition to outlining minimum requirements, it describes a range of best practice, sustainable options for ensuring our members have a positive impact on their workers and local communities.

This year we helped secure a welcome increase of 600 in the number of Recognised Seasonal Employer (RSE) scheme positions, bringing the total New Zealand pool of these critical seasonal workers, across all industries. to 11,100. Although there were some challenges in turning that increase into workers in vineyards, indications seem positive that labour will generally be in the right places this winter to complete pruning before spring arrives. We also advocated for changes to make the process for allocating workers more transparent and equitable; an operational review of the RSE scheme is scheduled to begin shortly.

Connect - Inform - Change

That is the motto of the new Women in Wine programme launched at Bragato in August 2017 to provide a network to celebrate, support and grow the role of women in our industry. Board member Katherine Jacobs chairs the initiative, and a national committee has been formed with each region represented.

Most regions have held local events which have been well attended, with attendance increasing as word about Women in Wine spreads.

In June 2018 a Women in Wine Pilot Mentoring programme was launched. The response was very good and eight strong matches have been made around the country. The plan is to roll out the next mentoring programme at the beginning of 2019.

Not welcome here

During the year we learned that the cattle disease, Mycoplasma bovis, had arrived in New Zealand. The government estimates the cost of eradicating this disease will be \$870 million over ten years. If ever the New Zealand primary sector needed a wake-up call to the importance of keeping biosecurity threats out, and of identifying and responding to them, this was it.

In last year's Annual Report we noted that NZW had recently signed the Government Industry Agreement for Biosecurity Readiness and Response (GIA). Under that agreement the wine industry agrees to share the cost of grapevine biosecurity readiness and response activities with the government, in exchange for increased information across the biosecurity system and decision-making rights for readiness and response.

This year, the benefit of the GIA was clear: in March quarantine officers identified hundreds of our most unwanted pest – brown marmorated stink bugs – on several inbound carcarrier ships. They took immediate and appropriate action to minimise or eliminate the risk to growers. In all, four car-carrier ships were diverted or required by MPI to leave New Zealand ports. In each case NZW was kept informed of the risks and responses being taken.

Throughout the year, several other post border detections of this pest were identified and effectively dealt with. NZW's participation in the GIA gives us significantly better ability to participate in decision-making about how biosecurity risks should be managed, ensure that lessons are learned, and better inform and prepare our members.

These detections highlight the need for our growers to be kept up to date of changing biosecurity risks, and to implement biosecurity activities in the vineyard. To support these essential activities, an additional NZW biosecurity staff member will be employed this coming year.

Protecting and promoting open access to markets

A level of biosecurity risk from inbound shipping is an unavoidable consequence of trade. Similarly, a key component of New Zealand's economic risk is the fact we are a small nation of producers and traders sitting at the bottom of the world.

By ourselves New Zealand has little power to influence the shape of the global trading system, yet we are critically dependent on it. The power New Zealand does have is "soft power"; credibility as a leading good citizen in the rules-based trading system that has developed since the Second World War. Unfortunately, that rules-based system, which has protected us from exploitation and bullying by larger economies, now seems under threat.

Although New Zealand wine may not be an immediate or direct target of any trade war, we may suffer some harm. This may come from tariff hikes or non-tariff barriers that are applied to us without cause. It may come from increased global uncertainty closing off potential new growth opportunities. Or it may simply be that our trading partners react to their own trade stresses by becoming more self-centred and protectionist. The fact New Zealand does not have a Free Trade Agreement with either the US or the EU leaves us even more exposed.

On members' behalf, New Zealand Winegrowers is focussed on understanding and anticipating these trade risks to help position the industry to respond if they eventuate:

- We engage with government ministers, politicians and officials to ensure they know of our concerns, and that we expect them to continue New Zealand's role as a leading international advocate of the rules-based trading system;
- We actively support government efforts to deepen international commitment to the rules-based trading system, both through trade agreements such as the CPTPP, agreements with the EU and UK, the Pacific Alliance, and RCEP, and through using those rules – for example, our strong support for New Zealand participation in World Trade Organisation challenges protesting the favourable treatment that Canada gives its domestic wine at the expense of imported wine;
- We promote adherence to a rules-based trading system by working closely with intentional wine regulatory colleagues, both bilaterally and through bodies such as the World Wine Trade Group, the International Organisation of Vine and Wine, the APEC Wine Regulatory Forum, and FIVS; and
- We keep engaged in the domestic trade policy-setting agenda, both on our own and in concert with like-minded parties such as the International Business Forum, of which we are a member.

New Zealand and its wine industry have weathered difficult changes in market regulation and global trading structures before, and ultimately we have prospered from them. New Zealand Winegrowers' engagement on trade matters on behalf of its members will help ensure we can do so again.

Putting it out there

Preparing and distributing timely, accurate information to New Zealand's winegrowers is one of the most important ways we create value for our members. This year, in addition to our monthly newsletter and member website content, we produced and distributed numerous publications including subject guides, market data reports, research reports, factsheets, and one-off alerts. Our 2018 Grape Davs series had record attendance. with over 800 members meeting in three centres. Similarly, our 2017 Bragato conference was well attended and well received. But we are never content to rest on our laurels; if there is a new subject on which you think New Zealand Winegrowers could usefully provide information or guidance to members, let us know.

Wine tourism is booming

A major focus in the Marketing area this year has been the establishment of wine tourism as an activity of focus. 27% of all holiday visitors to New Zealand visit a winery and those that do spend 52% more than average tourists, they stay longer and visit more regions. Overall they spend \$3.8 billion - the challenge is for us to help wineries create products and experiences that mean more of that money flows to our members.

A real focus of our Visit and Education programmes has been the 36 sommeliers that came to two Sommits™ in Nelson and Central Otago – they are currently rolling out their learnings to hundreds of the top sommeliers in their home cities.

Another key achievement this year was a very successful social media campaign around International Sauvignon Blanc Day. This reached 88.8 million social media feeds, an increase of 58% on 2017.

Being straight with our consumers

Because of increasing exports and a smaller 2017 harvest, wine imports to New Zealand increased this year. For a handful of value brands, there was uncomfortable media attention focussed on whether they were being transparent enough about their use of imported wine under a familiar "Kiwi" brand. We supplemented the existing member guidance in our Labelling Guide with a new quide - Representations of origin for wines sold in New Zealand - to highlight legal requirements and best practice to ensure that New Zealand consumers are in no doubt about the regional origins of the wine they are buying.

Representations of origin on wine sold in New Zealand: the key principles

All wine sold in New Zealand must clearly state on the container the country or countries of origin of any of the contents.

For wine labelled as New Zealand wine or bearing a New Zealand registered Geographical Indication:

- 100% of the wine must be from New Zealand
- At least 85% of the wine must be from the region(s), variety(s) and vintage(s) that appears on the label – eg if labelled "2015 Central Otago Pinot Noir", 85% of the wine must be from 2015 Pinot Noir grapes, grown in Central Otago.

Representations of origin, including all of the context, must not be misleading. In other words, they must leave a reasonable consumer with a fair and accurate impression of where the wine is from.

Leading the "UN of wine"

Many members will know Dr John Barker, who for ten years was New Zealand Winegrowers' General Counsel. The New Zealand government has nominated Dr Barker for election as the Director General of the International Organisation of Wine and Vine (OIV) - sometimes called the "UN of Wine" - for the next five years. John's election would make him the first ever non-European leader in the nearly 100 year history of this body; as Director General he would help ensure the organisation can reinforce its position as the trusted vine and wine reference body in a rapidly changing world.

New Zealand Winegrowers and the Ministry of Foreign Affairs and Trade have supported the candidacy throughout an intense campaign in which he visited 27 of the 46 countries that are members of the OIV. More than half of the member states supported John in the first round of the elections, and we wish him every success in the next round in September.

Water and environment

Integral to our focus on sustainability, water - access to it, supply, use and quality - is increasingly becoming an important topic of discussion. The issues raised can be complex, but the story we have to tell as winegrowers is overwhelmingly positive: we use water sustainably; we fertilise sparingly; the quality of water under our vines typically exceeds drinking standards; and we constantly strive to improve the quality and sustainability of our practices. This is a message we will be continuing to emphasise this coming year. Regional councils are required to implement Farm Environmental Management Plan (FEMP) rules by 2025 as a way to monitor and manage water, nutrient, soil, waste and other environmental management outcomes. Because our members already provide detailed environmental data within the audited Sustainable Winegrowing New Zealand system, we will be working with councils to see if we can leverage SWNZ data to satisfy or simplify what growers must do to comply with FEMP rules in the future.

Transforming the grape and wine industry

The New Zealand Winegrowers Research Centre is up and running. Announced in late 2016 with a grant of up to \$12.5m from the government, the research centre is a national grape and wine research centre based in Marlborough, established as a subsidiary of New Zealand Winegrowers.

The Board has moved carefully and deliberately, determining that the research centre must be created as an enduring, sustainable operation to transform the New Zealand grape and wine industry through research, innovation and knowledge transfer.

Mark Gilbert, as the independent Chair, leads the Research Centre Board, and MJ Loza has been appointed as the CEO to lead the centre's management. New research projects are under way, and in coming months we expect to be able to announce details of the work programme for the next few years.

Board changes

In September this year we will hold a NZW Board election for five Levy Class Directors.

It is important that Board members are the people members think will best lead the industry forward. Every member is entitled to vote, and we very strongly urge you to participate. Watch out for voting information in your email inbox at the start of September.

Finally, on behalf of all members, we would like to express our deep gratitude to Steve Green, who stood down as Chair this year after five years chairing the New Zealand Winegrowers Board, and a further four years as Deputy Chair.

As CEO and owner of a winery and vineyard Steve brought across-thespectrum knowledge and firsthand industry experience to the Board and whilst Chair was instrumental in achieving successful Wine and Grape Levy renewals. Steve's inclusive style of leadership played a huge part in enabling the formation of New Zealand Winegrowers Inc. to be achieved with Board and member support. Steve continues to have interests in the industry and we wish him well with these in the future.





Chair

Clive Jones

Deputy Chair

Advocacy

Protecting our members' ability to produce, market and sell competitively.



20,000 workers \rightarrow employed in NZ wine sector 46% women in workforce \rightarrow gender equality Our activities focus on: guidance for members, product integrity standards, government engagement, intellectual property protection, growing our workers, promoting social responsibility, and encouraging free and fair trade.



Doing business competitively

Winegrowers just want to get on with it. But practical and regulatory hurdles can sometimes make the grape to glass journey seem like a steeplechase.

Our New Zealand Winegrowers Advocacy team focusses on identifying what's required for New Zealand's winegrowers to produce, market and sell competitively, and then providing the support, tools, and advocacy for change to make that a reality.

Whether it is rules around grape and wine production and processes, export requirements, labelling, licensing, labour, or a dozen other topics, we endeavour to provide clear and concise guidance to help our members focus on what they do best: growing grapes and making wine.

Perhaps the most visible way we do this is by preparing and regularly updating resources on important matters. This year, coverage included:

- the different laws and regulations governing winemaking practices both domestically and in overseas markets, with the International Winemaking Practices Guide acting as the key reference tool;
- the legal requirements for wine labels, both domestically and in overseas markets, summarised in our New Zealand Winegrowers Labelling Guide;
- health and safety, with the useful Working Well guide which assists members in identifying, managing and communicating health and safety risks in vineyards and wineries;

- Working for You which covers hiring employees and engaging contractors, plus a Know your Contractor section of our member website;
- the legislative and regulatory requirements that need to be considered in establishing a winery or vineyard or selling and distributing wine; clearly summarised in the New Zealand Winegrowers Legal Guide; and
- a range of other useful materials available in the "Compliance" sections of our members' website.

Our team then supplements these resources by responding to daily phone calls and email queries from members, holding seminars on relevant topics, such as our workshops on preparing for changes to the Australian Wine Equalisation Tax scheme, and by using our range of resources and contacts to help reach sensible solutions when we don't know the answer.

Engaging to inform

We also pay careful attention to areas where change is happening or is needed. We meet frequently with members, with key government officials, and with politicians from all parties to discuss developments that might be of interest, or to request and contribute to areas of change, for the benefit of members.

For officials working in areas that relate to winegrowing, this year we ran two field trips to our wine regions. This gave them a chance to better understand our industry's contribution to New Zealand's regions, the practicalities of winegrowing, to meet some winegrowers in person, and to ask questions relevant to their particular areas of work.

This past year, we also made formal written submissions on 30 different New Zealand and overseas government consultations (see page 12), formal oral submissions before several Select Committees and other parliamentary bodies, and made informal contributions in many more areas.

Maintaining standards

In any sector, standards and rules protect both producers and consumers, but they are of little use unless they are enforced. During this year the first ever charges were laid alleging breaches of the 15 year-old Wine Act. Although it is disappointing that breaches have been alleged, we do not see any evidence of systematic non-compliance; rather these prosecutions are a sign that the Wine Act's framework of clear standards strict winemaking record-keeping requirements, and independent audit of compliance is working to provide the rigorous assurances of high quality that the industry and consumers expect.

We are working with the Ministry for Primary Industries to gather better data about Wine Act compliance, so that we can help educate and protect our members by offering more comprehensive and relevant guidance.

Modernising Excise

On 1 October 2018 the new Customs and Excise Act goes live. Customs has run a first class consultation process and we have represented members' interests in many forums and workshops as Customs has tested the new provisions and implications for business. Excise is now part of the Trade Single Window system, speeding up the excise payment process. Movement of goods between Customs Controlled Areas also became easier, the result of Customs and industry working to come up with a business-centred solution.

Wine Export Certification Service

During the year, the Ministry for Primary Industries decided to take over the final step in the process of issuing export approvals for wine consignments under the Wine e-Cert system. That consignment approval step had previously been performed by New Zealand Winegrowers under our Wine Export Certification Services (WECS) contract with MPI.

Although we argued strongly against the change, MPI believes it is necessary to satisfy our export markets that New Zealand's regulatory system is robust. New Zealand Winegrowers worked with MPI to try to ensure a smooth transition.

This coming year, MPI has decided that it will also take in-house most of the telephone and email based query and support services that our WECS team has been providing to wineries – assisting them to make their export consignment requests within Wine e-Cert. We are still negotiating the scope of these changes with MPI, and will ensure members are kept informed. Our trusted WECS team will, however, continue to operate the entire export tasting process, and the random sampling programme.

Restrictions on international trade in wine

Even without the growing uncertainties currently affecting global trade, there have been many other notable developments this year that threaten to fling sand into the machinery of international wine trade.

Pressure has continued in many countries to implement measures such as mandatory health warnings, minimum unit pricing, new certificates of analysis, product inspections, energy and pregnancy labelling, ingredient labelling, and environmental labelling restrictions.

We opposed, or assisted other wine producing countries in opposing, poorly justified proposals in Ireland South Africa, Thailand and China; we made submissions commenting on provisions in several other countries' free trade agreements or their proposed domestic legislation that might affect New Zealand wine exports; and we provided input to the New Zealand Government on its positions in international discussions.

We also worked with individual members to help them understand and resolve overseas market access problems, such as wine being held at the border, denied entry, or requiring relabelling. Where these problems revealed a deeper underlying issue, we worked with the New Zealand Government to try to identify whether the issue can be addressed now, or needs to be solved as part of future trade negotiations.

More positively, at the time of writing, Mexico, Japan and Singapore have already ratified the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). Only three more ratifications are required for the agreement to come into force: we anticipate that New Zealand will ratify before the end of 2018. This would be New Zealand's first free trade agreement with Japan, Canada, Mexico and Peru, and would improve the competitiveness of our access to those markets. Already other countries have expressed interest in joining the CPTPP. Whether or not that happens, the mere fact that others recognise the benefits of belonging to a rules-based Asia/ Pacific trading bloc serves to bolster the global trading system on which New Zealand winegrowers depend so heavily.

In April 2018, Uruguay joined New Zealand, Australia, USA, Canada, Chile, Argentina, South Africa, and Georgia as a member of the World Wine Trade Group. Thanks to the "mutual acceptance" principle of WWTG membership, wine made to New Zealand standards is now automatically eligible for sale in Uruguay, without needing to comply with their domestic winemaking standards.

"Sauvignon Blanc from the country's powerhouse region of Marlborough has led the charge, but there's an increasingly diverse roster of other grape varieties with which to fall in love, as well as other notable wine regions worth exploring on both the North and South Islands."

Joe Czerwinski, Wine Advocate USA



In June, the long-awaited negotiations for a free trade agreement between New Zealand and the European Union began. Our goal is that many of the regulatory irritants in NZ/EU wine trade will be removed during these negotiations. The parallel negotiation of a UK/EU Brexit deal is certain to complicate the NZ/EU negotiations, as is the fact that agriculture will be a key issue between NZ and the EU.

New Zealand Winegrowers has been working to ensure the Government has a detailed understanding of the New Zealand wine sector's interests in the NZ/EU negotiation, and in a future NZ/UK negotiation. We are also working to support a good outcome for wine in other trade negotiations such as the Pacific Alliance.

The flip-side of having a rules-based trading system is that when a country ignores the rules, they should be challenged. New Zealand, along with several other wine producing countries, is currently a participant in two disputes against Canada under the World Trade Organisation's rules. Both of these complaints challenge a range of preferential measures that Canada makes available only to Canadian wine sold in Canada, not imported wine.

Challenging Canada to reclaim the value lost for New Zealand wineries is significant, but equally important is defending the principle: if you are a World Trade Organisation member, then you must abide by its rules. We are hopeful that Canada will agree to modify its rules through discussions during the dispute settlement process. New Zealand Winegrowers is assisting the Ministry of Foreign Affairs and Trade as it participates in these disputes.

Planning for future workforce needs

The new Government has made higher pay and "fairer" working conditions, and other employment changes a priority. It has increased the minimum wage to \$16.50 (and intends to increase it to \$20 by 2021), extended paid parental leave to 26 weeks, and is consulting on other matters including equal pay, the Holidays Act, "fair pay" agreements, exploitation of migrant workers, and updating the government's Health and Safety Strategy. In all these consultations we provide robust submissions to ensure implications for our members are considered.

The New Zealand Winegrowers Labour Strategy has guided our activities in this area over the past year. We have:

- held several meetings with the Minister of Immigration and Workplace Relations and Safety, and with key employment and labour officials to ensure that both the needs of our sector, and the good practices that are already in place are well understood by government;
- succeeded in securing an increase in the maximum number of the Recognised Seasonal Employer workers by 600 to 11,100, and successfully advocated for a review that should make the process for allocating workers more transparent and equitable;
- worked with regional associations to gather accurate data, and to ensure that the RSE cap increase is converted into actual workers, where they are needed in the vineyards;

- refreshed, reprinted and distributed our Working for You Guide; and
- assisted the Primary ITO to promote the Viticulture Apprenticeship.

In an increasingly tight labour market, we are firmly focused on building the reputation of the wine industry as the industry of choice to work and build a career in. To that end, we have begun work on a Workforce Capability and Development Plan to help identify how the industry can best attract, retain and train workers. The plan will help inform our "people" activities over the next three to five years.

Protecting our regional origins

In July 2017, the Geographical Indications (Wine and Spirits) Act 2006 came into force and 18 priority New Zealand wine regions applied to register their wine region names – their "Geographical Indications". New Zealand Winegrowers helped prepare each application, paid \$90,000 of application fees, and helped some regions respond to requests for extra information from the Registrar. Ten of those GIs have now been registered, and examination of the remaining eight is expected to be completed shortly.

As a result, New Zealand has joined the ranks of countries that use wine GIs to give consumers confidence in the regional wine brand. This Act will make it easier to get enforceable protection for these regional identities overseas: recognition for our registered GIs is one of our goals for the NZ/EU free trade agreement negotiations. For some regions, getting their registered GI recognised in China is also likely to be a priority.





A pilot campaign with Uber, Sober Self Bot, encouraged users to plan for a responsible night out, and won media awards for "best use of mobile" and "best creative idea", and was recently showcased at a government industry convention in New York.

Supporting tourism growth

Wine tourism is surging in New Zealand. Over 210 wineries now offer a wine tasting experience, and many offer much more, including a range of tours, accommodation, and food service. For many wineries, these cellar door experiences are a key marketing and sales tool. The inability to charge for tastings under a cellar door off-licence seems both out of kilter with wineries' sense of host responsibility, and also a commercial impediment to delivering a great experience for tourists. So too is the lack of any category of cellar door licence that is well adapted to a business that has other substantial operations, such as a restaurant. These are matters that we will be working with the Government to improve this coming year.

Cheers! to safe and sociable drinking

The Tomorrow Project (TTP) aims to strengthen safe and sociable drinking behaviours. NZW jointly funds and manages the programme with Spirits NZ and the Brewers Association.

Following a strategic review of TTP and its public face, Cheers! (www. cheers.org.nz), we expanded the TTP Board with two new independent Directors, bringing in both a new Chair and a respected emergency medicine specialist. We also employed a fulltime Executive Director to give the initiative greater focus and drive. Under the new strategic plan, Cheers! has hit its stride. Partnerships have been formed with both Uber and Foodstuffs – securing significant additional funding and reach. Cheers!' innovative new campaigns have resonated with their target audiences; if you are over 30 you probably missed most of them, as they were largely social media based and tightly targeted.

A pilot campaign with Uber, Sober Self Bot, encouraged users to plan for a responsible night out, and won media awards for "best use of mobile" and "best creative idea", and was recently showcased at a government/industry convention in New York. We plan to expand that Uber campaign again this year. Our Graze When You Liaise campaign with Foodstuffs has seen that phrase enter the vernacular as a catchy reminder to eat when you drink.

A key touchstone for TTP is that to be successful, behaviour change activities must be evidence-based. To that end, a major research project on New Zealand drinking behaviours and influences is nearing completion. The results will inform the direction and activities of TTP and Cheers! for the coming years.

International meetings 2017-2018

New Zealand Winegrowers attended the following international meetings to directly advocate for the interests of New Zealand wine in key international regulatory and industry bodies:

World Wine Trade Group (WWTG) **Plenary Meeting**

Cape Town, October 2017

FIVS Global Trade Policy Meeting

Cape Town, October 2017

FIVS General Assembly and Global Trade Policy Conference

Brussels, April 2018

WWTG Inter-Sessional Meeting

Vine and Wine (OIV) Expert Group Meetings Paris, April 2018

International Organisation of

Brussels, April 2018

Submissions

New Zealand Winegrowers made or contributed to direct submissions or written policy proposals on many matters, including the following:

International

Protection of Geographical Indications in China

China, August 2017

Geographical Indications in the Mexico-European Union FTA

Mexico, October 2017

Geographical Indications in the Japan-European Union FTA

Japan, October 2017

Pacific Alliance FTA

MFAT, April 2018

UK's Trade Relationship with Australia and New Zealand

UK International Trade Committee, January 2018

Irish Public Health (Alcohol) Bill 2015

TRIS, April 2018

Comprehensive and Progressive Agreement for Trans-Pacific Partnership

FADTC Select Committee, April 2018

NZ/EU Agricultural Trade Talks March 2018

USA and Australian WTO Disputes with Canada

MFAT & MPI, ongoing

Core Trade Group

MFAT, ongoing

WHO Non Communicable Diseases Action Plan

ongoing

WHO Engagement with Non-State Actors ongoing

Domestic

Water Conservation Order for the Ngaruroro and Clive rivers

WCO Tribunal, August 2017

Energy Labelling of Alcoholic Beverages

Food Regulation Standing Committee, August 2017

Review of Cost Recovery for Selected Services

MPI. March 2018

The Future of Tax

Tax Working Group, April 2018

Customs Infringement Notice Scheme

Customs NZ, April 2018

Sale and Supply of Alcohol (Renewal of Licences) Amendment Bill (No 2)

Governance and Administration Select Committee, April 2018

Proposed Food Safety Template for Winemakers

MPI, May & June 2018

Primary Production Select Committee briefing - Sustainability

May 2018

Fuelling Innovation to Transform Our Economy - R&D Tax Credits June 2018

Policy Options for Pregnancy Warning Labels

Food Regulation Standing Committee, June 2018

Proposal to Regulate Organic Production

MPI. June 2018

NZ Health and Safety at Work Strategy 2018-2028

MBIE, June 2018

Mental Health and Addiction Inquiry June 2018

Recognised Seasonal Employer **Operational Review**

MBIE, June 2018

Brexit Technical Advisory Group MPI, ongoing

Industry Reference Group on Cost Recovery

MPI, ongoing

Customs & Excise Stakeholder Group Customs NZ, ongoing

Research

Building a knowledge platform that protects our members' ability to sustainably produce exceptional wines and supports innovation.



77% of vineyards + 46% of wineries have adopted research results (source % of industry participants)



Pests and diseases

Reducing costs, increasing profitability

Sustainability and organics

Quality wine styles for existing and developing markets

Technology transfer



New Zealand's wine industry is one of the youngest in the world, but the 'can-do' attitude of our pioneering winemakers and growers puts in place a solid base for our innovative, world-class industry to flourish.

Key initiatives and results from 2017-2018

New Zealand Winegrowers' active research programme is comprised of more than 20 individual programmes and projects covering all five focus areas. Research reports and articles are updated frequently and can be accessed on the members' website at nzwine.com

Pests and diseases - Vineyard Ecosystems Programme

Objective – To research and understand how management choices affect New Zealand vineyards. The Programme started in 2015 and runs to February 2021.

Total Funding – \$7 million (NZW levy contributed \$3.5 million; co-funded by MBIE Partnership Fund \$3.5 million).

Research - Having successfully passed its mid-term review by government, this work continues its challenge of collecting as much valuable ecological data as possible throughout six seasons in both conventional and chemical-free vineyards. The researchers are looking forward to the comparative analysis of the prodigious amount of data collected in the growing season of 2018, with the hopes of helping the industry move towards chemical-free practices.

New markets and innovation – Lighter Wines Programme

Objective – Position New Zealand as Number 1 in the world for high-quality, lower alcohol and lower calorie wines. The programme started in 2014 and runs to February 2021.

Total funding – \$16.97 million (industry contribution \$8.84 million; co-funded by MPI's Primary Growth Partnership (PGP) \$8.13 million).

Research – Lighter wine sales in New Zealand reached \$32.4 million in retail value in June 2018 and exports continued to grow to \$5 million in FoB value. The high quality of the wine has continued to be noticed around the world, with multiple products now being awarded gold and double gold medals in open competition. The programme has now begun its final two year stretch, where the focus will centre on key market research that will aim to fuel demand for this category.

Quality and profitability – Pinot Noir Programme

Objective – Growing returns through the dissociation of quality from productivity in New Zealand Pinot Noir production. The programme started early this year and runs to February 2023.

Total funding – \$10.3 million (industry contribution \$1 million; co-funded by MBIE Endeavour Fund \$9.3 million).

Research – Defining quality and aiming to improve it presents numerous challenges. Work has commenced on three main research areas: sensory analysis (to identify what consumers are looking for in a high-quality NZ Pinot Noir); chemical analysis (to find what molecules are responsible for these attributes); and viticulture/winemaking research (to identify what management choices can help bring about these characteristics in the final product).



Vision

Transforming the NZ grape and wine industry through research, innovation and extension

Mission

Delivering world-leading research outcomes from grape to glass

Purpose

Research to support the profitable growth of wine from NZ

Research to protect the competitive position of wine from NZ

How New Zealand wine innovates into the future will be a key driver of the New Zealand Winegrowers Research Centre Limited (NZWRC), as it ramps up its activities and moves beyond start-up phase.

Receiving up to \$12.5 million in funding from the Ministry of Business, Innovation and Employment over the next three years, and with support from the Marlborough District Council, the NZWRC has made several key appointments in recent months.

Mark Gilbert was appointed as independent Chair of the NZWRC Board in March 2018, followed by the appointment of MJ Loza as CEO in May 2018. Tracy Benge came on board as Development Manager, and recruitment has started for the Head of Research and Innovation, with the successful candidate hopefully joining before year end 2018.

In June 2018, workplans were submitted to MBIE, completing initial contracting and planning activities.

Industry consultation identified biosecurity, climate change and innovative technologies as research priorities, and these areas are reflected in the research strategy and workplans.

Alongside the Pinot Noir project, which was the first research programme contracted by NZWRC, a project investigating vineyard groundcover and amenity plantings and their interactions with vineyard pathogens has been contracted with Plant & Food Research, and includes a project by a talented PhD student from UC Berkeley. A programme of work looking at impacts of climate change on winegrowing, and adaptation techniques, involving NIWA and AWRI, is also under development.

Wholly owned by NZ Winegrowers Inc., NZW will provide NZWRC with a range of support services.

NZWRC will manage and deliver NZW's levy-funded research programme, alongside NZWRC's portfolio of projects. All research will be guided by industry interests and priorities, overseen by the NZWRC Board, which at year-end comprised Mark Gilbert (Chairman), James Dicey, Philip Gregan (retiring 30 June 2018), Peter Holley, and Dominic Pecchenino.

The 2018/2019 year will see the finalisation of NZWRC's operating processes, research and innovation management systems, partnering agreements with other NZ and international research providers, the confirmation of its location and the commencement of works developing the centre's physical facilities. A research winery will be a key element of the centre's capability, with plans for this to be operational in time for 2020's vintage.

"We all know Marlborough for Sauvignon Blanc, and increasingly for Pinot Noir, but here's a hitherto overlooked but exciting side of this cool region: world class fizz."



Quality wine styles for existing and developing markets

Lighter wines (PGP)

University of Auckland and Plant and Food Research (Various). Jointly funded by NZW and MPI Primary Growth Partnership (PGP) fund.

High-throughput genotyping of transposon-induced mutations in vines

Lincoln University (C Winefield)

Population genomics of the wine spoilage yeast Brettanomyces bruxellensis

Auckland University (M Goddard)

Low alcohol-reduced calorie wines using molecular sponges for sugar removal

University of Auckland (B Fedrizzi)

Shoot trimming effects on Pinot Noir vine leaf area to fruit weight ratio, productivity and fruit composition

Lincoln University

The role of microbes in regional Pinot Noir quality and style

University of Auckland (M Goddard)

Assessment of commercially available yeast nutrient products on Sauvignon Blanc microvin ferments

(K Creasy)

UC Davis collaboration to determine factors that affect colour in Pinot Noir wines when grapes are harvested at lower than target berry soluble solids

Plant and Food Research (C Grose)

Breaking the quality-productivity seesaw in wine grape production (Pinot Noir Programme)

University of Auckland, Plant and Food Research and Lincoln University (Various) – Jointly funded by NZW and MBIE

Exploring the chemical space in Vineyard Ecosystems (VE) Programme juices and wines

University of Auckland (B Fedrizzi)

Untargeted aroma compound chemical analysis of Pinot Noir

Hills Laboratory (R Hill)

Testing the effect of gelatin pre-fermentation fining on ethanol production

University of Auckland (B Fedrizzi)

Pests and dieases

Grapevine trunk disease; young vine ecology, diagnostics and preventative treatments

New Zealand Viticulture Nursery Association Incorporated (VINA) (N Hoskins)

Virus diversity in New Zealand grapevines: sequence, ecology and impact - The Rod Bonfiglioli Scholarship

Plant and Food Research (R MacDiarmid - student A Blouin)

Spray protocols to quantify and optimise spray deposits applied to dormant grapevines (trunks, heads, cordons and canes)

Plant and Food Research (M Walter) Supported by MPI Sustainable Farming Fund as part of the powdery mildew best practice project

Developing powdery mildew best practice in New Zealand vineyards

A Lambourne - Supported by MPI Sustainable Farming Fund

Optimising management of grapevine trunk diseases for vineyard longevity

South Australian Research & Development Institute (M Sosnowski)

Cost reduction/increased profitability

Precision Grape Yield Analyser Programme 2016-2021

Lincoln Agritech Limited (A Werner)

An automated grape yield estimation system – The Rod Bonfiglioli Scholarship

Massey University (M Legg)

Sustainability/organics

Pinot Noir wine composition and sensory characteristics as affected by soil type and irrigation in the Waipara region

Lincoln University

Vineyard Ecosystems Programme

University of Auckland and Plant and Food Research (Various) Jointly funded by NZW and MBIE

Sector weather data licence & tools

HortPlus (NZ) Ltd

Cost efficient optimisation of weed management in vineyards

Thoughtful Viticulture (M Krasnow)

Optimisation of irrigation and water savings in Marlborough Sauvignon Blanc and Pinot Noir and Hawke's Bay Chardonnay and Merlot

Thoughtful Viticulture (M Krasnow)



Research reports 2017/2018

The Pathway of Volatile Sulfur Compounds in Wine Yeast

M Kinzurik - Auckland University

Temporal sensory characterisation of Sauvignon Blanc wines varying systematically in alcohol concentration

B Pineau - Plant and Food Research Limited

Chemical analysis and sensory evaluation of the research Sauvignon Blanc wines produced from the 2015-16 grapevine nutrition trial

B Pineau - Plant and Food Research Limited

New Zealand wine consumers' sensory perception of, and hedonic responses to, Sauvignon Blanc research wines varying in wine style, phenolic content, and/or in the grapevine canopy size at véraison

B Pineau - Plant and Food Research Limited

Continued testing of Saccharomyces cerevisiae and non-Saccharomyces yeast candidates for their potential to reduce final alcohol content in Sauvignon Blanc wine

S Knight and M Goddard -The University of Auckland

Influence of differing mid to late fermentation temperatures on Sauvignon Blanc wine composition in relation to low alcohol wine production

C Grose et al. - Plant and Food Research Limited

Skin contact annual report

D Martin, C Grose and A Albright -Plant and Food Research Limited

Grapevine trunk disease: young vine ecology, diagnostics and preventative treatments

Eline van Zijll de Jong et al.

Powdery Mildew Case Studies -2017-2018

A Lambourne et al.

Weed management in New Zealand vineyards: Reducing and eliminating herbicide use

M Krasnow et al.

Botrytis control in grapevines by mechanical shaking

A Haywood and M Krasnow

Grapevine growth stage monitoring for prediction of key phenological events final report (VineFacts)

R Agnew et al. - Plant and Food Research Limited

Influence of potassium nitrate and calcium thiosulphate fertilisers on mineral content of Sauvignon Blanc petioles, pre-fermentation juice and wine composition

S Neal et al. - Plant and Food Research Limited

Development and deployment of a high throughput genotyping method for identification and characterisation of transposon-induced mutations.

D Lizamore and Dr Winefield – Lincoln University

Vineyard Ecosystems RA 1.1 Annual Report - Vineyard Ecosystems

M Greven et al. - Plant and Food Research Limited

Vineyard Ecosystems RA 1.2 Annual Report - Relating under-vine management, biota and leafroll virus

V Bell et al. - Plant and Food Research Limited

Vineyard Ecosystems RA 1.3 Annual Report – Pathogen Management

D Mundy et al. - Plant and Food Research Limited

Upgrading of wine expert panel and sensory test procedure: outcomes, key insights gained, and perspectives for future research

B Pineau et al. - Plant and Food Research Limited

Canopy manipulations to slow sugar accumulation for the production of lower alcohol wines: Pinot Gris and Merlot Rosé

M Krasnow et al.

Influence of the amount of canopy trimming on Sauvignon Blanc berry maturation, settled juice and wine composition

J Bennett et al. - Plant and Food Research Limited

Alternative Uses of Grape Marc: Literature Review

The Australian Wine Research Institute (AWRI)



Grapevine growth stage monitoring for prediction of key phenological events

R Agnew - Plant and Food Research

Pinot Noir vine performance and grape and wine composition as affected by soil type and irrigation reduction in the Waipara region

G Creasy - Lincoln University

A brief history of DNA testing in vines

D Lizamore - Lincoln University

Powdery project - what's going on?

A Lambourne

Enhancing disease detection with image analysis based on non-visible imaging

K Chooi et al. Plant and Food Research

Bridging the Gap: An Introduction to Quantitative Analysis in the field of Pruning Decision-Making

A Kirk et al.

Brettanomyces in New Zealand

C Curtin and M Goddard - The University of Auckland

Under, On and In Grapevines: Vineyard Ecosystems (Parts 1 and 2)

R MacDiarmid et al. Plant and Food Research and The University of Auckland

Optimising management strategies for grapevine trunk diseases

M Sosnowski et al. SARDI

UC Davis collaboration to determine factors that affect colour in Pinot Noir wines

C Grose et al. Plant and Food Research

What is your leafroll number?

A Blouin and R MacDiarmid - Plant and Food Research

An automated grape yield estimation system

B Parr and M Legg - Massey University, Auckland

Spray protocols to quantify and optimise spray deposits applied to dormant grapevines (trunks, heads, cordons and canes)

M Walter and D Manktelow

Shoot trimming effects on Pinot Noir

G Creasy - Lincoln University

Vine Options for Lighter Wines

New Zealand Winegrowers

Fact sheets

Spray days 2017 Powdery Mildew Self-Assessment

Spray Days - Assessing Spray Coverage Spray Days - Canopy Management

"Perhaps no other wine style is as instantly recognizable as New Zealand Sauvignon Blanc.... it put New Zealand wine on the map in all its brash, aromatic and crisply-acidic glory. Today, it's one of America's most popular sippers, renowned for consistency and affordability."

Christina Pickard, Wine Enthusiast Magazine, USA

Information Resources

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333

New Zealand Winegrowers information resources are highly valued by our members.



99% \rightarrow wineries measure + monitor energy use 98% \rightarrow monitor to optimise water



A core function of New Zealand Winegrowers is the provision of up-to-date information delivered in a timely manner to members, trade, media and consumers.

All of the information published by New Zealand Winegrowers is available online at either nzwine.com or nzwine.com/members

New Zealand Winegrowers also produces a wide range of printed publications, brochures and promotional items, ranging from spray schedules to varietal sales guides.

Industry Reports and Statistics

Monthly New Zealand Wine Export Report

Monthly Export Statistics

Monthly Domestic Market Reports

New Zealand Wine Industry Key

Performance Indicator Snapshots

Vintage Survey Reports and Indicators

New Zealand Winegrowers Vineyard Spray Schedule

Vineyard Register Report

Viticulture Financial Benchmarking Programme

Sustainable Winegrowing New Zealand Reports

Labelling and International Market Access

International Labelling Guide (27th Edition) May 2018

International Labelling Matrix Guide Poster (26th Edition)

Representations of origin for wines sold in New Zealand

Vineyard, Winemaking and Cellar Door Practices

International Winemaking Practices Guide (11th Edition) June 2017

Labour/Health and Safety/Legal

Working For You

Working Well - New Zealand Winegrowers and Worksafe New Zealand

Legal Guide - New Zealand Winegrowers and Bell Gully

Marketing and Communication

What's Fermenting – monthly e-newsletter to members

New Zealand Winegrower Magazine - published by Rural News Group Ltd under Authority of New Zealand Winegrowers

New Zealand Winegrowers Post Event and Seminar Reports

New Zealand Wine Promotional Material (Varietal and Regional Guides, Maps, Promo Items etc) – available for purchase

New Zealand Wine Educational Textbook (available in Mandarin & English)

New Zealand Wine Overview Presentation

Guides to market (Australia, Canada, USA, Germany, The Netherlands, Sweden, UK)

Jean Smullen's Ireland Market Report

Debra Meiburg's Guide to the Wine Trade (Beijing, Hong Kong, Shanghai, Singapore, Taiwan)

Pricing Calculators (Australia, Canada LCBO & BCLDB, UK, China, Germany, Japan, Sweden, The Netherlands, Singapore)

Euromonitor Country Market Reports for 18 Countries

Nielsen Scantrak Data Reports (UK)

Wine Intelligence Chinese Wine Market Landscape Report

Sustainability

Creating and communicating a legacy of sustainability.



98% \rightarrow New Zealand's vineyard area is Sustainable Winegrowing New Zealand certified

A highlight of the year was recognition of the Sustainable Winegrowing NZ (SWNZ) programme at both national and international award ceremonies.



SWNZ scoops awards

SWNZ received a special judge's commendation in the Communicating for Change category at the NZ Sustainable Business Network awards in November. The commendation highlighted SWNZ's in-season reporting and the effort undertaken to communicate relevant information to members on a timely basis. The focus of the reporting is to enable growers to make any changes to their spray plans during the season based on benchmarking reports.

In October, UK-based The Drinks Business Green Awards chose the SWNZ programme as their Green Initiative of the Year. In a highly contested category of the most ethical and environmentally-friendly companies in wines, beers and spirits, SWNZ was recognised for a programme that encompassed the best of efficient and effective sustainable practices.

These awards reinforce the reputation of SWNZ as the world leading sustainability programme for the wine industry.

Spray Diary

For the 2017/18 season, a rates calculator was provided in our Grapelink spray diary software to deliver guidance to members around spray application rates. The calculator is designed to assist members adjust from a land-based per hectare spray rate to an adjusted rate that accounts for different row spacing and canopy density and avoids under or over spraying. From the introduction in October to the end of December. 43% of entries were at the new adjusted rate, up from 25% of entries for the corresponding time in 2016. This reflects a significant change, with the industry moving away from application rates per hectare.

Vinefacts

Vinefacts is a service that gives weekly in-season weather and phenology information to members. For the 2017/18 season it was provided free of charge to all New Zealand Winegrowers members through SWNZ. Feedback on the value of the service was extremely positive and over 2000 downloads of the reports were registered weekly, when each issue was released through the nzwine.com website.

Growing importance of sustainability

This year members of the Marlborough Grape Producers Cooperative (MGP) joined the SWNZ programme. A series of workshops was held with the group to ensure they knew requirements and to assist both MGP and SWNZ in the smooth on-boarding and pre-harvest audit of these new members.

A strong lineup of speakers at the annual Bragato conference highlighted the importance of sustainability. Topics covered included the long term strategic value associated with being a globally trusted source of sustainably produced products, the high sustainability standards required and the integration of sustainability into brand messaging.

The SWNZ Continuous Improvement programme (SWNZ CI) was launched last year as an extension to the SWNZ programme. The pilot has been extended for a further 12 months as interested SWNZ members work with their organisations to determine their sustainability goals and action plans for how to reach them. The waste pillar is popular with a number of wineries interested in reducing their waste to landfill. A 'winery waste' group was established in May and has met twice already to share issues and insights to achieve their waste reduction goals.



Biosecurity - ensuring healthy vineyards

Mitigating biosecurity risk is fundamental to the sustainability of the New Zealand wine industry.

In February 2018 the Board reconfirmed the objectives of the New Zealand Winegrowers Biosecurity Strategy and approved new targets to be achieved by the end of calendar year 2019. These targets will guide our ongoing activity over the next 18 months. Consistent with these targets, New Zealand Winegrowers will recruit an extra biosecurity team member in the coming year to enable us to maximise protection to the industry.

Managing the risk of brown marmorated stink bug (BMSB) has remained a high priority this year. In July 2017 NZW signed the BMSB Operational Agreement; partnering with other industry organisations and MPI to help improve readiness for this unwanted pest. In October 2017, New Zealand Winegrowers visited Santiago Chile to learn more about establishing a lure-based surveillance grid for detecting BMSB in an urban environment. Similarly, NZW has been heavily involved in the EPA application to allow the import of samurai wasp, a BMSB biocontrol, into secure containment for release in the event of an incursion. NZW presented at a hearing on this application in July. Consistent with the submissions made by New Zealand Winegrowers, MPI has also significantly strengthened measures at the border to prevent entry of this pest. This readiness work is important as BMSB pressure at the border is at an all-time high. There were over 250 interceptions during

the 2017/18 high-risk season including four interceptions that were detected post-border.

There have been no major biosecurity responses that have directly impacted the wine industry in the last 12 months. Nonetheless, the harlequin ladybird, a potential threat to wine quality at harvest time, continued its spread throughout New Zealand's wine regions. This pest is now well established in Gisborne and Hawke's Bay and has been detected in Nelson and Marlborough. Developing management advice to help deal with this pest will be a key priority over the coming year.

Throughout 2017/18 we have also focused on maximising member awareness of potential biosecurity threats and their participation in biosecurity activities to mitigate risk. Regular biosecurity columns on the members' website and in a range of national and regional industry publications have helped raise awareness that everyone involved in the wine industry has a role in protecting industry biosecurity.

In late 2017 New Zealand Winegrowers launched our Vineyard Biosecurity Guidelines for Best Practice, which contains practical advice to assist members to protect their vineyard assets. Furthermore, in June 2018 New Zealand Winegrowers joined the National Biosecurity Capability Network (NBCN). The NBCN is a key element of the New Zealand biosecurity system, a network of organisations that join together to respond to biosecurity incursions. Joining the NBCN will be a catalyst for the wine industry to develop an industry specific network of biosecurity champions that promote biosecurity awareness, response training and best practice. Further work to develop this network will be a key priority for the year ahead.

At the 2018 Grape Days we engaged with over 800 members on mitigating biosecurity risks posed by BMSB, the harlequin ladybird and grapevine red blotch disease. We also launched a New Zealand Winegrowers fact sheet that outlined the potential risk of grapevine red blotch and highlighted the importance of vineyard surveillance as we approach vintage 2019.



Submissions made to Government in 2018

12 June 2018

Proposed changes to the Import Health Standard for Vehicles, Machinery and Equipment

21 May 2018

EPA application APP203336 to seek pre-approval to release Trissolcus Japonicus (the Samurai Wasp) as a biocontrol agent for BMSB

21 March 2018

A review of cost recovery for selected services provided by the Ministry for Primary Industries

29 January 2018

Proposed Import Health Standard for vehicles, machinery and equipment

"What impressed me most about the Kiwis is their deep love and respect for the land, and how we are only keepers of it, passing it on to the next generation. Sustainability is second-nature, and being carbon-zero and certified bio is something that everyone strives for, not to market their wines better but just because it's the mindset of the people."

Yeo Xi-Yang, Sommelier, The Lo and Behold Group, Singapore

Marketing

Developing and supporting the growth of the New Zealand wine brand.



 $27\% \rightarrow$ international visitors visit a winery. The wine tourist spends 52% more + stays six days longer than the average tourist.

Wine Tourism 2017-2018



Number of international wine tourists

712,135

Spending by wine tourists

\$3.8 billion

Source NZIER/MBIE - Year to June 2017



The wine tourist spends more than the average holiday visitor by



International visitors that went to a winery

27%



The New Zealand wine tourist stays

6 days

longer than the average holiday visitor and visits more regions -4.6 versus 3.5 regions

Source IVS *3 YE Dec 2016



wineries offer a total of

wine tourism experiences

on nzwine.com/visit



- 69 STAY experiences
- 47 PLAY experiences

who golfed also visited a winery

who cycled also visited a winerv

Propensity of the top international visitor markets to visit a winery

41% USA

26% Australia

21% China

Source TNZ/IVS - YE Dec 2017

"Always friendly, never pretentious, the Kiwis share an endearing down-to-earth trait and somehow I feel I've got closer to the earth, as a result. I've learnt a lot about sustainability, organics and biodynamics during my visit, but so much of it seems so simple. It's charming. I'm smitten."

David Kermode, www.vinosaurus.co.uk, UK

International Visitor Programme 2017–2018



International Education Programme 2017-2018



92

Seminars, masterclasses, education programmes and self-pours in 18 markets

> 25 in the USA 7 in Canada 16 in the UK & Ireland 13 in Europe* 22 in Asia* 9 in Australia

"Sommit was without a doubt the most incredible experience of my professional life. Not only was it fun and informative and adventurous, it personified the New Zealand wine industry through gracious hosts, serious winemakers and a level of playful uniqueness that won't ever be forgotten."

Anthony Pieri, Group Sommelier Apples + Pears Entertainment Group, Australia



Thanks to our partners













USA

Marketing programme

Seminars: <mark>25</mark> Trade/media visitors: <mark>17</mark>

O User pays events

Events: 10 Trade/media: 751 Consumers: 2000+ Wineries showcased*: 471 Wines*: 1,188







UK & Ireland

• Marketing programme Seminars: 16 Trade/media visitors: 11

User pays events
 Events: 5
 Trade/media: 716
 Consumers: 1853
 Wineries showcased*: 174



Wines*: 864





Europe

Marketing programme Seminars: 13 Trade (modia vicitors: 3

Trade/media visitors: 3

O User pays events

Events: 4 Trade/media: 60,997 Consumers: 168 Wineries showcased*: 100 Wines*: 547







Australia

- Marketing programme Seminars: 9 Trade/media visitors: 15
- O User pays events

Events: 6 Trade/media: 95 Consumers: 140 Wineries showcased*: 84 Wines*: 203







* Calculated per event, some wineries/wines counted more than once.

Asia

 Marketing programme Seminars: 22 Trade/media visitors: 11

User pays events
 Events: 5
 Trade/media: 18,587
 Consumers: 928
 Wineries showcased*: 60
 Wines*: 472



Wine Awards



Bragato Wine Awards 2017

Bragato Trophy for Champion Wine of the Show

The Boneline Cabernet Franc 2016 Canterbury Vineyard: Waipara West Grower: Lindsay Hill

Mike Wolter Memorial Trophy for Champion Pinot Noir

Ruby Bay Pinot Noir 2016 Nelson Vineyard: Ruby Bay Vineyard Grower: Andrew Tamplin

Alan Limmer Trophy for Champion Syrah

Coopers Creek SV 'Chalk Ridge' Syrah 2015 Hawke's Bay Vineyard: Chalk Ridge Grower: Wayne Morrow

O-I New Zealand Trophy for Champion Emerging Red Wine

The Boneline Cabernet Franc 2016 Canterbury Vineyard: Waipara West Grower: Lindsay Hill

Tom McDonald Memorial Trophy for Champion Classical Red Wine

Saint Clair James Sinclair Cabernet Merlot 2015 Hawke's Bay Vineyard: Plateau Vineyard Grower: Neal & Judy Ibbotson

Richard Smart Trophy for Champion Rosé

Clark Estate Dayvinleigh Rosé 2017 Marlborough Vineyard: Dayvinleigh Grower: Kevin Johnston

New Zealand Frost Fans Trophy for Champion Sweet Wine

Villa Maria Reserve Noble Riesling Botrytis Selection 2015 Marlborough Vineyard: Rocenvin Vineyard Grower: Christine Fletcher

Glengarry Trophy for Champion Sparkling Wine

Akarua Vintage Brut 2011 Otago Vineyard: Cairnmuir Road Grower: Mark Naismith

Friedrich Wohnsiedler Trophy for Champion Riesling

Waipara Hills Soul Deans Riesling 2015 Canterbury Vineyard: Deans Vineyard Grower: Accolade Wines

Brother Cyprian Trophy for Champion Pinot Gris

Devil's Staircase Pinot Gris 2016 Otago Vineyard: Rockburn Wines Ltd Grower: Chris James, Richard Bunton, Paul Halford

Nick Nobilo Trophy for Champion Gewürztraminer

Bladen Gewürztraminer 2016 Marlborough Vineyard: Paynters Road Vineyard Grower: Keven and Kerry Tilly

O-I New Zealand Trophy for Champion Emerging White Wine

Askerne Viognier 2016 Hawke's Bay Vineyard: Askerne Grower: Kathryn and John Loughlin

Spence Brothers Trophy for Champion Sauvignon Blanc

Konrad Single Vineyard Sauvignon Blanc 2016 Marlborough Vineyard: Konrad Wines Grower: Konrad Hengstler

Bill Irwin Trophy for Champion Chardonnay

Domaine Rewa Chardonnay 2015 Otago Vineyard: Domaine Rewa Grower: Philippa Fourbet



Air New Zealand Wine Awards 2017

Air New Zealand Champion Wine of the Show

Isabel Chardonnay Marlborough 2016

O-I New Zealand Reserve Wine of the Show

Dashwood Pinot Noir Marlborough 2016

JF Hillebrand New Zealand Champion Pinot Noir

Dashwood Pinot Noir Marlborough 2016

Label and Litho Limited Champion Sauvignon Blanc

Goldwater Sauvignon Blanc Wairau Valley Marlborough 2017

Rabobank Champion Chardonnay

Isabel Chardonnay Marlborough 2016

Dish Magazine Champion Open Red Wine

Dashwood Pinot Noir Marlborough 2016

Bayleys Real Estate Champion Merlot, Cabernet and Blends

Villa Maria Cellar Selection Organic Merlot Hawke's Bay 2016

Fruitfed Supplies Champion Syrah

Coopers Creek Reserve Syrah Hawke's Bay 2016

Guala Closures New Zealand Champion Pinot Gris

Saddleback Pinot Gris Central Otago 2017

New World Champion Open White Wine

Goldwater Sauvignon Blanc Wairau Valley Marlborough 2017

New Zealand Winegrowers Champion Sweet Wine

Forrest Botrytised Riesling Marlborough 2016

Plant & Food Research Champion Riesling

Mount Riley Riesling Marlborough 2017

Quay Connect Champion Other White Styles

Nautilus Albariño Marlborough 2017

Riedel New Zealand Champion Gewürztraminer

Lawson's Dry Hills Gewürztraminer Marlborough 2016

WineWorks Champion Sparkling Wine

Aotea by the Seifried Family Méthode Traditionnelle Nelson NV

New Zealand Winegrowers Champion Exhibition White or Sparkling Wine

Isabel Wild Barrique Chardonnay Marlborough 2016

New Holland Agriculture Champion Exhibition Red Wine

Falcon Ridge Estate Syrah Nelson 2016

"Impressed with how many grape varieties are grown successfully in the country and how the vein of freshness prevails across varietals. I appreciated the thoughtful regional pride; there was a general awareness of the larger world of wine both in New Zealand and abroad that informs the framework of what individuals are creating in their respective regions."

Lauren Collins Daddona, Wine Director, Les Sablons, USA



Financials

New Zealand Winegrowers Incorporated is the industry organisation of and for the wine makers and grape growers of New Zealand. Our mission is to create enduring value for our members.

These are the accounts for New Zealand Winegrowers Incorporated and its subsidiaries, NZW Wines Limited Partnership and New Zealand Winegrowers Research Centre Limited.

Operating income includes the grape and wine levies. These are used to fund marketing, research, sustainability and advocacy activities.

User Pays activities includes marketing events in New Zealand and overseas, the Sustainable Winegrowing New Zealand programme, provision of the Wine Export Certification Service and the Romeo Bragato Conference.

New Zealand Winegrowers Research Centre has been established to provide world-leading science, research and innovation to benefit New Zealand's entire grape and wine industry.

NZW Wines Limited Partnership's activity is research into production and other aspects of lower alcohol and lower calorie wine. New Zealand Winegrowers reserves policy is to hold reserves at a level of \$3 million (a biosecurity reserve of \$1 million and \$2 million to cover income reduction in the event of a small vintage) in addition to a user pays reserve of \$440,000. New Zealand Winegrowers is currently actively managing its future expenditure to bring reserves to that level, by funding ongoing activity that targets our strategic objectives.

The financial information presented below has been extracted from the audited financial statements of New Zealand Winegrowers Incorporated for the year ended 30 June 2018.

High-level breakdown

Year to 30 June 2018

\$20.8m **1** 2% Expenditure \$6.8m ↓ 20% Reserves

Operating Income and Reserves Summaries





Breakdown of expenditure by objective

Key Achievements	Levy	Non Levy
Research & Innovation		
24 projects funded	\$2.6m	\$4.4m
NZW Research Centre Ltd now operating	↑4%	↑86%
International Marketing & Tourism		
60 international trade & media	\$2.7m	\$1.6m
30 in-market events	√ 11%	-
92 in-market seminars		
Administration		
Strategic review initiated	\$1.7m	\$0.1m
	↑ 11%	↑ 2011%
Events in New Zealand		
Air New Zealand Wine Awards	\$0.07m	\$1.3m
Sommelier Sommits™	↓ 18%	↓64%
Bragato Wine Awards		
Sustainability & Capability		
Sustainable Winegrowing Programme	\$0.9m	\$0.7m
Women in Wine & Support for Young Vit & Young Hort	↑ 51%	↓ 12%
Bragato Education Trust donation		
Member Information		
800 attended Grape Days	\$1.2m	\$0.5m
Romeo Bragato Conference	↑ 46%	↑2%
Vinefacts		
Regions		
Regional Membership Council	\$1.0m	
Regional funding	↑ 3%	
Contestable Fund		
International Trade (Advocacy)		
Attendance at FIVS, WWTG, OIV, APEC meetings	\$0.4m	\$0.3m
OIV - Director General Election Campaign	↓22%	↓ 3%
12 International Submissions & Policy Proposals		
Domestic Trade (Advocacy)		
Labour Strategy & RSE	\$1.1m	
Cheers!	↑ 18%	
18 Domestic Submissions & Policy Proposals		
Biosecurity	¢0.0	
Revised Biosecurity Strategy adopted	\$0.2m	
BMSB operational agreement signed	↑8%	
Total	\$11.9m	\$8.9m
	↑6%	↓ 3%
Total Expenditure		\$20.8m
		↑ 2%

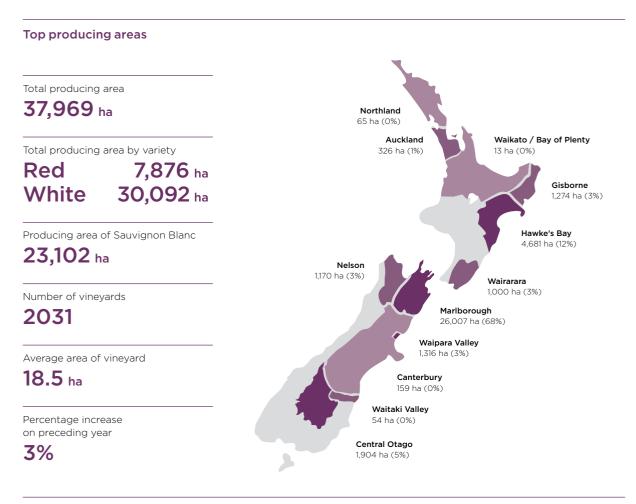
Statistics

On the back of plentiful global opportunities, the country's productive vineyard area continues to grow, increasing by an additional 2% to reach 37,969 hectares.



243 cellar doors throughout NZ drive more visitors to the regions → Vineyards and wineries are key participants in regional growth.

A snapshot of the New Zealand wine vineyard 2018



Top producing varieties

Pinot Noir 72%	Malbec 2%	\square	Sauvignon Blanc 77%	Riesling 2%
Merlot	Cabernet Franc		Chardonnay	Gewürztramine
15%	1%		11%	1%
Syrah	Other		Pinot Gris	Other
6%	2%		8%	1%
Cabernet Sauvignon				
3%				

Summary of New Zealand Wine

(2009-2018)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of wineries	643	672	697	703	698	699	673	675	677	697
Number of growers	1073	1128	853	824	835	858	762	747	726	699
Producing area (hectares)	31,964	33,200	34,500	35,337	35,182	35,510	35,463	36,226	36,943	37,969
Average yield (tonnes per hectare)	8.9	8.0	9.5	7.6	9.8	12.6	9.1	12.0	10.7	11.1
Average grape price (NZ\$ per tonne)	1,629	1,293	1,239	1,359	1,688	1,666	1,732	1,807	1,752	N/A
Tonnes crushed (thousands of litres)	285	266	328	269	345	445	326	436	396	419
Total production (millions of litres)	205.2	190.0	235.0	194.0	248.4	320.4	234.7	313.9	285.1	301.7
Domestic sales of NZ wine (millions of litres)	59.3	56.7	66.3	64.6	51.7	49.9	61.9	56.2	52.1	52.7*
Consumption per capita NZ wine (litres)	13.9	13.0	15.2	14.7	11.6	11.2	13.7	12.2	11.0	10.9*
Total domestic sales of all wine (millions of litres)	92.7	92.1	93.9	91.9	92.5	90.6	96.0	93.4	92.0	92.7*
Consumption per capita all wines (litres)	21.5	21.1	21.3	20.9	20.8	20.3	21.2	20.2	19.5	19.2*
Export volume (millions of litres)	112.6	142.0	154.7	178.9	169.6	186.9	209.4	213.4	253.0	255.1
Export value (millions of NZ\$ FOB)	991.7	1,041	1,094	1,177	1,210	1,328	1,424	1,570	1,663	1,705

N/A - Not yet available

* Estimate only

"So even though many people throughout the world are becoming more interested and active in sustainability, in New Zealand it feels more natural that they just want to do right by the land so future generations will be better set up."

Alyssa Vitrano, Grapefriend.com, USA

New Zealand Winegrowers membership

(2009-2018)

Wineries by size ¹	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Small	577	605	697	622	617	611	587	581	582	603
Medium	60	61	60	71	71	65	69	78	77	77
Large	6	6	6	10	10	23	17	16	18	17
Total	643	672	697	703	698	699	673	675	677	697

¹ From 2008: Small—annual sales not exceeding 200,000 litres Medium—annual sales between 200,000 and 4,000,000 litres Large—annual sales exceeding 4,000,000 litres

Wineries by region	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Northland	14	14	15	16	13	15	14	15	16	17
Auckland	109	111	117	118	116	114	111	110	109	102
Waikato/Bay of Plenty	20	21	17	15	13	13	12	9	8	10
Gisborne	24	26	24	24	21	19	18	18	18	17
Hawke's Bay	79	85	91	84	77	76	75	76	79	91
Wairarapa	61	63	64	64	65	67	67	68	64	69
Nelson	34	36	38	36	38	37	35	36	36	38
Marlborough	130	137	142	148	152	151	140	141	139	141
Canterbury/Waipara	62	61	66	68	70	66	67	64	65	67
Central Otago	103	111	115	120	124	132	127	133	137	136
Waitaki Valley										4
Other Areas	7	7	9	10	9	9	7	5	6	5
Total	643	672	698	703	698	699	673	675	677	697

Grape growers by region	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Auckland/Northland	38	44	17	9	11	11	10	5	4	3
Waitkato/Bay of Plenty	13	11	2	2	2	0	0	0	0	0
Gisborne	89	87	57	54	53	48	41	41	36	33
Hawke's Bay	172	171	122	103	104	102	74	71	65	62
Wairarapa/Wellington	44	48	24	24	30	17	14	15	17	13
Nelson	57	62	39	38	40	52	38	36	37	35
Marlborough	524	568	544	551	548	581	535	534	519	510
Canterbury/Waipara	61	60	13	8	14	15	18	14	14	9
Central Otago	75	77	35	35	33	32	32	31	33	33
Waitaki Valley									1	1
Total	1,073	1,128	853	824	835	858	762	747	726	699

Grower Membership has previously been reported as Otago, now split into Central Otago and Waitaki Valley.

New Zealand producing vineyard area

(2009-2018)

By grape variety (ha)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018**
Sauvignon Blanc	16,205	16,910	16,758	20,270	20,015	20,029	20,497	21,400	22,230	23,102
Pinot Noir	4,777	4,773	4,803	5,388	5,488	5,509	5,514	5,519	5,572	5,653
Chardonnay	3,911	3,865	3,823	3,229	3,202	3,346	3,117	3,116	3,114	3,163
Pinot Gris	1,501	1,763	1,725	2,485	2,403	2,451	2,422	2,439	2,369	2,447
Merlot	1,369	1,371	1,386	1,234	1,255	1,290	1,239	1,198	1,211	1,186
Riesling	979	986	993	770	787	784	767	753	721	707
Syrah	293	297	299	387	408	433	436	426	439	435
Cabernet Sauvignon	517	519	519	305	301	289	275	253	249	249
Gewürztraminer	311	314	313	347	334	376	277	242	229	227
Malbec	156	157	157	140	142	127	129	119	121	119
Sauvignon Gris***							104	113	109	101
Viognier***							129	119	97	94
Cabernet Franc	163	161	161	119	119	113	109	99	91	95
Other varieties	1,782*	2,312*	2,723*	661	728	764	448	430	391	391
Total	31,964	33,428	33,660	35,335	35,182	35,511	35,463	36,226	36,943	37,969
By region (ha)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018**
Auckland/Northland	543	550	556	411	414	392	403	387	387	391
Waikato/Bay of Plenty	147	147	147	24	24	25	16	3	13	13
Gisborne	2,149	2,083	2,072	1,635	1,599	1,915	1,440	1,350	1,246	1,274
Hawke's Bay	4,921	4,947	4,993	5,030	4,846	4,774	4,638	4,641	4,615	4,681
Wairarapa	859	871	882	979	991	995	1,003	1,005	932	1,000
Marlborough	18,401	19,295	19,024	22,956	22,819	22,907	23,452	24,365	25,244	26,007
Nelson	813	842	861	1,011	1,095	1,123	1,141	1,135	1,093	1,170
Canterbury/Waipara	1,763	1,779	1,809	1,371	1,435	1,488	1,428	1,419	1,472	1,475
Central Otago	1,532	1,540	1,540	1,917	1,959	1,932	1,942	1,880	1,886	1,904
Waitaki Valley								41	55	54
Other & Unknown	836*	1,374*	1,516*							
Total										

* Total corrected to account for assumed vineyard survey underestimation ** Projections submitted in the 2017 Vineyard Register Source: New Zealand Winegrowers' Vineyard Surveys / Vineyard Register

New Zealand vintages

(2009-2018)

Industry total*	285,000	266,000	328,000	269,000	345,000	445,000	326,000	436,000	396,000	419,000
Survey total	282,447	263,445	324,591	263,944	336,337	429,669	312,387	420,356	382,409	404,399
Arneis				163	220	336	268	257	239	152
Pinotage	694	467	476	292	400	425	494	374	145	153
Alberino										162
Semillon	1,667	1,362	689	596	721	507	425	466	249	385
Grüner Veltliner						341	228	276	253	329
Viognier	784	854	781	839	519	1,148	720	771	266	444
Cabernet Franc	735	552	488	414	421	582	485	616	373	350
Other Reds	262	602	556	307	262	537	457	677	401	456
Muscat Varieties	1,505	793	550	578	634	455	301	329	450	323
Malbec	972	761	764	694	825	1,135	586	483	697	782
Other Whites	865	848	898	618	1,052	1,646	1,294	727	824	250
Sauvignon Gris								1,182	944	1,080
Cabernet Sauvignon	2,304	2,203	1,667	1,120	1,465	1,742	1,376	1,537	974	1,169
Gewürztraminer	2,123	1,556	1,836	1,249	1,788	2,264	1,761	2,221	1,047	976
Syrah	1,500	2,112	1,741	1,431	2,240	2,178	1,497	1,756	1,733	2,216
Riesling	6,316	5,416	6,118	4,989	5,932	6,013	4,535	5,937	3,880	3,776
Merlot	11,723	8,885	9,092	8,046	10,076	10,756	9,397	9,321	7,714	10,623
Pinot Gris	11,410	12,810	17,787	15,347	22,042	23,880	19,707	24,892	20,755	22,824
Chardonnay	34,393	26,322	25,580	22,855	27,184	28,985	27,015	29,162	26,843	26,371
Pinot Noir	27,547	23,655	31,156	23,285	31,775	36,499	25,763	35,661	28,760	35,095
Sauvignon Blanc	177,647	174,247	224,412	181,121	228,781	310,240	216,078	303,711	285,862	296,573
By Grape Variety (tonnes)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018

By Region (tonnes)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Northland	148	178	111	92	130	210	203	92	121	113
Auckland	1,615	1,325	1,464	1,220	789	1,392	824	1,267	934	787
Waikato/Bay of Plenty	202	118	51	7	12	63	ND	18	ND	ND
Gisborne	23,093	18,316	14,450	15,590	15,567	16,192	17,280	15,944	16,337	13,000
Hawke's Bay	40,985	38,860	35,533	32,793	38,829	44,502	36,057	42,958	33,679	41,061
Wairarapa	4,421	3,942	3,598	4,271	4,798	5,743	3,559	5,049	3,822	4,592
Marlborough	192,128	182,658	244,893	188,648	251,630	329,571	233,182	323,290	302,396	313,038
Nelson	7,740	5,963	7,854	6,129	7,777	10,494	6,777	10,028	8,540	9,120
Canterbury/Waipara	5,476	5,870	9,485	7,079	8,348	10,962	5,395	12,170	8,240	11,157
Central Otago	6,218	6,196	7,104	8,115	8,407	10,540	8,951	9,177	8,324	11,358
Waitaki Valley										170
Other	421	19	48		50		159	363	16	3
Survey total	282,447	263,445	324,591	263,944	336,337	429,669	312,387	420,356	382,409	404,399
Industry total*	285,000	266,000	328,000	269,000	345,000	445,000	326,000	436,000	396,000	419,000

* The data shown are the results from the New Zealand Winegrowers' Annual Vintage Survey, whereas "Industry Total" represents the tonnes crushed by the total wine industry. The difference between 'Survey Total' and 'Industry Total' is data from wine companies who did not respond to the Vintage Survey.

ND: No data available

Source: New Zealand Winegrowers' Annual Vintage Surveys

New Zealand wine exports by market

(2009-2018)

Total	L	112.647	142.032	154.661	178.880	169.669	186.889	209.419	213.371	252.962	255.093
	NZ\$	991.721	1,040.529	1,093.973	1,176.847	1,210.525	1,328.358	1,424.461	1,569.515	1,662.968	1,704.644
Others	L	2.987	2.010	4.243	4.706	4.942	5.834	7.947	7.516	11.618	14.979
	NZ\$	33.374	23.358	41.614	46.638	47.758	56.124	67.307	70.938	89.507	101.377
Finland	L	0.122	0.164	0.276	0.219	0.185	0.259	0.310	0.258	0.248	0.261
	NZ\$	1.502	1.528	2.532	2.134	1.572	2.283	2.455	2.388	2.004	2.340
Norway	L	0.069	0.068	0.169	0.205	0.224	0.334	0.270	0.284	0.320	0.316
	NZ\$	0.621	0.623	1.529	1.483	1.591	2.742	2.045	2.511	2.508	2.648
Denmark	L	1.019	1.013	0.976	1.004	0.790	0.864	1.191	0.942	1.252	1.322
	NZ\$	6.510	5.946	6.646	6.566	5.388	6.652	8.042	7.182	8.368	8.594
Germany	L	0.530	0.586	0.748	1.429	1.532	2.682	2.073	2.667	1.728	1.685
	NZ\$	5.680	4.954	5.302	7.639	9.532	14.459	10.018	14.501	10.740	9.061
Sweden	L	0.604	0.942	1.367	1.459	1.563	1.562	1.630	1.843	1.779	1.521
	NZ\$	6.105	8.747	11.365	11.554	13.090	13.020	13.163	15.276	14.208	12.903
Japan	L	0.504	0.674	0.897	1.119	1.152	1.196	1.193	1.150	1.273	1.225
	NZ\$	7.837	9.026	11.017	12.891	13.646	13.908	13.773	13.796	14.565	14.047
Hong Kong	L	0.624	0.947	1.307	1.524	1.570	1.348	1.399	1.283	1.353	1.178
	NZ\$	8.870	11.951	17.629	18.393	20.474	16.853	17.680	17.333	18.553	15.671
Singapore	L	1.000	1.031	1.164	1.149	1.285	1.572	1.580	1.567	1.306	1.338
	NZ\$	13.370	12.464	13.984	14.515	16.148	21.326	20.691	20.570	18.596	19.165
Ireland	L	1.498	1.816	1.844	2.158	2.052	2.212	2.512	2.888	2.986	3.448
	NZ\$	16.501	15.784	15.643	16.326	14.420	16.353	17.472	21.309	21.658	27.183
China	L	0.544	1.425	1.489	2.200	2.219	1.810	1.858	2.028	2.270	2.520
	NZ\$	6.130	17.165	16.872	25.234	26.868	24.803	27.069	27.593	31.758	37.385
Netherlands	L	2.354	2.746	4.060	4.586	4.128	5.022	6.744	6.801	8.203	9.322
	NZ\$	20.831	21.576	27.369	26.744	26.743	33.383	41.479	44.480	45.439	50.853
Canada	L	5.055	7.143	5.705	6.509	7.272	7.703	9.583	10.612	11.388	12.776
	NZ\$	49.498	59.141	59.180	70.906	78.177	78.941	94.906	107.372	107.434	127.933
Australia	L	37.343	45.937	45.263	53.474	49.764	53.709	57.528	52.960	59.672	56.059
	NZ\$	323.312	327.098	337.740	380.473	373.048	380.851	362.188	361.677	371.099	366.997
United	L	36.212	47.995	52.930	57.657	47.622	51.868	59.745	58.936	74.638	74.435
Kingdom	NZ\$	267.913	298.656	293.631	284.021	278.415	318.611	353.931	381.809	389.272	386.740
USA	L	22.181	26.360	32.223	39.481	43.362	48.914	53.858	61.636	72.929	72.701
	NZ\$	223.666	211.613	231.922	251.329	283.651	328.049	372.241	460.600	517.258	521.738
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018

Note: All figures are in millions Source: Statistics New Zealand

> "The country's cool climate and intense light... translate into Pinots with lush fruit, charm, complexity, silky textures."

Elin McCoy, Bloomberg.com USA

New Zealand wine exports by market

(year end June 2018)

TOTAL	L \$ \$/L	1,103.048 \$7.93	98.096 384.247 \$3.92	237.131 1,487.295 \$6.27	15.662 195.828 \$12.50	.939 6.602 \$7.03	16.601 202.431 \$12.19	1.360 14.892 \$10.95	.001 .027 \$22.86	255.093 1,704.644 \$6.68
	\$/L	\$9.35 139.034	\$3.75	\$6.20	\$13.82	\$8.48	\$13.18	\$12.41	\$15.41	\$6.77 255.093
Others	NZ\$	56.390	28.943	85.333	12.850	1.080	13.930	2.098	.017	101.377
Othors	L	6.029	7.724	13.753	.930	.127	1.057	.169	.002	14.980
	\$/L	\$9.76		\$9.76	\$12.48		\$12.48	\$7.64		\$8.96
Finland	NZ\$.873		.873	.399		.399	1.068		2.340
The law 1	L	.089		.089	.032		.032	.140		.261
	\$/L	\$7.63		\$7.63	\$11.73		\$11.73	\$11.12		\$8.36
Norway	NZ\$	1.987		1.987	.615		.615	.046		2.648
News	L	.260		.260	.052		.052	.004		.317
	\$/L	\$7.24	\$4.26	\$5.89	\$13.38	\$44.46	\$13.43	\$13.32		\$6.50
Denmark	NZ\$	4.812	2.343	7.155	1.416	.008	1.424	.015		8.595
	L	.665	.550	1.215	.106	.000	.106	.001		1.322
	\$/L	\$6.00	\$3.71	\$5.08	\$16.63	\$15.09	\$16.62	\$4.10		\$5.38
Germany	NZ\$	5.814	2.441	8.255	.747	.004	.751	.055		9.062
	L	.968	.658	1.626	.045	.000	.045	.014		1.685
	\$/L	\$7.91	\$4.80	\$7.85	\$11.33	\$6.46	\$11.23	\$11.14		\$8.48
Sweden	NZ\$	9.309	.025	9.727	2.862	.003	2.894	.025		12.904
	L	1.214	.025	1.239	.253	.005	.258	.025		1.522
	₩Z⊅ \$/L	\$9.91	.802 \$5.81	\$9.18	\$17.34	.244 \$25.91	\$17.58	\$9.62		\$11.47
Japan	L NZ\$.683 6.770	.148 .862	.832 7.632	.321 5.564	.009 .244	.330 5.807	.063 .608		1.225 14.047
	NZ\$ \$/L	9.353 \$10.68	.196 \$11.07	9.549 \$10.69	5.925 \$21.53	.092 \$148.62	\$21.82	.108 \$12.18		\$13.30
Hong Kong	L NZ\$.876 9.353	.018 .196	.894 9.549	.275 5.923	.001 .092	.276 6.015	.009 .108		1.178 15.672
	NZ\$ \$/L	\$13.30	.047 \$11.37	12.648 \$13.29	5.595 \$17.28	.021 \$11.79	\$17.25	.901 \$14.64		\$14.32
Singapore	L NZ\$.948 12.601	.004 .047	.952 12.648	.324 5.595	.002 .021	.325 5.616	.062 .901		1.339 19.166
	NZ\$ \$/L	23.981 \$7.72	1.204 \$7.52	25.185 \$7.71	1.760 \$11.03	.005 \$1.65	1.766 \$10.84	.233 \$11.99		27.183 \$7.88
Ireland	L	3.106	.160	3.266	.160	.003	.163	.019		3.448
	NZ\$ \$/L	12.740 \$12.48	.063 \$12.63	12.803 \$12.48	23.845 \$16.51	5.174 \$15.22	24.365 \$16.48	.217 \$12.96		37.385 \$14.83
China	L	1.021	.005	1.026	1.444	.034	1.478	.016		2.520
	\$/L	\$7.31	\$3.09	\$5.16	\$9.54	\$5.11	\$9.35	\$8.85		\$5.45
Netherlands	NZ\$	23.403	21.304	44.707	5.332	.125	5.457	.690		50.854
	L	3.202	5.460	8.662	.559	.024	.583	.077		9.323
	\$/L	\$10.12	\$3.32	\$9.76	\$12.63	\$6.35	\$12.62	\$12.14		\$10.01
Canada	NZ\$	111.377	2.071	113.448	13.847	.010	13.858	6.281		127.934
	L	11.002	.625	11.627	1.096	.001	1.098	.052		12.776
	\$/L	\$7.50	\$3.71	\$6.07	\$11.51	\$8.27	\$11.40	\$13.76	\$478.50	\$6.55
Australia	NZ\$	239.461	71.606	311.067	4.299	1.316	4.438 50.803	5.119	.000	366.998
	47 L	31.910	19.320	51.230	4.299	.159	4.458	.372	.000	56.060
Kingdom	NZ\$ \$/L	210.234 \$6.68	140.939 \$3.59	351.173 \$4.97	31.099 \$10.22	2.862 \$5.34	33.960 \$9.49	1.607 \$9.80	.000 \$6.11	386.741 \$5.20
United	L	31.148	39.212	70.693	3.043	.536	3.579	.164	.000	74.435
	\$/L	\$8.20	\$4.63	\$6.96	\$12.66	\$7.96	\$12.59	\$7.09	\$36.94	\$7.18
USA	NZ\$	373.642	112.110	485.752	34.386	0.284	34.770	1.216	.001	521.739
	L	45.581	24.188	69.769	2.725	0.035	2.760	.171	.000	72.701
		750ml	Other	Total	750ml	Other	Total	Sparkling	Fortified	TOTAL
		White	White	White	Red	Red	Red			

Source: Statistics New Zealand

Note: All litre and dollar figures are in millions

New Zealand wine exports by variety

(2009-2018)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sauvignon Blanc	91.527	115.810	131.653	150.883	144.551	160.580	177.776	181.944	217.890	220.065
Pinot Noir	6.183	8.207	9.498	10.560	10.170	10.705	10.886	12.171	12.510	13.171
Pinot Gris	2.036	2.769	2.648	4.091	3.612	4.688	4.479	4.713	7.151	7.740
Chardonnay	4.789	5.234	4.888	5.510	4.914	4.627	5.277	6.063	6.172	4.766
Rosé	0.704	0.559	0.622	0.586	0.490	0.712	0.835	0.942	2.389	3.656
Merlot	1.931	2.618	2.347	2.379	2.059	1.765	1.711	1.906	2.250	2.060
Sparkling	1.976	1.737	1.271	1.392	1.451	1.700	1.441	1.412	1.088	1.167
Riesling	0.776	0.971	1.062	1.057	0.924	0.996	0.113	0.150	1.099	0.962
Cabernet or Merlot Blend	1.067	1.022	1.094	1.254	1.424	1.030	0.754	0.836	0.972	0.798
Other White Varietals	0.081	0.069	0.076	0.118	0.103	0.127	0.282	0.341	0.453	0.420
Syrah	0.155	0.227	0.307	0.309	0.270	0.242	0.954	1.065	0.283	0.375
Gewürztraminer	0.146	0.162	0.306	0.202	0.192	0.212	0.017	0.026	0.182	0.150
Generic White	1.117	0.991	0.532	0.719	0.266	0.043	0.384	0.380	0.085	0.120
Sauvignon Blend	0.128	0.154	0.077	0.140	0.422	0.034	0.014	0.013	0.135	0.102
Sparkling Sauvignon	0.000	0.000	0.000	0.217	0.360	0.107	0.175	0.183	0.059	0.101
Other Red Varietals	0.049	0.060	0.087	0.095	0.085	0.068	0.041	0.048	0.128	0.064
Sweet Wines	0.034	0.027	0.039	0.055	0.038	0.037	0.085	0.134	0.051	0.032
Cabernet Sauvignon	0.014	0.043	0.020	0.030	0.046	0.006	0.012	0.013	0.011	0.023
Generic Red	0.035	0.068	0.022	0.021	0.043	0.002	0.170	0.087	0.126	0.013
Chenin Blanc	0.009	0.010	0.017	0.013	0.016	0.017	0.041	0.028	0.008	0.009
Chardonnay Blend	0.208	0.426	0.415	0.149	0.997	0.047	0.005	0.132	0.007	0.008
Fortified	0.030	0.011	0.001	0.001	0.001	0.004	0.002	0.011	0.001	N/A
Semillon	0.003	0.001	0.008	0.002	0.003	0.008	0.009	N/A	0.051	N/A
Total*	113.000	141.139	156.990	179.783	172.437	187.757	205.460	212.594	253.099	255.802

* Data will differ slightly in total volume to those obtained through Statistics New Zealand

Note: All figures are in millions of litres Source: Wine Export Certification Service

Wine imports into New Zealand

(2009-2018)

By country of origin	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Australia	20.019	26.502	22.512	21.897	32.565	31.658	25.668	28.715	28.961	31.517
France	1.872	0.984	1.095	1.449	2.023	2.153	2.344	2.869	2.807	2.762
Chile	0.858	0.102	0.062	0.530	1.936	2.456	1.905	1.842	2.397	1.606
South Africa	7.594	5.860	1.710	1.694	2.579	1.732	1.373	1.086	1.492	1.370
Italy	1.523	1.067	0.995	0.858	0.865	0.94	1.023	1.308	1.381	1.786
Spain	0.493	0.207	0.230	0.311	0.430	0.518	0.641	0.578	0.716	.557
Argentina	0.380	0.053	0.051	0.082	0.112	0.161	0.229	0.212	0.223	.265
Others	0.605	0.283	0.631	0.511	0.382	1.106	1.307	0.603	1.958	1.017
Total	33.344	35.059	27.287	27.331	40.892	40.724	34.490	37.212	39.935	40.881
Total	33.344	35.059	27.287	27.331	40.892	40.724	34.490	37.212	39.935	40.881
Total By product type	33.344 2009	35.059 2010	27.287 2011	27.331 2012	40.892 2013	40.724 2014	34.490 2015	37.212 2016	39.935 2017	40.881 2018
By product type	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
By product type White	2009 11.312	2010 13.773	2011 8.005	2012 7.555	2013 16.76	2014	2015	2016 14.088	2017 18.206	2018 21.525
By product type White Red	2009 11.312 18.633	2010 13.773 18.475	2011 8.005 16.012	2012 7.555 17.011	2013 16.76 20.958	2014 17.28 20.541	2015 11.217 19.830	2016 14.088 19.070	2017 18.206 17.579	2018 21.525 15.036
By product type White Red Sparkling	2009 11.312 18.633 2.762	2010 13.773 18.475 2.376	2011 8.005 16.012 2.760	2012 7.555 17.011 2.008	2013 16.76 20.958 2.962	2014 17.28 20.541 1.849	2015 11.217 19.830 2.268	2016 14.088 19.070 2.632	2017 18.206 17.579 2.651	2018 21.525 15.036 2.905

Note: All figures are in millions of litres

Country of Origin		White	Red	Sparkling	Fortified	Total
Australia	L \$	18.838 33.073	10.912 58.070	1.748 9.987	.018 1.653	31.517 101.958
France	L \$.273 3.526	1.026 12.483	1.463 43.1578		2.762 59.234
Chile	L \$	1.241 1.797	0.362 1.231	.035 .023		1.606 3.051
South Africa	L \$.437 .703	.910 1.648	.022 .223		1.370 2.582
Italy	L \$.162 1.359	.835 5.787	.789 6.345		1.786 13.490
Spain	L \$.028 .244	.442 2.667	.083 .532	.004 .355	.557 3.750
Argentina	L \$.010 .068	.254 1.472	.001 .026		.265 1.566
Others	L \$.536 3.330	.294 2.798	.165 1.262	.022 3.400	1.017 9.106
Total	L \$	21.525 44.099	15.036 88.156	4.276 61.555	.045 5.526	40.881 194.738

Note: All figures are in millions

Source: Statistics New Zealand

Directory



Board Members

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Steve Green Carrick
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Fabian Yukich Villa Maria Estate Ltd

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2015	Kate Radburnd
2015	Mike Trought
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2016	Larry McKenna
2017	Geoff Thorpe
2017	Bill Spence
2017	Lorraine Rudelj
2017	Joe Babich

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1982	George T Mazuran, OBE, JP
	Bogoslav (Bob) Sokolich
	Alexander A Corban, OBE,
	BSc, RD Oen
	Thomas B McDonald, OBE, JP
1987	Mate G Brajkovich, OBE
1988	Peter D Fredatovich, MBE, JP
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1998	Anthony F Soljan
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2003 Kerry Hitchcock

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New Zealand Winegrowers

2005 Margaret Harvey, MW

Wine Institute of New Zealand

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James S Fraser, B.Food Tech,
Dip.Dy
Stanley L Harris, QSM

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2000	Kevyn Moore, QSM
2004	Jim Hamilton
2005	Willie Crosse

Industry Organisations

New Zealand Society of Viticulture & Oenology c/o New Zealand Winegrowers

President, Jeff Sinnott

Regional Winegrowing Associations

Hawke's Bay Winegrowers Association Inc

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Sue Schmidt (Administrator) sue@hawkesbaywine.co.nz www.hawkesbaywine.co.nz

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Waitaki Valley Winegrowers Association

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"The experience reminded me how much pleasure I get from an unexpected wine discovery, and how many surprises New Zealand always seems to deliver. These start with the country itself, a place where you feel you can glimpse the planet's beginnings in landscapes heaved up by earthquakes and scoured by glaciers.

Vines hug slopes of steep, jagged peaks, sit above long shining lakes and ocean coves, and lie next to deep rocky gorges with rushing water so clear you feel recharged just looking at it.

The sky, with its intense, clear light and ever-changing swirls of clouds, looks washed by wind from far, far away. It all leaves you a little breathless, as does the surprising speed with which the wine industry has changed and grown since my last visit to New Zealand in 2009."

Elin McCoy, USA Decanter Magazine



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The **Bakland** Tribune

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Supple Pinots from fast-growing region

CROMWELL, N.Z. DVENTURE TRAVELERS know New Zealand's Central Otago region as a prime spot for bungee jumping, jet boating and hiking. Even the less energetic drink in the beautiful scenery provided by the region's mountains and lakes.

But there's plenty for wine lovers to drink in, too. Central Otago, New Zealand's newest and fastest growing wine region, is building its reputation on outstanding, complex Pinot Noir.

In 1997, there were 14 wineries in Central Otago; by last year, there were 89.

The increase in vineyard acreage has been even more dramatic: Only about 500 acres were planted in '97, compared with more than 4,000 today. And most of that increased acreage has been Pinot Noir.

Pinot acreage has been on the rise throughout New Zealand, up more than 900 percent over the past 10 years, and there are other regions that have success with the grape, such as Marlborough and Martinborough. I'll tell you more about those places next week.

But the Pinots from Central Otago — deeply colored, rich and lush, yet well-balanced — have seduced a lot of wine drinkers, and have focused international attention on the region. These are wines that are fully ripe and often over 14 percent alcohol, but they still retain their elegance and Pinot-ness.

Location, location

Central Otago, on New Zealand's South Island, is the world's southernmost wine-growing region. At these latitudes, the days are very long during the growing season, so the vines get a lot of sunshine.

That's important, because that growing season can be on the short side, with frost a threat both during the spring, when the vines are coming to life, and during harvest time

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in the fall. Summer days are hot and sunny, but the nights are cool to cold.

Central Otago actually has half a dozen sub-regions with slightly different climates, soils and elevations. A lot of the latest development has been concentrated in the warmer Bendigo sub-region, where the first vineyards were planted in 1998 by Rudi Bauer of Quartz Reef Winery. Most of the vineyards are on

north-facing slopes that catch plenty of sun. The understanding of the differences in the sub-regions "is the really exciting thing that's starting to emerge in Central Otago," says Warwick Hawker of Pisa Range Estate (whose wines, unfortunately, aren't available in Cali-

fornia).

The Gibbston sub-region, for example, is only about six miles from Bendigo, but because Gibbston is so much cooler, the grapes are harvested three to six weeks later.

Still, Bauer, for one, thinks the hand of the winemaker is still strong.

"Everybody talks about terroir," he says, referring to the French concept that the wine reflects the qualities of the vineyard site. "At the moment, the terroir is the human kind."

Expensive and worth it

The wineries here are small, so none of these wines will be widely available in huge quantities. Many are also on the pricey side. But it's worth seeking them out if you love Pinot Noir.

One of my favorite Central Otago wineries is <u>Felton Road</u>. Winemaker Blair Walter produces several Pinots in the Bannockburn area. The 2006 Felton Road Pinot Noir (\$43) is dark and spicy, with raspberry and dark cherry fruit, firm structure and a long finish. The more limited 2006 Felton Road "Calvert" Pinot Noir (\$54) is more supple, while the winery's 2006 "Block 3" Pinot Noir

> 11 of 21 Account: 18561A (1291) CA-454

(\$63) has dark fruit scented with a hint of wild thyme.

Firm structure is a common thread in the Pinots from the Bannockburn area. Olssens Garden Vineyard, across the road from Felton Road, was the first to be planted in the Bannockburn area, in 1991. The 2006 Olssens "Jackson Barry" Pinot Noir (\$40) is spicy and dark, with raspberry and cherry and a slight tannic edge on the finish.

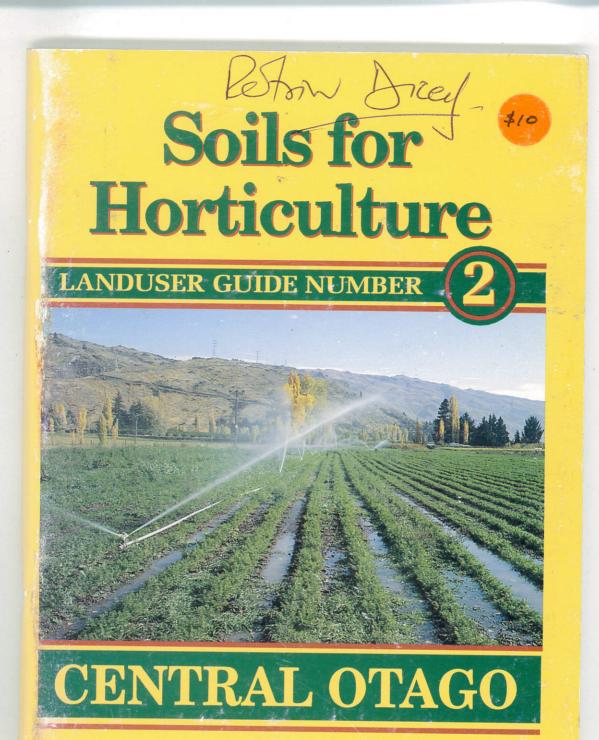
The wines from Mt. Difficulty have even stronger tannins. The 2006 Mt. Difficulty Pinot Noir (\$38) displays pretty cherry fruit on the entry and fairly aggressive tannins on the finish, while the 2006 Roaring Meg Pinot Noir (\$21), produced by the same winery, is still quite tight, with a drying finish.

Most of the grapes for the 2006 Quartz Reef Pinot Noir (\$36) come from the emerging Bendigo region;



Page 1 of 2





P. D. McIntosh

Landcare Research New Zealand, Dunedin formerly DSIR Land Resources, Dunedin

NOTES ON THE AUTHOR

Peter McIntosh graduated in geology at the University of Reading, England in 1971. After working with a scientific publisher in Amsterdam, he emigrated to New Zealand in 1973. After another brief stint in scientific publishing, he did postgraduate study on forest soils at Victoria University of Wellington.

In 1979 he moved to Invermay Agricultural Research Centre to study soil patterns in upland and high country soils, and fertiliser requirements in these areas. In 1982 his interest in pedology took him to the DSIR in Gore where he concentrated on soil mapping. One of the aims of the mapping was to delineate areas suitable for horticulture and alternative species for forestry such as eucalypts. During work in Gore, he acted as consultant for local interests wishing to select sites for a local bulb industry.

Since moving to DSIR Dunedin in 1988 he has maintained a strong interest in horticultural research. Fieldwork has included studies on the soils of horticultural potential in many parts of Otago and Southland, as well as investigations of high-country soils. With colleagues he compiled a register of the salty soil areas of Central Otago and in 1990 he surveyed the soils of Redbank Research Station, Clyde. He has travelled to Holland and England to familiarise himself with horticultural research in these countries.

Peter McIntosh now works for Landcare Research New Zealand, the successor to DSIR Land Resources.

Landuser Guide No. 2

Published by: Landcare Research New Zealand Ltd, Lincoln in association with Ravensdown Fertiliser Co-operative Ltd, Dunedin, 1992

Bibliographic reference: MCINTOSH, P.D. 1992: Soils for horticulture in Central Otago. Landuser Guide No. 2. Landcare Research New Zealand Ltd, Lincoln and Ravensdown Fertiliser Co-operative Ltd, Dunedin, 83 p.

Designed and printed by: Creative Advertising Ltd, Dunedin.

Profile form is similar to that of Manuherikia moderately deep fine sandy loam, clay illuvial variant (page 80), silty textures and clayrich bands being characteristic. Horticultural potential is similar but the Bt horizon (claypan) is shallower and has the ability to perch water under irrigation. The danger is not only that crops might be affected by waterlogging, but that on rolling land the accumulation of water above the claypan might lead to lateral water flow, dispersion of clay, and tunnel-gully erosion. Rates of water application therefore need careful control.

Bannockburn soils

Bannockburn soils are man-made. They are formed in sluicings derived largely from silty sediments. Although drainage and texture are variable, they are more suitable for horticulture than soils formed in gravelly sediments (German soils) because of their higher fertility and greater water-holding capacity. Orchards have been successfully established on Bannockburn soils.

Lochar soils, hilly phase

The hilly phase of Lochar soils may be used for horticulture in conjunction with adjacent undulating phases, provided that appropriate irrigation methods are used.

Hawksburn soils, hilly phase

Hawksburn soils, hilly phase, are formed in about 55 cm of loess overlying schist colluvium. Like Hawksburn soils on rolling land, the soils have a prominent Bt horizon (claypan) which may limit root penetration and water permeability. The soils have greater total water-holding capacity than Conroy soils with which they are associated in the Bannockburn Valley, and for this reason they are more suitable for horticulture than Conroy soils.

Tunnel-gully erosion is a danger if these soils are irrigated. Availability of water and a rapid decline of growing degree days with increasing altitude are the main factors (other than slope) limiting potential use.

53

HEART OF THE DESERT

Being the History of the Cromwell and Bannockburn Districts of Central Otago

J. C. PARCELL

OTAGO CENTENNIAL HISTORICAL PUBLICATIONS

1951

Being the History of the Cromwell and Bannockburn Districts HEART OF THE DESERT HISTORICAL PUBLICATIONS JAMES CROMBIE PARCELL OTAGO CENTENNIAL of Central Otago 1951 erserial sol to notional sol to again dreaded at the Mounton of the Rivers (J. S. D. Roberts, Photo)

HEART OF THE DESERT

02

rapidly went from bad to worse, and in March of 1883 the works were taken in execution by the bailiff at the suit of William Sutherland. The company went into voluntary liquidation at the same time. A Government party examined the lodes in August, 1883, and reported that the ore was not found in sufficiently large blocks to be payable. The last land-mark was removed when the great storm of October, 1883, blew the big chimney down. The bricks so rudely treated by the elements were bought by J. L. Scott of Cronwell who built them into bakers' ovens. There they served until the bakery ceased a few years ago and there they still remain. Anyone interested in the making of bricks from Bannockburn clay has not far to go to see samples.

VI THE

BANNOCKBURN SETTLEMENT

gouri and traversed by two crystal-clear creeks - the Bandirectly the result of the influx of miners working their way upstream from the Dunstan Gorge, reinforced later became important as a rich alluvial field, and also as the jumping off place for the Nevis field. In all these rush communities there was a settlement element composed of those who were prepared to entertain the miners in their spare time, or to supply essential foodstuffs. Very often the shanty-keepers and shopkeepers were miners as well. The first Bannockburn was upon a flat at the mouth of the Bannockburn Creek, about half a mile up from the Kawaflat with a thick rich soil covered by manuka and mata-862, but not in the locality in which it now stands. It was the outflow from the short-lived Bendigo field. It rau. To-day it is an expanse of tailings sorrowful to look at, but the earliest settlers found there a beautiful alluvial THE BANNOCKBURN SETTLEMENT began towards the end of nockburn and Shepherd's.

The creeks contained gold, and immediately the whole No other fuel was known until the coal outcrops were dishe later shifted to the present hotel site. John Richards seems to have been very commercially minded for he was responsible for many of the business activities around the settlement for some years. In the main the supplies had to come from Clyde, over the top of the Cairnmuir Range The road through the Dunstan Gorge was not yet made and Cromwell, or the Junction as it was called, was not sufficiently advanced to become a supply centre. Into the pargain the mighty Kawarau raged between Cromwell and sorts of crude habitations. The native timber disappeared at by means of a pack-track after having been transported once, being used for shanties, in the claims, and for fuel. covered shortly afterwards. This was the first Bannockburn, from Dunedin to Clyde by wagon at enormous expense. area was taken up, and the flat covered with tents and all and here John Richards made his first hotel and store which

MAFInvermay

CROMWELL TO WANAKA WARM SEASON GROWING DEGREE DAYS

Robin Dicey.

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INVERMAY JUNE 1988

INTRODUCTION

This report collates three previous warm season (November to April) climate surveys made during December 1985 through to February 1986. The three surveys were part of a co-operative programme between Ministry of Works and Development, Cromwell, and Ministry of Agriculture and Fisheries at Invermay Agricultural Centre.

- 2 -

The surveys covered three fairly distinct climatic regions in the Upper Clutha Valley from Cromwell to the Lakes. The lower valley area was mapped by MAF and extended over the semi-arid zone from Bannockburn to about Pisa and Bendigo (Figure 1). Ministry of Works and Development, Cromwell, covered the sub-humid mid valley zone from Bendigo and Pisa to Tarras and Luggate; whilst the upper regions, which is partly humid, was surveyed by MAF, Invermay and extended from Luggate through to Lakes Wanaka and Hawea.

The mapping was initiated partly to observe any changes in temperatures which may follow the filling of Lake Dunstan and partly to delineate areas of warmth and local climate which may have special application for horticultural or agricultural activities.

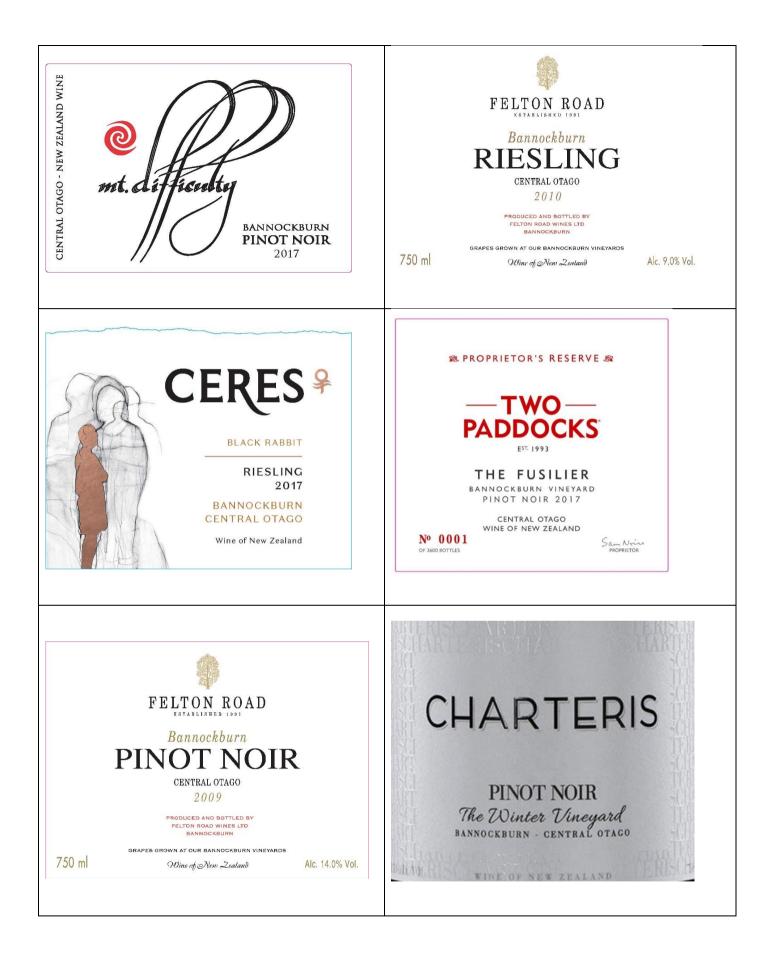
Previous Work

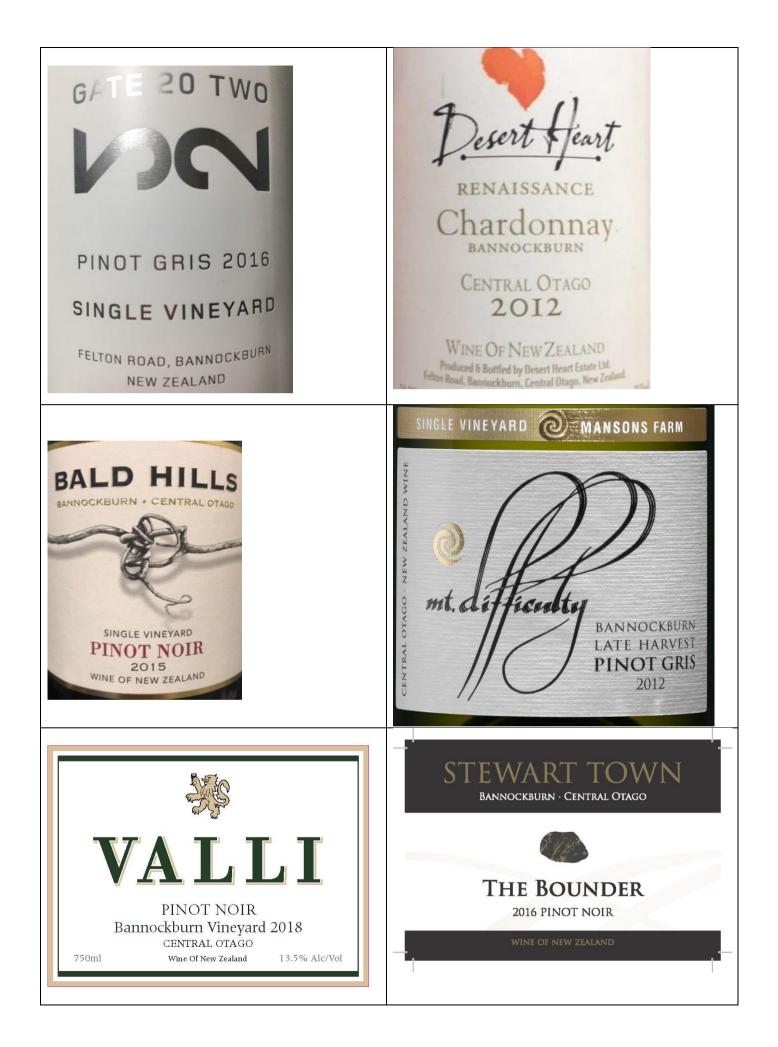
Franklin (1968, 1969) and Hutchinson (1969) made a preliminary assessment as to the suitability of the Cromwell – Bendigo area for a grape growing industry.

Aldridge (1986) in an internal report of MWD Dunedin reported on the wind patterns over a number of sites in Central Otago including those at the standard Meteorological stations at Cromwell, and Bendigo.

Turner and Fitzharris (1986) confirmed the Bannockburn area which bounds the Cromwell Survey to be climatically very favoured with some areas having total of 1200 GDD greater than 10°C for the months of November to April and many over 1000 GDD. This would be the warmest summer locality in Otago.













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Forrest Wines Botrytised Riesling

Giesen 'The Brothers' Late Harvest

Auntsfield Single Vinevard Pinot Noir

Villa Maria Reserve Noble Botrytis Riesling

Framingham Noble Riesling

Sauvignon Blanc Pegasus Bay Encore Riesling

PINOT NOIR

Akarua Pinot Noir

Bell Hill Pinot Noir

Ata Rangi Pinot Noir

Burn Cottage Pinot Noir

Escarpment Kupe Pinot Noir

Felton Road Block 3 Pinot Noir Felton Road Block 5 Pinot Noir

Grasshopper Rock Pinot Noir

Neudorf Moutere Pinot Noir

Peregrine Wines Pinot Noir

Rockburn Barrels Pinot Noir

Valli Gibbston Pinot Noir

Bilancia La Collina Svrah

Trinity Hill Homage Syrah

Villa Maria Reserve Syrah

Craggy Range Le Sol Te Mata Estate Bullnose Syrah

BORDEAUX BLENDS

Esk Valley The Terraces

Te Mata Estate Coleraine

Stonyridge Vineyard Larose

Cabernet Sauvignon Merlot

Trinity Hill Gimblett Gravels 'The Gimblett'

Church Road TOM

Villa Maria Reserve

Rippon "Tinker's Field" Pinot Noir

Te Kairanga John Martin Pinot Noir

Lowburn Ferry Home Block Pinot Noir

Martinborough Vineyard Home Block

Craggy Range Aroha Doctors Flat Pinot Noir

Dry River Pinot Noir

Greystone Pinot Noir

Kusuda Pinot Noir

Maude Pinot Noir

Pinot Noir

SYRAH

SPARKLING

Deutz Blanc de Blanc Vintage Cloudy Bay Pelorus NV Nautilus Cuvee Brut NV No. 1 Reserve Methode Traditionelle NV Quartz Reef Methode Traditionnelle Vintage

AROMATICS

Domain Road Vineyard Duffers Creek Riesling Dry River Lovat Gewürztraminer Dry River Pinot Gris Felton Road Block 1 Riesling Felton Road Dry Riesling Framingham 'F' Series Gewürztraminer Framingham 'F' Series Riesling Kabinett FROMM Spatlese Riesling Greystone Pinot Gris Johanneshof Cellars Gewürztraminer Misha's Vineyard "Limelight" Riesling Neudorf Moutere Pinot Gris Pegasus Bay Bel Canto Riesling Prophet's Rock Pinot Gris Te Whare Ra Toru SV5182

Auntsfield Single Vineyard Sauvignon Blanc Brancott Estate Letter Series B Sauvignon Blanc Cloudy Bay Te Koko Sauvignon Blanc Dog Point Sauvignon Blanc Greywacke Sauvignon Blanc Saint Clair Reserve Wairau Sauvignon Blanc Te Mata Estate Cape Crest Sauvignon Blanc Tohu Single Vineyard Sauvignon Blanc Vavasour Sauvignon Blanc Villa Maria Single Vineyard Southern Clays Sauvignon Blanc

Clearview Estate Reserve Chardonnav Dog Point Chardonnay Felton Road Block 2 Chardonnay Greywacke Chardonnay Kumeu River Hunting Hill Chardonnay Kumeu River Mate's Vineyard Chardonnay Neudorf Moutere Chardonnay Neudorf Rosie's Block Chardonnay Sacred Hill Riflemans Chardonnay Vidal Legacy Chardonnay Villa Maria Keltern Vineyard Chardonnay

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