



REGIONAL SUMMARY REPORT Marlborough 2021/22

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Prepared for Sustainable Winegrowing New Zealand

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This report summarises data collected by Sustainable Winegrowing New Zealand (SWNZ) from its members, as well as supplementary data from other sources. These data sources have been used throughout the report:

- 1 - GrapeLink spray diaries (2021/22 season)
- 2 - Wine industry Sustainability Engine (WiSE) questionnaire data (2021/22 questionnaire)
- 3 - New Zealand Wine Annual Report 2022
- 4 - Stats NZ. Horticulture 1994 to 2020 by region. Extracted 28 Nov 22 - data to end of 2019.

1. Region Overview

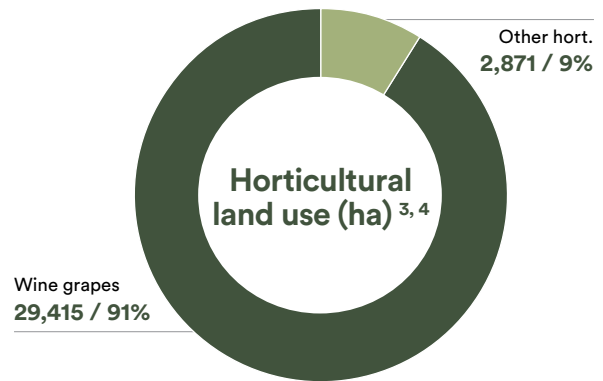
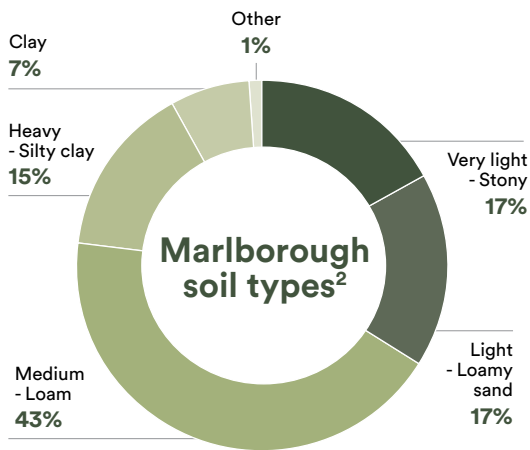
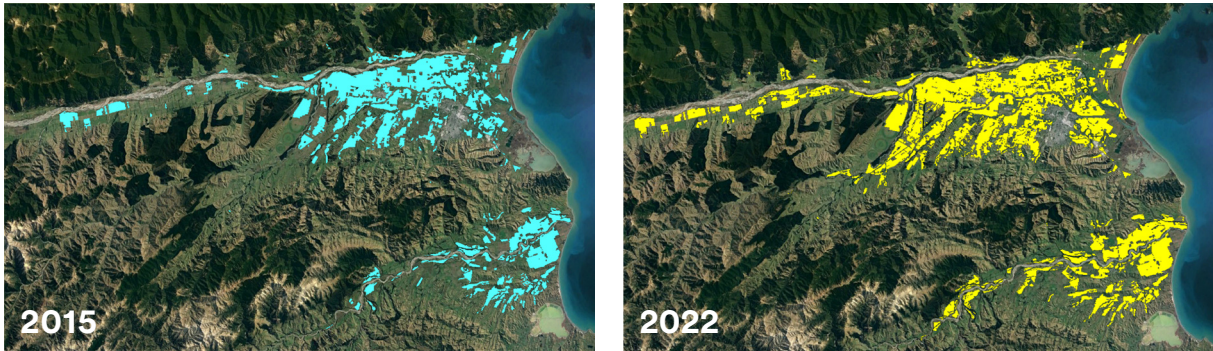
Marlborough is New Zealand's flagship wine region, which in combination with Sauvignon Blanc, put the country on the international wine stage. Much more than just Sauvignon though, Marlborough offers increasing depth in both varieties and terroir.

Early pioneers first planted in 1873 in the Ben Morven Valley, with further vineyards established through to the 1960s. There was then a lull until grapes were again planted in 1973, despite stiff opposition from local farming and forestry interests. Nowadays, viticulture is dominant, with over 29,000 hectares of vines (approximately 70% of the national total) under the care of wine producers of all sizes.

Consistently ranking as one of New Zealand's sunniest and driest regions, Māori referred to the Wairau Valley as 'Kei puta te Wairau' - 'The place with the hole in the cloud' – reflecting the outstanding protection offered by the topography. The Wairau River bisects the valley west to east, with the Richmond Ranges to the north and medium sized foothills to the south. The combination of a cool yet high sunshine climate, low rainfall and free-draining, moderately fertile soil produces uniquely vivid wines. The diverse soils and meso-climates are revealing subregions, and it is within these that Marlborough's exciting future lies.

	Marlborough	NZ
Total planted area (ha) ³	29,415	41,603
Number of vineyards ¹	1075	1,839
Number of blocks ¹	5,532	10,825
Average block area (ha) ¹	5.3	3.8
Average production per ha (t/ha) ³	14.1	12.8
Wine's share of total horticultural land use ^{3,4}	91%	30%

Vineyard area change from 2015 (left) to 2022 (right).



Horticultural land use change in Marlborough³, ⁴



Area (ha)	Marlborough³	% Change	Marlborough wine area as a % of NZ	NZ³
2022	29,415	8%	71%	41,603
2019	27,176	8%	70%	39,061
2017	25,244	8%	68%	36,943
2015	23,452	3%	66%	35,463
2013	22,819	234%	65%	35,182
2002	6,831		43%	15,800

2. Water Use ²

Irrigation accounts for the largest share of water use on vineyards, with water used for frost protection and plant protection spraying coming a distant second and third. Irrigation of wine grapes is the largest source of water use in the winemaking process, accounting for over 95% of total industry water use.

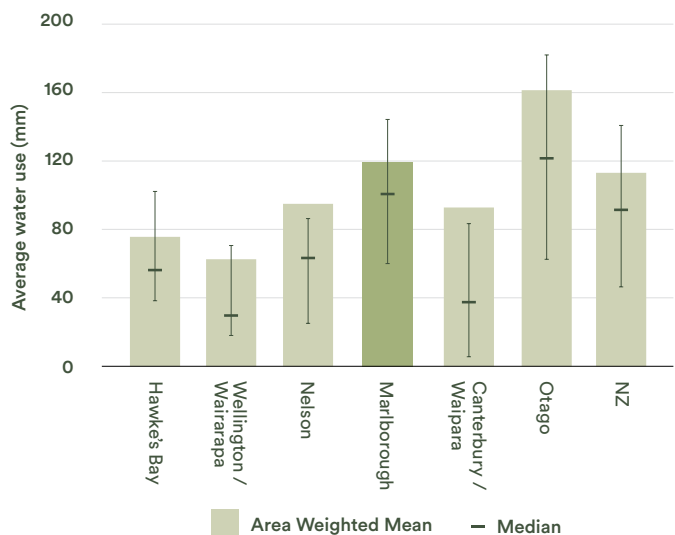
Irrigation Season: Oct-Apr

	Marlborough	NZ
Number of irrigated vineyards	853	1,331
Irrigated area (ha)	25,019	33,483
Average water applied on irrigated vineyards (mm)	119	113
Total water use (m ³)	29,761,500	37,865,900
L/vine	519	475
m ³ /t grapes ^{2,3}	72	71

Total water use: Marlborough

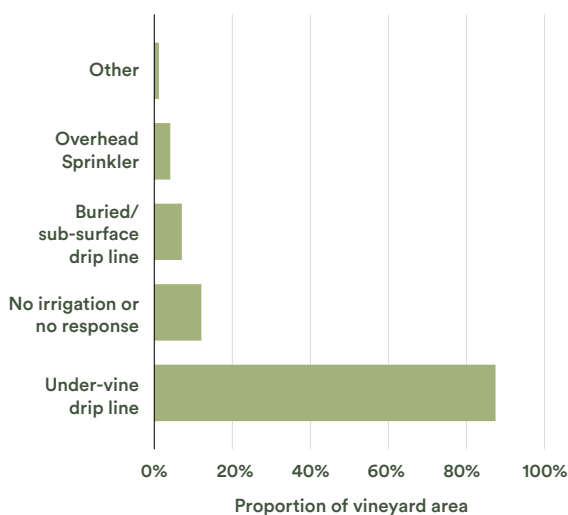
	Rainfall (mm)	Average Irrigation (mm)	Total irrigation water use (m ³)
2021/22	363	119	29,761,500
2020/21	245	169	44,190,400
2019/20	206	135	35,876,700
2018/19	337	101	26,560,900
2017/18	438	87	21,694,700
2016/17	433	127	30,537,000
2015/16	186	169	39,640,800
2014/15	177	169	37,301,700

Regional water use for irrigated vineyards

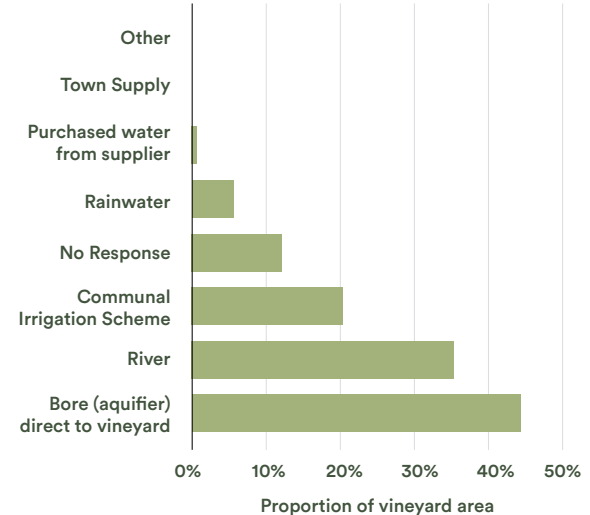


Distribution bars show the 1st & 3rd quartiles
 Note: the area weighted mean can be higher than the 3rd quartile where large vineyards with high water use have a greater influence.

Irrigation Type: Marlborough



Water Source: Marlborough



3. Biodiversity ²

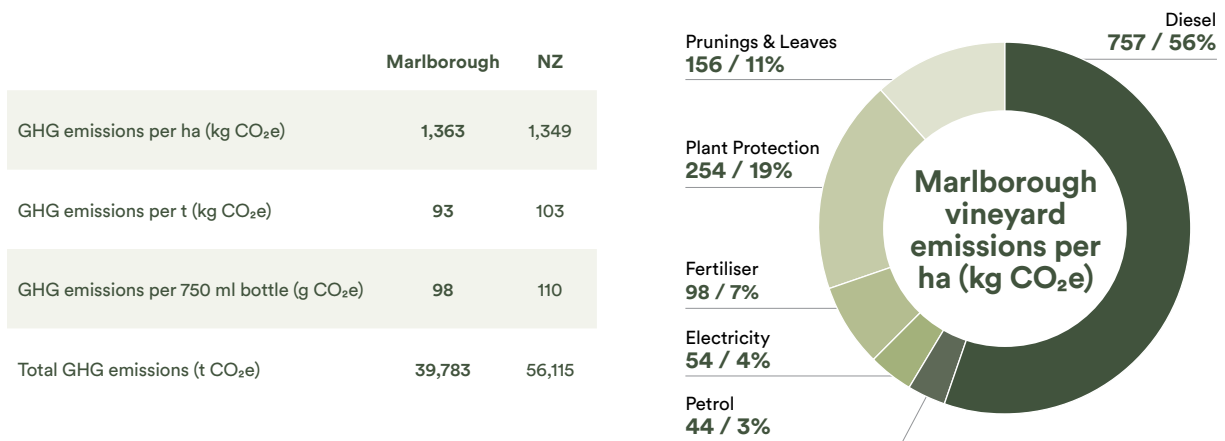
	Marlborough		NZ	
	Number of vineyards	Vineyard area (ha)	Number of vineyards	Vineyard area (ha)
Non-indigenous planting	396	12,724	683	16,594
Indigenous planting	352	14,696	615	19,762
Habitat for indigenous wildlife	327	13,200	503	16,687
Vermin trapping	143	5,240	303	8,302
Planting for bees	80	2,780	173	4,390

Wine growers select the types of biodiversity enhancement activities that they have on their vineyard. The results are shown here as the total number of vineyards with those activities and the vineyard area where these activities are applied.

4. Greenhouse Gas Emissions ^{1, 2}

The New Zealand wine industry is part of a select group of industries, within New Zealand as well as globally, that can measure greenhouse gas emissions at this level of detail. Emissions calculations at individual, regional, and national levels has only been possible through decades of data collection and analysis.

This has given the New Zealand wine industry a significant advantage when it comes to reporting emissions as well as in planning and implementing emissions reductions strategies.



5. Fertiliser Use ¹

Wine grapes require significantly less fertiliser once established than other horticultural crops or livestock farms.

Nutrients of environmental concern, such as nitrogen and phosphorous, are applied at far lower rates on average on vineyards than on most other food production operations, resulting in lower levels of leaching and runoff risks.

	Marlborough	NZ
Average number of fertiliser product applications per block	15	14
Average number of nitrogen fertiliser product applications per block	6	5
Average quantity of nitrogen applied (kg N/ha)	7	6

Regional comparison - Nitrogen fertiliser use

