

New Zealand - The North Island

	Northland	Auckland	Waikato & Bay of Plenty	Gisborne
H A	<1% NZ Total	398 ha (2015). 1.1%.	24 ha (2015).	1,914ha (2015)
L O C A T I O N	35 degrees latitude. Most northern portion. Flat areas and gentle slopes. Most land below 150 m, Surrounded by Pacific Ocean. Nowhere is the sea more than 50 km away.	36 degrees latitude. Large, geographically diverse area. Pockets of flat lands on east coast, or in shelter of western Waitakere ranges.	37 degrees latitude. Scattered among rolling farmland. Bay of Plenty, Lake Taupo, Waikato River, Kaimai Range (coastal).	38 degrees latitude. Coastal region, 3rd largest. Very hilly landscape fans out into the lush lowland flood plains of the Waipaoa River. Flat land vineyards. Sheltered by western mountains. Waipaopa River, Poverty Bay, Raukumara Range.
C L I M A T E	Nearly sub-tropical. Humid, sunny, and warm. NZ's highest average annual temperature. Mean Feb temps 66.7F (19.3C). Warm, wet, temperate. 34" rain during growing season.	More sub-tropical. Warm and relatively humid. Warm, 2,060 hrs sunlight. Cloud cover moderates sunshine for even ripening. Mean Feb temps 67F (19.8C). 24.2" rain during growing season. Decreases moving eastward. Waiheke Island's Hauraki Gulf location gives it a distinct climate, being drier, warmer and assisted by cooling sea breezes.	Maritime influence. Mean Feb temps 65.8F (18.8C). 23.8" rain during growing season.	Warmer and wetter than Hawkes Bay, especially in the autumn. Lots of sunshine, 2,180 hours. Mean Feb temps 66.5F (19.2C). 20.6" rain during growing season. Late summer/autumn rainfall can test producers though recent advances in viticultural techniques and site selection makes this less of an issue. Surrounding ranges provide inland shelter and sea breezes cool coastal sites.
S O I L	Varied soils. Grey-brown, clay-rich loam soils. Subsoils of compact clay. Friable volcanic clays in Kerikeri.	Mainly heavy clays, volcanic soils, layered sandstone and mudstone. All sub-regions can vary significantly and while generally soils provide quite poor drainage, management and clone selection have enabled premium wines.	Waikato - heavy loam over clay sub-soils. Bay of Plenty - volcanic loams.	Fertile alluvial loam soils over sandy or volcanic sub-soils. Heavier clays in plains (fleshier wines). Fine alluvial silt near river with clay and loams (aromatic wines). Site selection has moved away from very fertile flood loams towards the higher better-drained parts of the plains and foothills.
V A R I E T I E S	Chardonnay (tropical), Pinot Gris, Viognier. Syrah (spicy), Merlot, Cabernet Sauvignon (blends), Pinotage (peppery), Chambourcin (complexed). Rot resistant varieties.	Chardonnay: 64ha. Varying styles of weight. Ripe wines with tropical flavors and fresh, balanced acidity. Kumeu is a top sub region. Pinot Gris: 30ha. Grown throughout but strong in Matakana. Weighty wines with spice, ripe stonefruit and pear. Syrah: 48ha. Sophisticated, intense wines flow from Waiheke where the excitement is building about its aromatic, elegant, pure-fruited expression. Red Blends: 121ha. Stylish red blends common throughout. Dense yet elegant, commanding acclaim and very high prices. Merlot: 50ha. Performs best on heavier soils. Cabernet Sauvignon: 31ha Cabernet Franc: 24ha. Malbec: 17ha. Petit Verdot: 5ha. Pinot Noir: 3ha.	Primarily Chardonnay. Cabernet Sauvignon 2nd Sauvignon Blanc 3rd	Chardonnay: 794ha (2015).Highly aromatic, rich, lush with fruit. Simple early-drinking styles a specialty. Top, most intense wines have longevity. Pinot Gris: 381ha (2014). Promising. Gewürztraminer: 157ha (2014). Well-textured, strongly aromatic, spicy. Viognier: 84ha (2014). Promising. Merlot: 103ha (2014). Can be challenging in the climate, but drier years give fleshy, flavorsome reds. Malbec: Enjoys success in carefully chosen sites. Sauvignon Blanc: 56ha (2014). Very tropical, rip, bold with broad palates. Early picked styles can be lighter, herbaceous, zesty. Riesling, Chenin Blanc, Semillon, Sparkling wines, Pinot Noir, Pinotage, fortified and dessert styles.
V I T I		Revived in the 1990s with canopy management to correct vine vigor. Ripening grapes generally not a problem. Disease pressure can be of concern, lessened by site selection and viticulture techniques.		Chardonnay picked 2-3 weeks before Hawkes or Marlborough. Frequently the country's first grapes to be harvested.
V I N I				

Northland		Auckland		Waikato & Bay of Plenty	Gisborne
S U B - R E G I O N S	Sub-regions: Kaitaia Kerikeri Whangarei	Sub-regions: Waiheke Island: Island. Warm, dry maritime climate promotes intensity, varietal depth and purity of fruit. Renowned for Bordeaux blends, Syrah is rising star (fresh, elegant, silky). A range of varieties from Montepulciano to Petit Verdot, Chardonnay to Viognier do well. Matakana/Mahurangi: An hour north of Auckland. Rolling hills. Balmy and humid. Careful site selection. Vines are recent but produce stylish Pinot Gris, Syrah and Bordeaux blends. Warm, spicy wines with good body and texture. West Auckland: Fertile soils, warm, humid. Source for high quality. Chardonnay and Merlot are highlights. Clevedon: Rolling hills. Kumeu/Huapai Henderson		Sub-regions: Te Kauwhata Te Awamutu Coromandel Peninsula Lake Taupo Hamilton Rotorua	Sub-regions: Golden Slope, Ormond, Ormond Valley, Manutuke, Central Valley, Riverpoint, Patutahi, Patutahi Plateau, Waipaoa. Ormond: North of the city, where the river valley narrows into the Raukumara Ranges, site of Gisborne's original vines, and some of today's best vineyards and wines. Warmer, slightly drier with silt-loams. Home to the "Golden Slope", a 10km elevated, gently-sloping free-draining, sandy escarpment with limestone-influenced topsoil, producing some of the best Chardonnay. Patutahi: 1/3 of the region's vines. A warmer inland site to the west of the city, with lower rainfall (30% less) and well-draining higher and sloping clay and silt soils. Very good Gewürztraminer, though a wide range of varieties. Richly flavored with good texture and body. Manutuke: First vines in 1890s. South of the city, closer to the coast, sea breezes. Well-drained sandy, silt soils with some heavier complex Kaiti clay to the hillier west suiting Chardonnay; closer to the river conditions can be ideal for botrytised wines as well as finely-textured aromatic wines.
	14 wineries (2015). Small production. A few high quality producers - Kerikeri Estate, Oahu Estate, Marsden Estate.	111 wineries (2015). 10 growers (2015). Major Producers: Constellation (Nebilo, Monkey Bay, Kim Crawford), Kumeu River, Matua Valley, Babich, Pleasant Valley, Cable Bay, Stony Ridge.		12 wineries (2015). 0 growers (2015). Top producers: Morton Estate, Vilagrad.	1,608ha down from 2,000+. 18 wineries (2015). 41 growers (2015). Small scale wineries increasing quality image. Major producers: Millton, Brunton Road.
P R O D U C T I O N					

New Zealand - The North Island con’t

Hawke’s Bay		Gimblett Gravels	Wairarapa
H A	4,773ha (2015) - 2nd largest region.	800ha	1,006ha (2015)
L O C A T I O N	39 degrees latitude. East coast. Coastal ranges up to 1600m to wide fertile plains.	Small sub-district of Hawke’s Bay. Along the old concourse of the Ngaruroro River which was exposed after a huge flood in the 1860s.	Southern tip of the North Island. East of Wellington over Rimutaka Range. In the rain shadow of the mountains. Long broad valley formed by Ruamahanga river, numerous tributaries running north and east. 41 degrees latitude. Major Natural Features: Aorangi and Tararua Ranges, Ruamahanga River
C L I M A T E	Many mesoclimates. Very sunny, with heat summations somewhere between Burgundy and Bordeaux, the maritime influence tempers hot summer days and permits a long growing season. The surrounding high country offers wind protection though frost can be a risk in some inland areas. Cooler, wet weather can pose problems in the growing season but free-draining soils help reduce its impact. 15.3” rainfall during growing season. Mean February temps 66.7F (19.3C). High sunshine hours - 2,188. Hillsides explored for differences in soil and altitude. They assist in frost protection for more inland sites. Major Natural Features: Heretaunga Plains, Hawke Bay, Ngaruroro River, Tukituki River		Maritime climate- coolest and driest on North Island 15” rainfall during growing season. Cooled by westerly winds. Significant diurnal temp swings. Cold, autumn rains, rarely promotes botrytis. Mean February temps 65.1F (18.4C) Sunlight hours - 1,915.
S O I L	Varied and complexed soils due to region's four major rivers. Creates significant impact on viticulture and wine style. Plains: High water table, rich. Densely planted. Alluvial over gravely sub-soils. Havelock has more sandy loam over clay pans. Hastings is surround by loamy-clays. Gimblett Gravels: red metals and famous arid, stoney gravels. Alluvial: poor drainage and high vigor. Other regions: deep, well drained gravel soils, induce water stress. Surrounding rolling hill country is clay and limestone-based. Bridge Pa contains the oldest soils on the Heretaunga Plains. Distinct as they consist of low fertile, free draining alluvium deposit or eroded ash, loess and sediments.	Poor, especially deep, well-draining gravels. Sand grains welded together 200 million years ago to form hard sandstone called greywacke. Tectonic plate movement 5 million years ago caused mountains to form. Rocks broke off falling into Ngaruroro River. Ultimately creating Omahu soils, fine loamy sand topsoil, overlying stony gravels mixed with varying proportions of sand, and horizontally bedded lenses of non-stony sand between the stony layers.	Thin, poor soils over free draining gravel. Those further away from the Rumahanga River display a higher content of clay and silt. Adds depth. Terraced soils nearer the river are generally planted on gravel, and tend to be lighter in style and more elegant. Martinborough- shallow silt loams with gravel sub-soils.

	Hawke’s Bay	Gimblett Gravels	Wairarapa
V A R I E T I E S	<p>Coastal Region: early-ripening reds, crisp Sauvignon Blanc and premium Chardonnay.</p> <p>Hillsides: predominately planted to red varieties.</p> <p>Pinot Gris: 439ha (2014). Aromatic, spicy, bold ripe wines with balanced acidity and good body, retaining excellent varietal character and freshness.</p> <p>Syrah: 332ha (2014). Exciting variety showing great distinction, gaining strength as sites and clones are refined. Wines are perfumed, elegant with ripe fruit, supple tannins and lingering spice.</p> <p>Chardonnay: 1,006ha (2014). Flagship white variety with excellent fruit intensity and complexity. Wines are full-bodied, lengthy, almost opulent but with finely-tuned acidity balancing the richness.</p> <p>Sauvignonn Blanc: 937ha (2014). Rich, tree fruit, underpinned by bright acidity, they often seen a degree of oak fermentation or maturation, adding complexity and body.</p> <p>Pinot Noir: 311ha (2014). Vast majority is used for sparkling wine.</p> <p>Red Blends: 1,424ha (2014). Bordeaux blends are highly successful, producing wines of great power, elegance and longevity. Merlot is increasing the higher percentage in blends, offering rich, plummy depths.</p> <p>Merlot: 1,080ha. Malbec: 95ha. Cabernet Sauvignon: 249ha.</p> <p>Vioignier, Malbec, Tempranillo, Italian and Spanish varietals.</p>	<p>Ideal for high quality reds.</p> <p>Syrah with Merlot and Malbec.</p> <p>Cabernet has difficulty ripening and is in decline.</p> <p>80% red.</p>	<p>Pinot Noir: 500ha (2014). Richly flavored and warm with a savory undercurrent while retaining perfumed varietal character.</p> <p>Sauvignon Blanc: 318ha (2014). Intense and vivid with perfume and mineral textures. Mix of herbaceous and tropical.</p> <p>Pinot Gris: 62ha (2014).</p> <p>Riesling: 32ha (2014)</p> <p>Gewurztraminer: 3ha (2014).</p> <p>All successful with the long growing season. Allows late harvest and botrytised wines.</p> <p>Syrah: 9ha (2014). Emerging and showing promise. Elegant, perfumed, with spice. Replacing Cab and Merlot.</p>
V I T I			<p>Yields well below national average.</p> <p>Naturally low crops. Due to the impact of the cold southerlies (winds) from the Antarctic.</p> <p>Lower yields at flowering can often mean smaller bunches.</p> <p>The locally famous “Gumboot clone” (Abel Clone: ex-Burgundy and thought to be from DRC) is widely planted. Also clone 5, 10/5, and Dijon clones.</p>
V I N I			<p>PN: Barriques are still commonplace for the maturation, although punchdowns are now becoming more commonplace.</p>
S U B - R E G I O N S	<p>Sub-Regions: (unofficial)</p> <p>River Valleys: Mohaka, Esk River Valley, Tutaekuri River Valley, Ngaruroro River Valley.</p> <p>Coastal Areas: Te Awanga, Northern Esk Valley. Enjoy a more pronounced maritime influence, generally long growing season, cooling sea-breezes add elegance and freshness. The gravely coastal vineyards of Bay View to the north and Te Awanga to the south are famed for early-ripening reds, crisp Sauvignon Blanc and premium Chardonnay. The cooling sea-breezes add elegance and freshness.</p> <p>Alluvial Plains: Korokipo, Bridge Pa, Gimblett Gravels, Ohiti. Established early and now widely-planted, the plains cary as much in soils and mesa-climates as they do in varieties and styles. Shaped by rivers and criss-crossed with gravel beds, free-draining alluvial soils and stony terraces, they fan out between Havelock and Napier, covering the pioneering vineyards of Tradable and Meaner plus the barren inland Gimblett Gravels / Bridge Pa triangle area, home to some of the region’s best wines.</p> <p>Hillsides: Havelock North. Long established around Havelock North, hillsides in the Maraekakaho and Bay View produce stellar wines and as vines march inland, the central Hawke’s Bay limestone hills are yielding promising aromatic Pinot Noirs.</p> <p>Central Hawke's Bay.</p>	<p>Trademarked brand of the Gimblett Gravels Winegrowing District.</p> <p>To use on labels:</p> <p>Part of association.</p> <p>95% of soil meeting designation.</p> <p>95% of grapes sourced from region.</p> <p>Subject to audit.</p>	<p>Sub-regions (north to south):</p> <p>Main physical different between the 3 is elevation. 50 meters from Martinborough to Gladstone, and a further 50 meters to Masterton.</p> <p>Masterson: Oldest grape growing center in the region. Bold climate, and gravelly limestone soils. Tararua Ranges influence over the wide open spaces triggering a cycle of frosts and sunny days to develop complex flavprs. SB and PN.</p> <p>Gladstone: Just south of the district’s largest town, Masterton, free-draining river terraces, a cooler climate with plenty of sunshine. Fast growing with room to expand. Some clay amongst the stony silt loams suits PN very well, alongside lively Sauvignon Blanc and impressive aromatics.</p> <p>Martinborough: The most southern sub-region with free-draining soils and a cool, dry climate. Small, family-owned producers. Climate and soil similar to Burgundy. Acclaimed PN, vivid SB, poised aromatics and elegant Syrah.</p> <p>Martinborough Terrace</p>
P R O D U C T I O N	<p>75 wineries (2015)</p> <p>74 growers (2015)</p> <p>Major Producers: Bridge Pa, Craggy Range, Esk Valley Estate, Ngatarawa, Sacred Hill, Sileni, Te Mata, Trinity Hill.</p>	<p>The association includes 20 wine producers and 4 winegrowers.</p>	<p>Many small, high quality wineries.</p> <p>Grower-producers.</p> <p>67 wineries (2015).</p> <p>14 growers (2015).</p> <p>Major producers: Ata Rangī, Dry River, Palliser Estate, Voss Estate.</p>

New Zealand - The South Island

	Nelson	Marlborough	Canterbury	Central Otago
H A	1,139ha (2015). Increased from 695ha 2006.	23,203ha (2015). Up from 11,488ha in 2006. Largest region.	1,451ha (2015) up from 925 in 2006.	1,951ha in (2015) up from 1,253 in 2006.
L O C A T I O N	Northwestern region. Rolling hills off coast line. Varied topography. 41 degrees latitude. Major national features: Tasman Mountains, Richmond Ridge, Waimea River, Tasman Bay, Golden Bay.	Northeastern region. Wairau Valley dominates the region. Surrounded on 3 sides by mountains. Rain protection. 41 degrees latitude. Major national features: Richmond Range (divides Nelson and Marlborough), Wither Hill Range, Kaikoura Ranges, Wairau River, Awatere River.	Central, eastern coast. Spanning nearly 300km between north and south vineyards. Southern Alps to the west. 43 degrees latitude. Major natural features: Waimakariri River, Waipara River, Puketeraki Range, Canterbury Plains.	World's most southernly vineyards. Country's highest vineyards and most inland. Mostly hillside plantings. 45 degrees latitude. Major natural features: Southern Alps, Lake Wanaka, Waitaki River (North Otago).
C L I M A T E	Sheltered topography gives protection from strong winds, combined with its proximity to the sea gives milder temperatures than other South Island regions. Mitigated frost ricks, tough autumn rains can be an issue. Long, warm summer days. Good diurnal variation. Cool autumns. Plenty of sunshine. 2,405 average annual sunshine hours. Regularly NZ's sunniest region. Cooler & wetter than Marlborough. Mean February Temps 63.8F (17.7C). 21.3" growing season rainfall.	Maritime influence. Plenty of sunshine, moderate temps, and strong diurnal variation are keys to fruit intensity and high acid levels. The eastern coastal aspect bestows cooling sea breezes. Protective mountains give relief from extreme rain and wind. Summers dry and sunny with cool night. Balanced acidity. Long Indian summers occasionally dice with drought but more often allow a wine range of styles to flourish. Mean February Temp 64.2F (17.9C). 15.7" growing season rainfall. 2,457 average annual sunlight hours.	Maritime climate. Autumns cooler than Marlborough. Dry, average rainfall 24" annual due to Southern Alps. 14.1" rainfall during growing season. 2,100 hours average annual sunlight hours. Mean February temps 63.8F (17.7C). Often very warm summers helped by hot, dry nor-wester winds. Tempered by cooling sea breezes and occasional cold southerly fronts. Moderate risk of frost. Canterbury's long dry autumns coupled with good diurnal variance help provide phenolic ripeness, complexity and a variety of styles.	Semi-continental climate. NZ's greatest diurnal and seasonal temp variability. Mean February temps 63.8F (17.7C). 10.8" rainfall during growing season. 25" annual average rainfall. 1,973 average annual sunshine hours. Frosts are accepted and planned hazard. Marked diurnal variation. Short, hot summers. Dry autumns and overall low humidity are significant assets.
S O I L	Varied soil types. Regional soils are broadly gravelly silt-loam over a clay base, allowing good water-holding capacity. Gravelly, alluvial, flay silt loams in the Waimea Plains give lighter, prettier wines. Gently-rolling, sandy topped clay-based soils with weathered gravels in Upper Muter give depth and richness.	Numerous soil patterns found throughout valley. Shallow, stony, well-drained soils preferred. Surface stones visible in some vineyards. They reflect sun and retain warmth. Ancient glacial deep free-draining stony soils. The extensive braided river system left a threaded legacy of stony sandy loam over very deep gravels. Rapaura is stoniest. Lower Wairau has more loam and thus water retention. Clay is prevalent in the southern valleys, assisting PN. Awatere is more fragmented, with gravelly silt-loams with wine-blown loess.	Soil types vary across large terrains. Silt loams over gravel in the Canterbury Plains. Waipara Valley: gravel deposits from its river plus limestone-derived clays on the hillsides that suit PN. Limestone-derived clays in the eastern Waipara region.	Heavy deposits of mica and schist in silty loams. Different than any other regions. Generic bedrock is a mixture of schist and greywacke alluvium which makes the land difficult to work in areas where it reaches the surface. There is also foliated mica and quartzite deposited as glacial moraines, coarse-layered river gravels, ancient lakebed clays, sands and wind-blown loess deposits.
V A R I E T I E S	Sauvignon Blanc: 540ha (2014). Elegant, restrained expression, displaying lovely and texture and mineralogy with crisp, tropical fruit and fresh herbal nuances. Pinot Noir: 241ha (2014). Weighty in Moutere or pretty in Waimea. PN always expressive and perfumed, with fine, ripe tannins, and complex depths. Chardonnay: 93ha (2014). Depth, elegance and complexity. Fruit is pure and intense. Top wines have great longevity. Pinot Gris: 139ha (2014) Riesling: 44ha (2014). Often late harvest. Gewürztraminer: 26ha (2014). Riesling, PG, and Gewurz are expressive and fine with poised acidity and rich flavors. The climate allows for a variety of styles.	Sauvignon Blanc: 17,725ha (2014). Pungently aromatic, vividly pure fruit, herbaceous and exotically tropical, plus mineral depths. Pinot Noir: 2,492ha (2014). Refining clones and sites. Dark cherry, plums with red fruited spicy background, mid-weight, fine tannins. Chardonnay: 1,038ha (2014). Serious to unoaked styles. Well structured with excellent intensity and complexity. Stone fruit and citrus. Pinot Gris: 968ha (2014). Riesling: 309ha (2014). Gewurztraminer: 92ha (2014). Vioignier: 17ha (2014). Styles range from dry to sweet, taut to lush, including late harvest and botrytised wines. Others: Gruner Veltliner, Syrah, Arneis, Tempranillo.	Pinot Noir: 416ha (2014). Ranging from perfumed and pretty to dark and brooding. Long growing season gives wines of finesse and depth, with supple structure and good complexity. Sauvignon Blanc: 386ha (2014). Aromatic with crisp, fresh acidity and a mineral core, wines show clear, juicy fruit and lovely texture and good weight. Chardonnay: 83ha (2014). Widely planted. Range of styles. Good structure and body, finely poised acidity and rich citrus. Riesling: 300ha (2014). Pinot Gris: 202ha (2014).	No other area as dependent on one variety. Helped put NZ known for red wine. Pinot Noir: 1,484ha (2014). Fragrant, lush fruit, taut structure, silky texture, true intensity. Marked differences in sub-regional styles. Chardonnay: 52ha (2014). Citrus and mineral, tightly structured, fine-bodied. Can be reserved young but unfold great complexity and elegance. Sauvignon Blanc: 45ha (2014). Mineral and gunflint, herbaceousness with pineapple and passionfruit. Pinot Gris: 226ha (2014). Riesling: 86ha (2014). Gewurztraminer: 18ha (2014). Riesling stands outs, plus smart PG and Gewurz. Styles ranges from austere dry to decadently sweet but always sparkling fruit and precise structure. Perfumed and pretty Roses (saignee method). Complex and delicate Methode Traditionelle.

	Nelson	Marlborough	Canterbury	Central Otago
VIT	Main PN clones are UCD 5, 667, 777, 10/5, and Abel.	Cool climate viticulture. Irrigation common. Over irrigation is common with contract growers so quality incentives have been popular. PN clones are varied with 10/5, Abel, Pommard, 667, 777, 114, and 115 most common.	Low rainfall and moderately fertile soils help control vine vigor and canopy. Drought risk is mitigated by irrigation. PN clones are wide and varied and include Abel and Dijon, with the 10/5 and 2/10 representing some older stock.	Viti dates back to the gold mining days in the 1800s. Mostly hillside plantings to improve sun exposure and minimize frost risk. Site selection is everything. Noticeable investment in viti. Practice of natural farming methods, many without certification. Irrigation may be used. PN close are numerous with UCD5, UCD6, Abel, 667, 777, 114, and 115. Some older 2/10 and 10/5 can be found.
VINI	PN: Mostly barriques are used, but some evidence of the use of punchdowns is now evident.	SB often cold fermented with non-native yeasts. PN: Typical pre-ferment cold soak for 2-5 days and 7-21 days of post-ferment maceration. New oak normally 20-50% new, usually French, but trending to less new oak.		With a little warmer climates, fruits tends to be riper and bolder so the use of newer oak tends to rise (not too much though - 20-40%). Black cherry, freeze-dried raspberry, wild thyme and undergrowth are common descriptors.
SUB-REGIONS	Sub-regions (unofficial): Waimea Plains: Means "River Garden". Traditional area for crops, orchards, and hops. Stony alluvial soils and a moderating maritime influence. Wines tend to be lighter and fresher in style than Moutere with bright aromatics. PN is perfumed. Chardonnay rich and expressive, aromatics vibrant with flinty mineral. Upper Montere (Moutere Hills): West of Nelson, the hills are slightly warmer and wetter than Waimea. Gravel-threaded clay soils give richness and texture. PN showing structure and fine tannins. Chardonnay complexity and depth. SB aromatic and mineral. Nelson's early first planting. Remains source of some of the finest wines. Motueka: Takaka (Golden Bay):	Sub-regions (unofficial, north to south): Wairau Valley: Old riverbank and riverbank soils. Diverse aspect and rain give many meso-climates. Broadly, it covers cooler, drier inland sites, barren stony, early-ripening sites to sea-breeze moderated coastal sites. Soils are more gravelly to the north nearer the riverbed. Awatere Valley: Most geographically distinct, lying south of the Wairau Valley and stretching inland from the sea, the valley climbs towards the inland Kaikoura ranges. Cooler, drier, windier and often with a degree of elevation. Sites with typically lower yields produce bright, aromatic PN, and dramatic, distinctive SB. Southern Valleys: Wrapping around the surrounding hills of Omaka, Fairhall, Brancott, Ben Morvan, and Waihopai Valleys. Soils and meso-climates vary but tend to be heavier with more clay than Wairau and it gets cooler and drier further south into the valley.	Sub-regions (unofficial, north to south): Waipara Valley: Concentration of vineyards is part due to warmth. Teviotdale Hills are just high enough to shelter the region from the cool northeasterly winds. More growing degree days. Soils are gravels and clays. As sites and meso-climates are explored, distinctive PN and Chard emerge. The drying nor-wester can challenge, the surrounding hills offer protection and a slightly warmer climate than the rest of the Canterbury. Vivid, eloquent Rieslings. Canterbury Plains: Large area. Predominantly flat (or very gently contoured) land has free-draining, shallow greywacke-based gravel soils and a slightly cooler climate than the more protected Waipara Valley. Riesling and PN are highlights, with the longer growing season giving graceful, expressive wines. Waitaki Valley: Has separate GI. Recent expansion on the North Otago boundary. Shows promise. Loess and limestone/greywacke/schist soils, warm summers and long dry autumns give varietal intensity, complex fruit and a distinct mineral character to the predominantly PN and aromatic plantings. Ancient river beds with alluvium and loess deposits on the flat areas of the southern side of the river. Limestone-dominant soils a little further inland closer to and in the hills. Bunch weights nearly half compared to elsewhere in the South island. Frost biggest threat. In an area on the border of being too cold for vines.	Main sub-regions lie within close reach but the distinctive mountainous terrain means each occupies a uniqueness. Sub-regions (west to east): Gibbston: East of Queenstown along the Kawarau Gorge. The highest sub-region. Cooler climate and north-facing hillside vines ripen later than neighboring sub-regions. Lighter though still intense wines. Wanaka: 80km north of Queenstown. Cooler and slightly wetter than the Queenstown/Cromwell area. Lake Wanaka provides reflected radiation and mitigates frost. Delicate and vivid wines. Windier and more exposed clusters. Schist and wind-blown loess. Very fine fruit qualities, chalky fine tannins, higher acidity and a long complex finish. Cromwell/Lowburn/Pisa: Western side of Lake Dunstan stretching north for 25km from Cromwell. Majority of the plantings are situated on the lower terraces and valley floor running parallel to the snow-capped Pisa mountain range. Significantly more schist and quartz deposits, or loess and schist. Shows darker cherry fruit and more wild thyme/dried herb qualities. Bannockburn: South bank of the Kawarau River at the southern terminus of the Cromwell Valley. One of the warmest, driest sites in the region. Harvest can be up to a month ahead of Gibbston. Highly distinctive and complex wines. Bendigo: Northeast of Cromwell. Warmest of all sub-regions. Vines planted on gentle north facing slopes. Wide-scale plantings on stony soils. Extreme hot summer sun and cold clear nights. Alexandra Basin: Most southerly. Climate is dry and runs to extremes in both summer and winter but marked diurnal variation right up to harvest gives vividly varietal, aromatic, finely structured wines. Tend to be lighter in body with more red cherry and strawberry, noticeable acidity, and mealy tannins.
PRODUCTION	35 wineries (2015). Increased from 29 in 2006. 38 growers (2014). Decreased from 46 in 2006. Major producers: Greenhough, Seifried Estate, Neudorf. Recommended PN producers: Brightwater Vineyards, Neudorf, Rimu Grove, Richmond Plains, Tohu, Woollaston.	140 wineries (2015) Up from 106 in 2006. 535 growers (2015). Up from 428 in 2006. Cloudy Bay put region on the map. 1973: Montana planted 1st vines, shipped to Auckland for vini. 1989: Custom crush facilities. Major producers: Allan Scott, Cloudy Bay, Fromm, Hunter's, Saint Clair, Spy Valley. Recommended PN producers: Churton, Mahi, Cloudy Bay, Fromm, Clos Henri, Clos Marquerite, Framingham, Grewacke, Villa Maria.	67 wineries (2015) up from 48 in 2006. 18 growers (2014) down from 32 in 2006. Major producers: Pegasus Bay, Pyramid Valley, Mud House, Giesen. Great potential for expansion. Recommended Producers of Pinot Noir: Pegasus Bay, Pyramid Valley, Bell Hill, Bellbird Spring, Fancrest Estate, Black Estate, Ostler, Valli, John Forrest, Q Wines.	127 wineries (2015) up from 82 in 2006. 32 growers (2015) down from 50 in 2006. Tremendous expansion of vineyard area and development of districts. Major producers: Rippon, Peregrine, Felton Road, Mt. Difficulty. Recommended Pinot Noir producers: Desert Heart, Misha's Vineyards, Prophets Rock, Ellero, Felton Road, Hawkedun Rise, 8 Ranges, Burn Cottage, Carrick, Chard Farm, Maude Wines, Mondillo, Surveyor Thompson, Wooing Tree, Two Paddocks.