

2022 Grove Census Harvest Data Report

Introduction

As always, Olives New Zealand is most appreciative of members who took the time to complete and return their 2022 Grove Census forms, even when this was to report “No Harvest”. The data contained in the following report is made available to national and international organisations and researchers. It is therefore very important that the information is as complete as is possible. The benefits to the individual groves in relation to monitoring their own performance and being able to benchmark regionally and nationally is also very important.

The 2022 harvest year was a variable year for many of groves, with a relatively low total harvest tonnage when looking at the last five years. Groves following the Focus Grove recommendations had good harvests/yields while many other groves had no harvest.

Of the groves with No Harvest, a variety of reasons were mentioned:

- Grove is young and not producing (3)
- Regeneration/heavy pruning underway (4)
- Weather issues during flowering/fruit set (4)
- Harvest issues (2)
- Fruit would not shake off.

A number of groves with No Harvest also commented that they have no spray programme.

Some 26% of groves reported “No Harvest”, up from 17% in 2021, and it is assumed that a number of those who did not respond also had no harvest.

This year one of the super groves has provided their harvest tonnage (but no yield). As per usual, no data was received from the other three. The super groves range from 9,000 to 40,000 trees and total approximately 94,000 trees. Collectively the super groves represent almost 30% of the trees in the database. To be brutally honest at least two of these super-groves are not well managed so their data would pull down regional and national averages.

The overall quality of EVOO produced continues to be excellent with all but one of the oils submitted for Certification being classified as Extra Virgin.

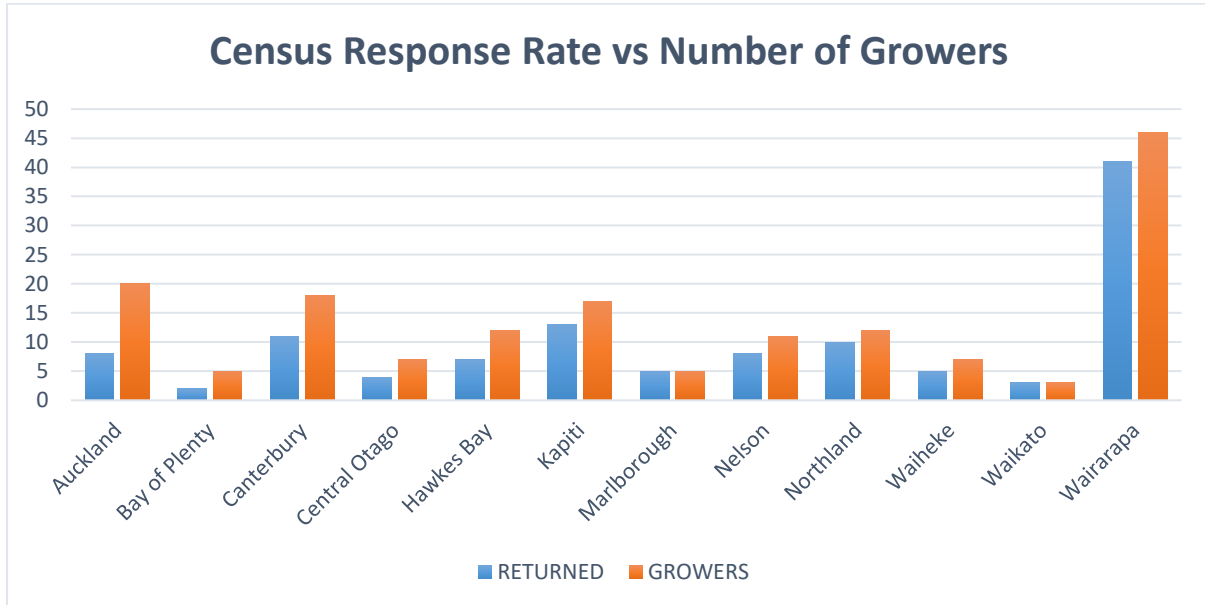
For the second year in a row since harvest data records have been produced, almost half of the groves that had a harvest, harvested more than 10kg per tree on average across their grove. Folk, we are going in the right direction!

Note – this report was prepared as at 18 August 2022. A number of Harvest Data forms were received after that date. While that data has been added to the database and appears in the individual Grove Report, it is not included in this report. Similarly three oils were subsequently received for Certification and their results were not available at the time this report was prepared.

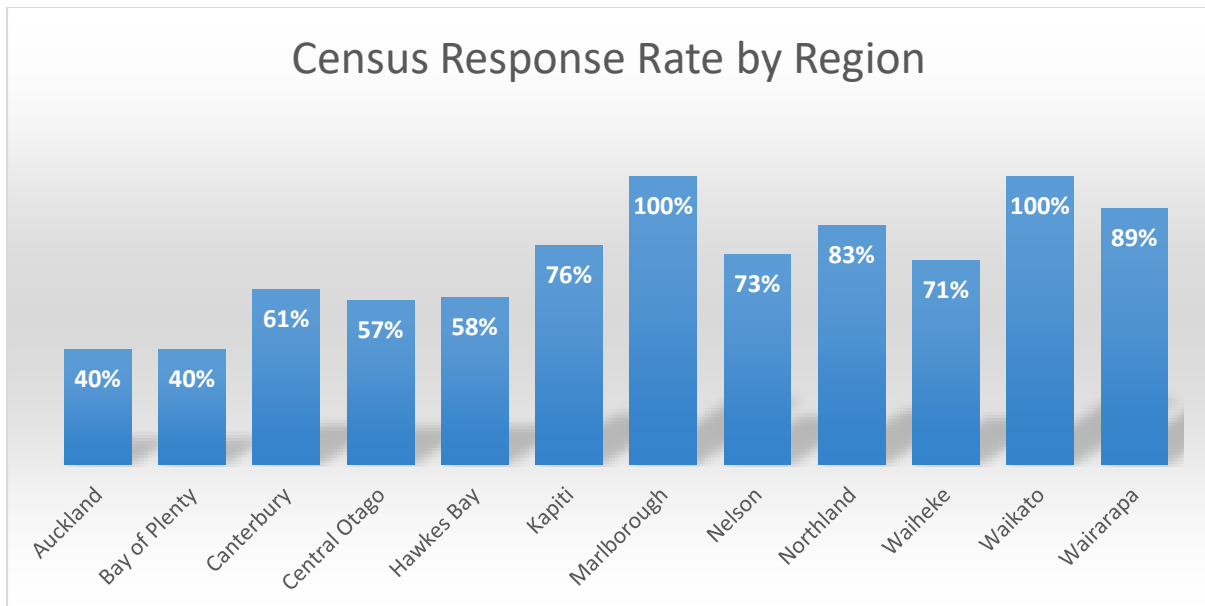
Responses by Region

The 2022 harvest census had a response rate of 72% (117 out of 163 groves) up from 62% in 2021.

The response rate vs number of growers is shown on the following chart.

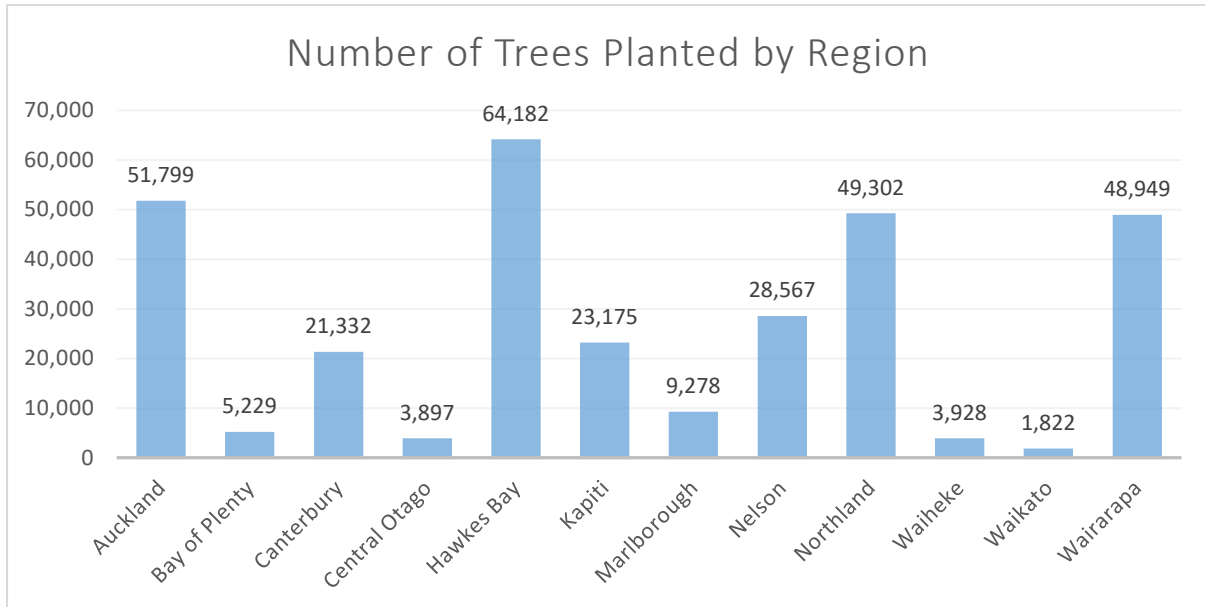


The response rate by region is shown on the following chart.



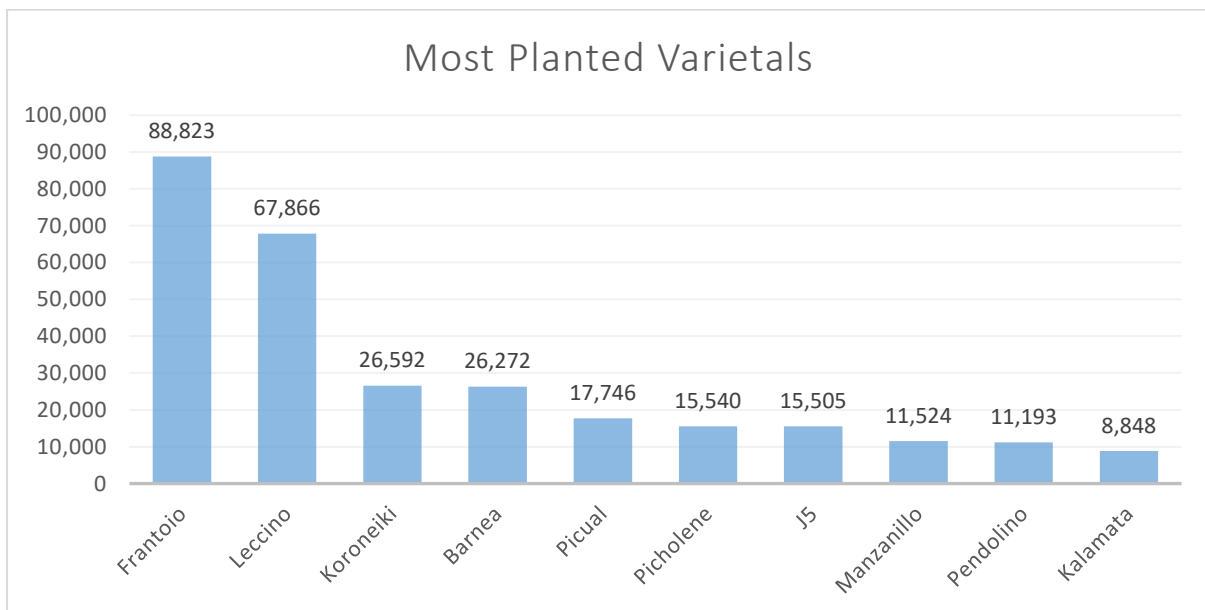
Trees Planted by Region

There is a total of approximately 312,000 trees recorded in the database. Hawke’s Bay is the region with the largest number of trees, followed by Auckland, Northland and Wairarapa. There is now a much more even spread across these four regions. The following chart shows total trees recorded by region.



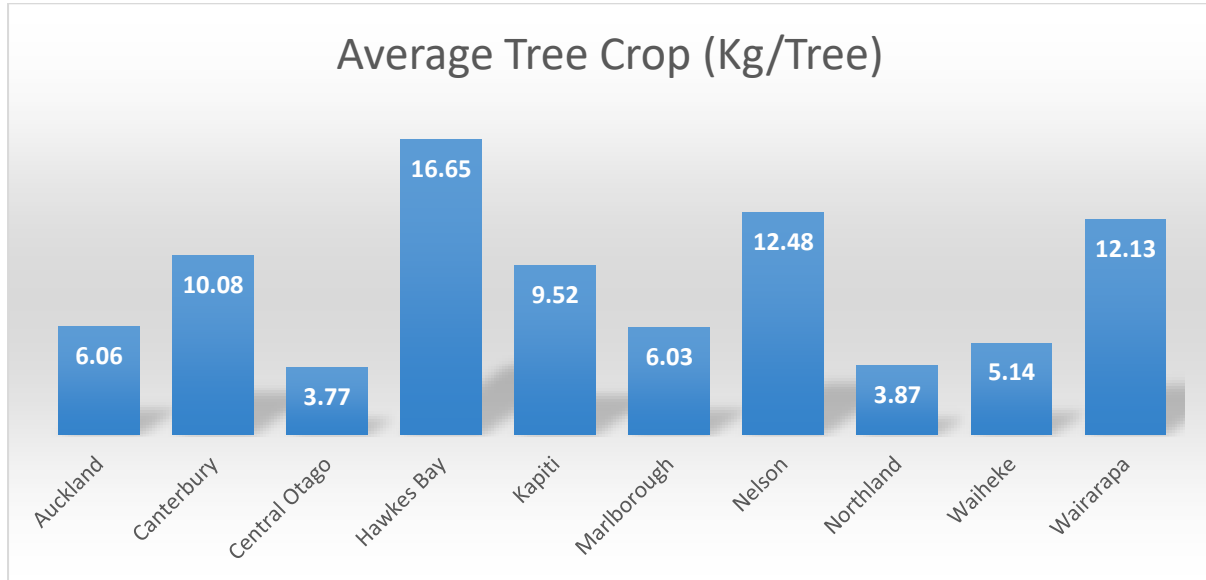
Most Planted Varietals

Frantoio is the most planted varietal across the country, followed by Leccino. The following chart shows the ten most planted varietals.



Crop by Region

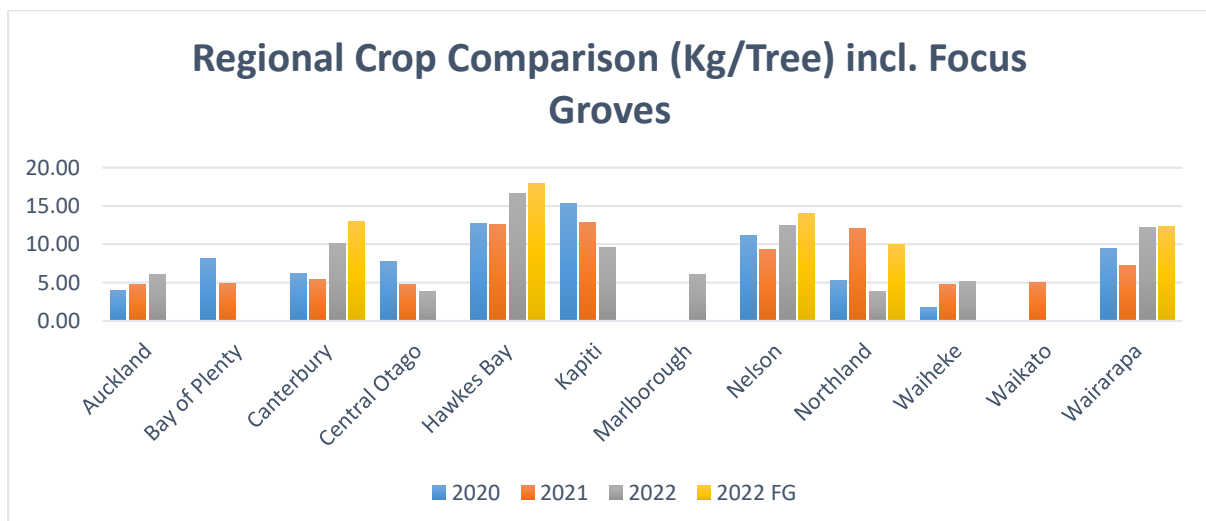
There was significant variation in the crops harvested in 2022 across the growing regions. By far the top performing region is Hawke’s Bay. The other three regions above 10kg per trees are Canterbury, Nelson and Wairarapa. All of these four regions include Focus Groves and other groves following the Focus Grove recommendations. The national average was 10.2kg per tree compared to 10.93kg per tree in 2021.



In 2022 the same four regions that produced an average greater than 10kg per tree were the same as in 2021. Kapiti is almost there and is ‘pulled up’ by the commercial grove in that region that follows the Focus Grove recommendations.

Average Crop 2020 - 2022

The average crop harvested compared to previous years was up for five of the nine regions that regularly participate in the Harvest Census. The Focus Grove blocks continue to out-perform within their regions.



Top Individual Crop by Region

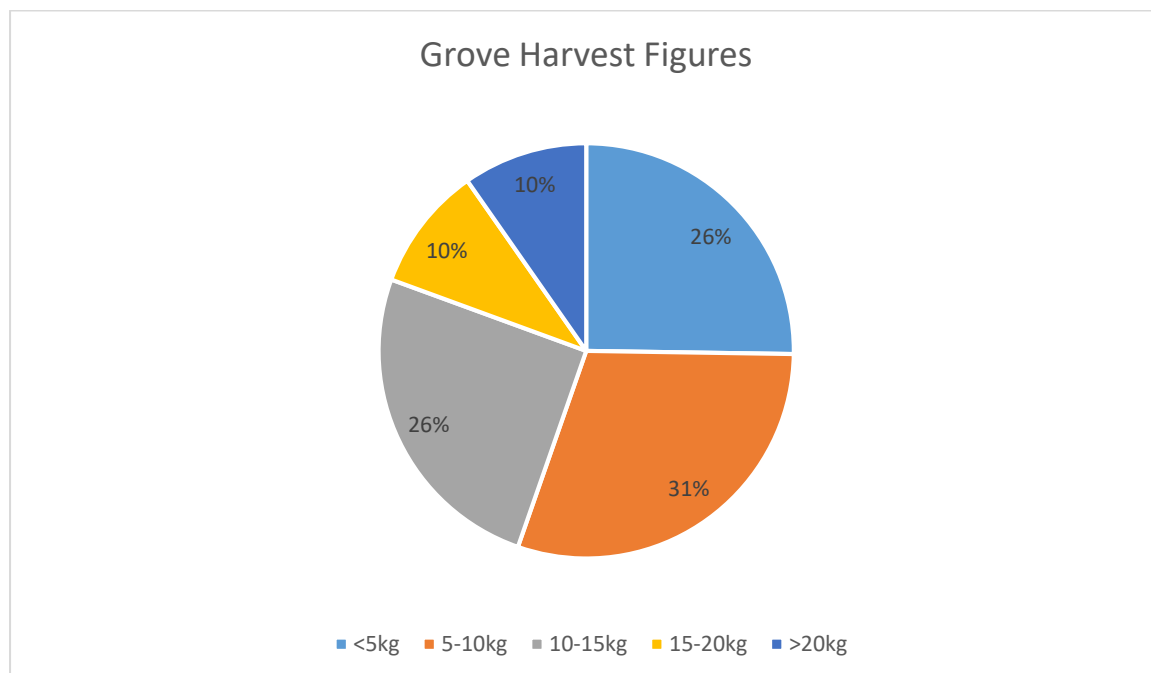
Best cropping variety across regions in 2022 has not been as varied as in the past. There were impressive crops from Picual and Koroneiki in particular.

	2020		2021		2022
Region	Variety	Kgs	Variety	Kgs	Variety
Auckland	Leccino	9.16	J5	6.17	J5
Bay of Plenty	Leccino	20.20	Leccino	12.12	
Canterbury	Picual	21.59	Picholene	25.18	Koroneiki
Central Otago	Leccino	10.57	Leccino	8.00	Leccino
Hawkes Bay	Picual	28.24	Manzanillo	22.27	Picual
Kapiti	Frantoio	38.15	Picholene	26.08	Picual
Marlborough					Koroneiki
Nelson	Picual	26.86	Minerva	17.74	Picual
Northland	Frantoio	19.03	J5	23.25	Koroneiki
Waiheke	Pendolino	5.46	J5	18.82	Koroneiki
Waikato			Frantoio	7.90	
Wairarapa	Picual	25.23	Koroneiki	34.44	Koroneiki

Where no individual varietal figure is available this is shown as blank. This is typically because smaller groves tend to harvest all varieties together.

Crop by Grove

For the second time since harvest data records have been produced, almost half of the groves that had a harvest, harvested more than 10kg per tree on average across their grove. Some 31 groves reported No Harvest up from 17 in 2021. The 2022 grove harvest figures are shown below and do not include the No Harvest groves.



Organic Groves

There are only four groves known to be formally registered as organic or similar; two in Wairarapa, one each in Kapiti and Marlborough. Another in Kapiti is close to completing registration. As these groves are typically still working on their regimes, it is not appropriate for their data to be included separately in this report. Another four groves say they are organic but probably mean that they don't spray.

Spray Programmes

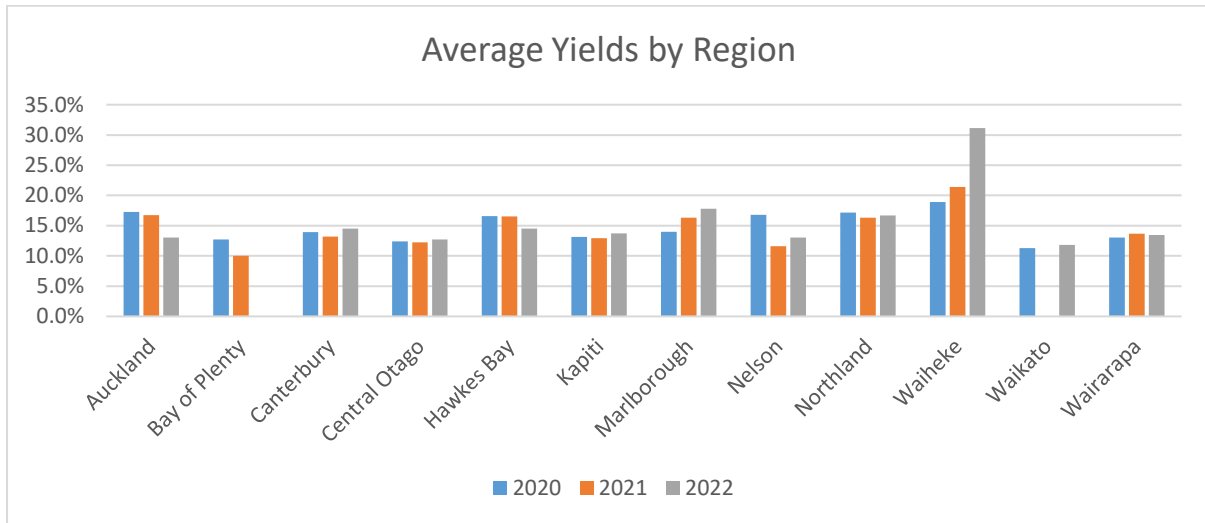
Approximately 30 groves (or 60% of groves that harvested) now have a spray programme. The main diseases that are sprayed for are Peacock Spot and Anthracnose; 30 groves spray to control Peacock Spot and 22 groves spray to control Anthracnose. As per the Focus Grove Project recommendations, Manzate and Mancozeb are the most widely used sprays, used by 24 groves, and Protek is also used by 17 groves. A couple of groves are still using Difference which is no longer recommended as it did not appear to be effective in controlling Anthracnose.

Table Olive Production

There were 5.86 tonnes of table olives produced in 2022, compared to 3.7 tonnes produced in 2021. The largest production was from Hawke's Bay. The only other regions that produce reasonable quantities of table olives are Wairarapa followed by Canterbury.

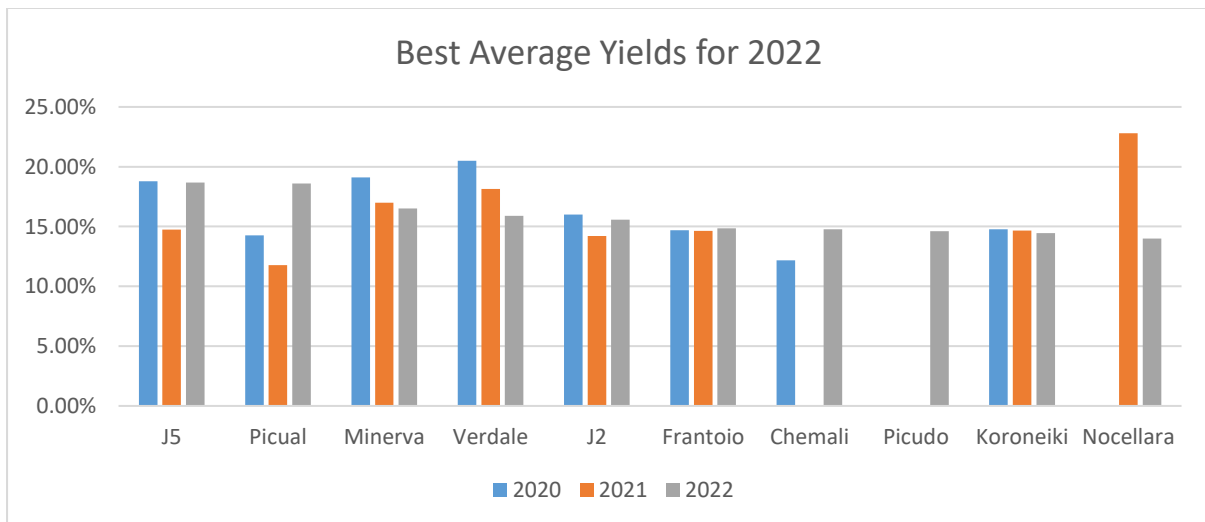
Average Oil Yield by Region

Oil yield percentage in 2022 was fairly similar in most regions to 2021, except for Waiheke Island which was up and Auckland which was down. The national average was 14.6% compared with 13.84% in 2021.



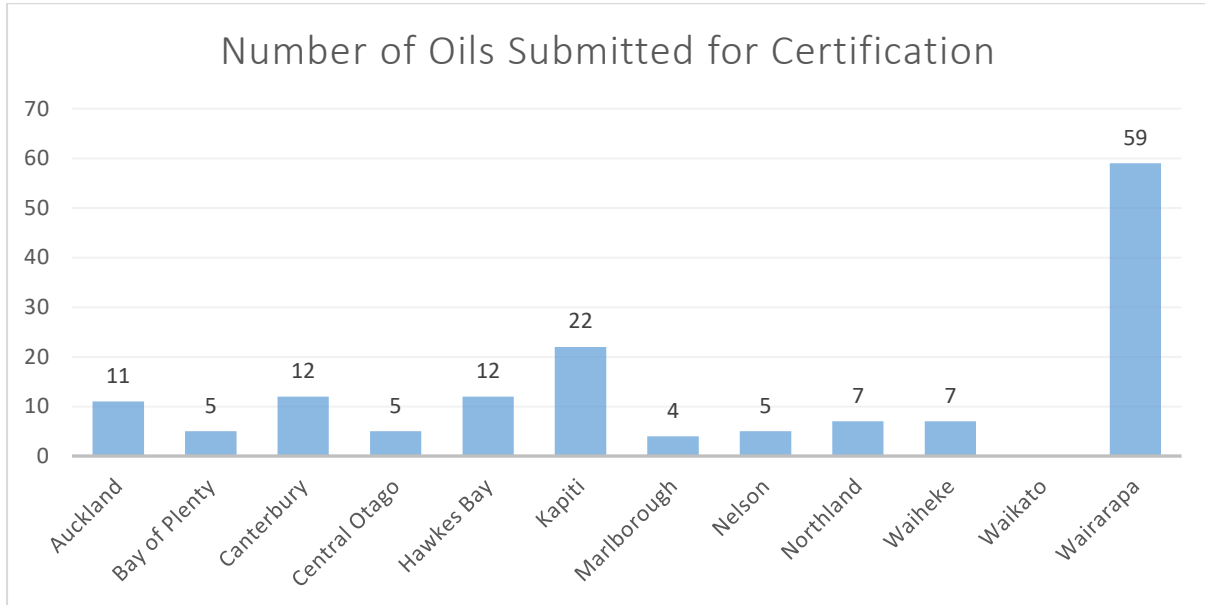
Best Average Yield by Variety

The average oil yields in 2022 were typically varied compared to 2021. The highest average yield was J5 at 18.67% closely followed by Picual at 18.61%.



Certification Summary Data

Some 179 oils were submitted for certification in 2022 (218 in 2021) with only 1 not meeting Certification standard. Failing to meet the full chemical parameters, rather than having defects. The following chart shows the number of oils submitted for certification by region.



The overall range and average for all certification measures in 2022 were as follows.

2022 EVOO CERTIFICATION DATA SUMMARY

CHEMICAL ASSESSMENT	Lowest	Highest	Median	Average
Free Fatty Acid	0.03	0.60	0.16	0.19
Peroxide Value	0.00	12.80	4.90	5.04
Polyphenol Content	88	515	286	283
UV Absorption				
Delta K	< 0.01	< 0.01	< 0.01	< 0.01
232 Nm	1.10	2.75	1.49	1.52
268 Nm	0.08	0.18	0.12	0.12
SENSORY/ORGANOLEPTIC				
Fruity	4.00	6.00	5.30	5.26
Bitter	2.00	4.00	2.95	2.77
Pungent	2.00	4.00	3.00	3.02

The intensity spread based on Polyphenols for 2022 ranged from 81 to 515. The total percentages were 46% both Medium and Intense and 8% Mild. Central Otago had the highest average with 406 and Bay of Plenty the lowest average with 146.

Summary

It is rewarding to see that average grove production has increased from substantially less than 10kg per tree to almost half of groves reporting greater than 10kg average in 2021 and 2022.

The Focus Groves continue to lead the way with grove management practices, as do other groves that are following the same practices. These groves typically report improved harvests year on year, despite the (weather) events out of their control.

The improvement in quality of NZ EVOO is rewarding and supports the value of the Focus Grove Field Days and the Processing Practices Workshops, in particular.

Olives New Zealand thanks the growers who returned their 2022 harvest data.