

2023 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 2023 Grove Census forms, even when this was to report “No Harvest”. The response was disappointing with only a 45% return on the Census. 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 2023 harvest year was a variable year for many of groves, with the lowest total harvest tonnage since 2015. 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
- Regeneration/heavy pruning underway
- Weather issues during flowering/fruit set
- Tree disease
- Harvest issues

Some 28% of groves reported “No Harvest”, up on the 26% in 2022, and it is assumed that a number of those who did not respond also had no harvest.

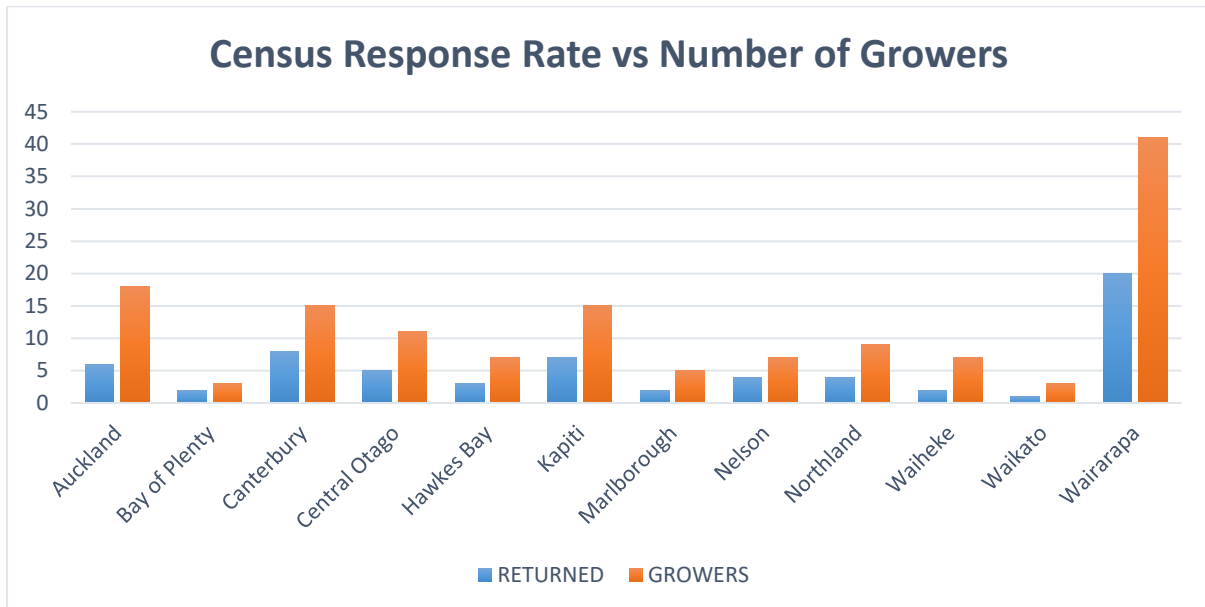
The overall quality of EVOO produced continues to be excellent with all but four of the oils submitted for Certification being classified as Extra Virgin.

Yet again from those that responded with a harvest, the harvest was down to 9.2kg per tree on average across all groves.

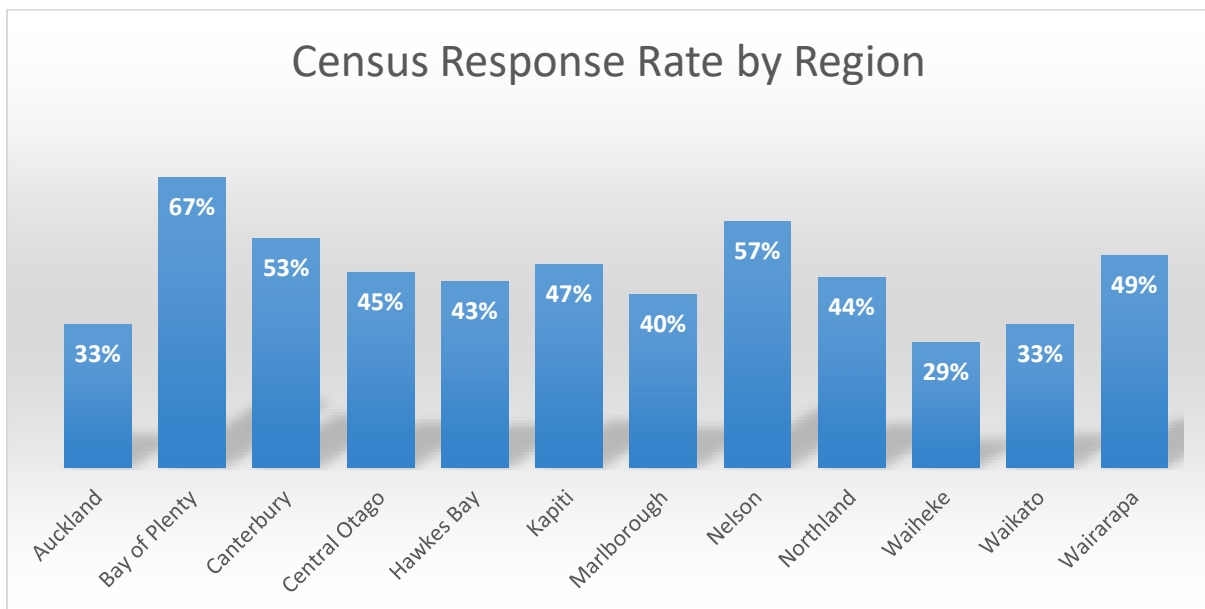
Responses by Region

The 2023 harvest census had a disappointing response rate of 45% (64 out of 141 groves) down from 72% in 2022.

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

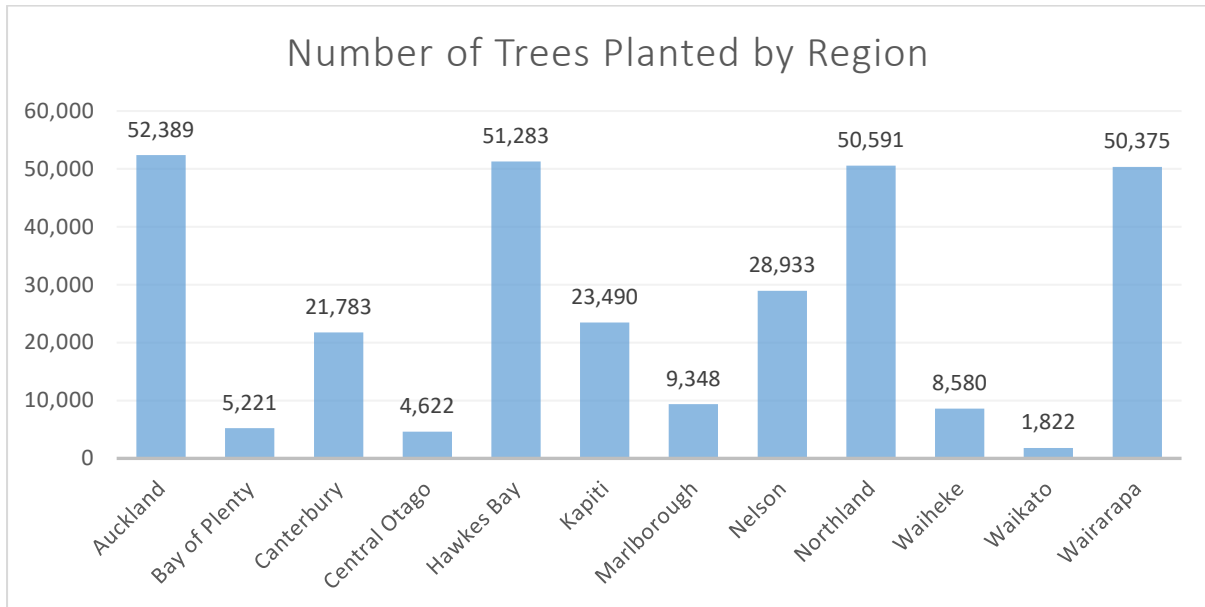


The response rate by region is shown on the following chart.



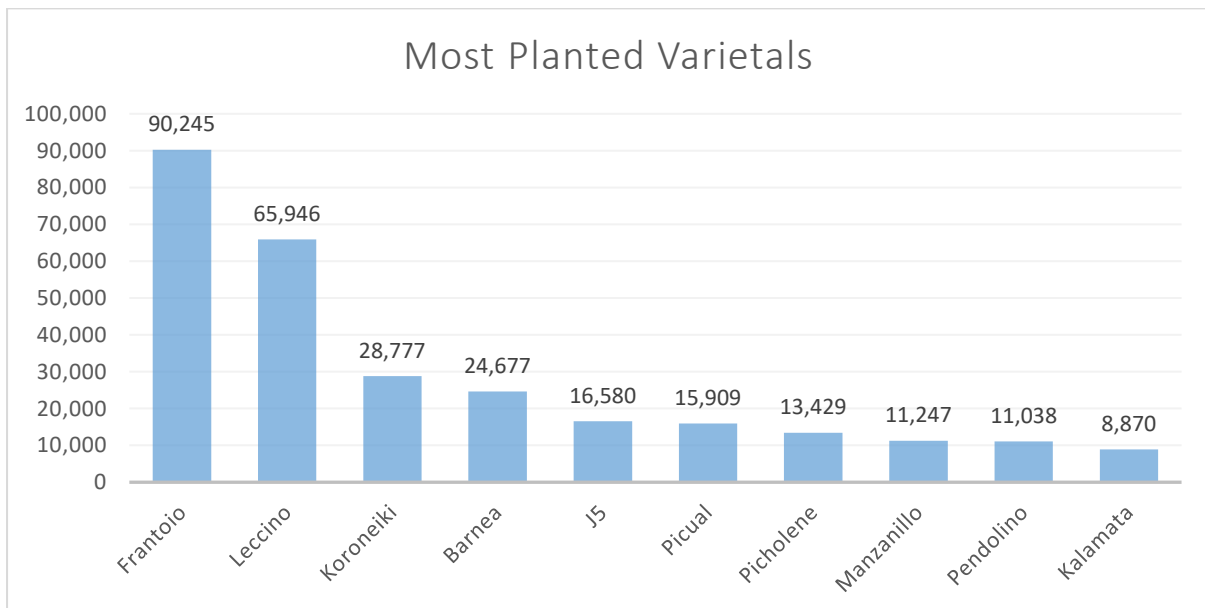
Trees Planted by Region

There is a total of approximately 308,000 trees recorded in the database. Auckland is now the region with the largest number of trees, followed by Hawke’s Bay, Northland and Wairarapa. There is now a much more even spread across these four regions. A large grove in Hawke’s Bay (12,900 trees) has been sold and unfortunately the land has been converted to apples and grapes. The following chart shows total trees recorded by region.



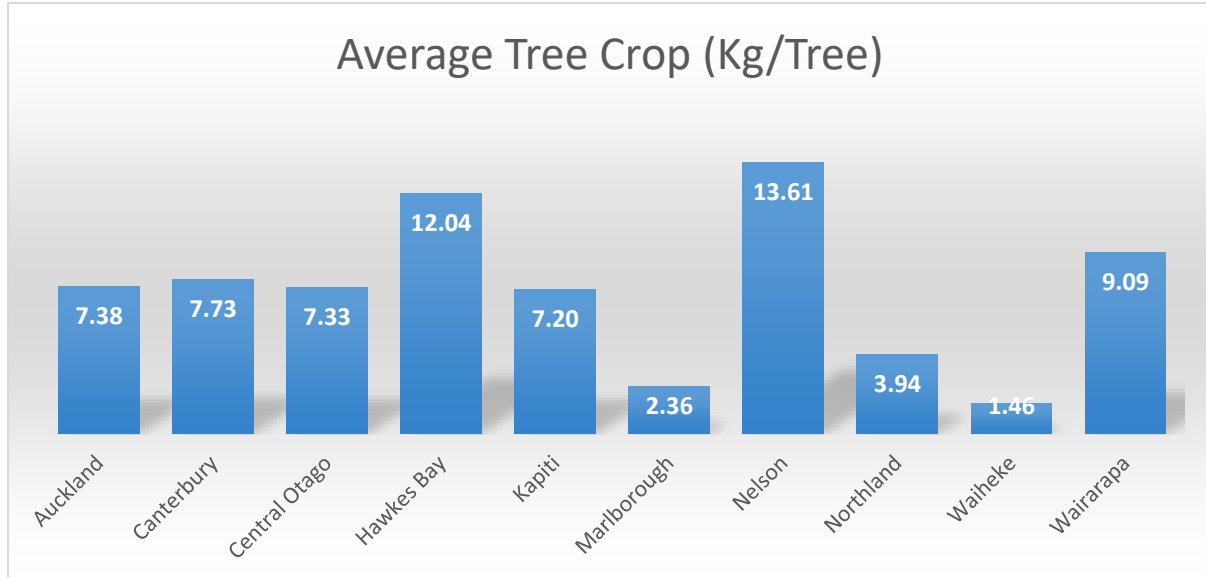
Most Planted Varietals

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



Crop by Region

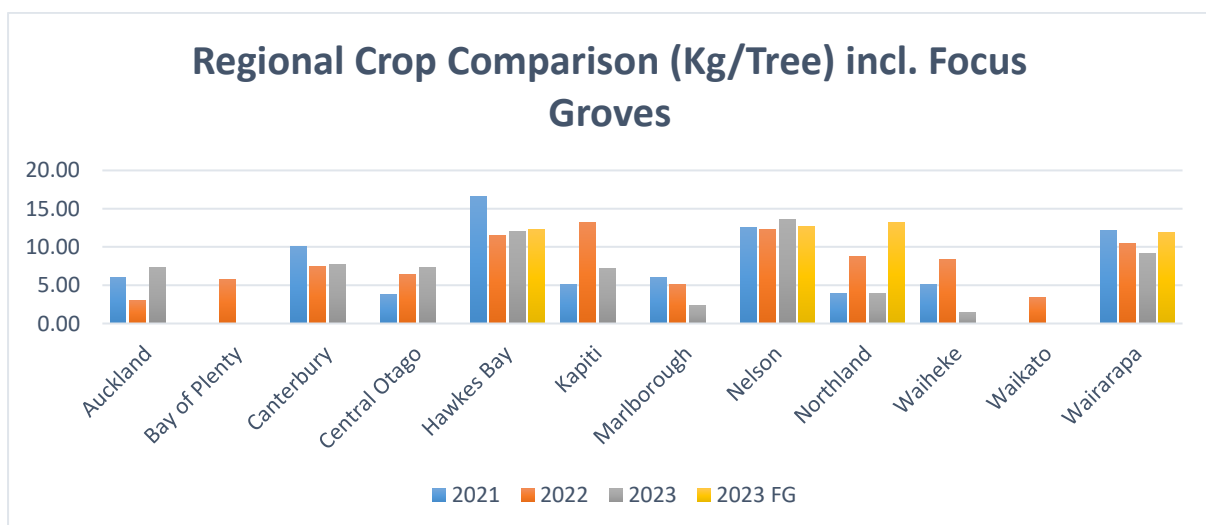
There was significant variation in the crops harvested in 2023 across the growing regions. The top performing region is Nelson, closely followed by Hawke’s Bay. The national average was 9.2kg per tree compared to 10.2kg per tree in 2022.



The lower average tree crop in 2023 is reflective of the wet year across the North Island growing regions and early frosts in some Canterbury areas, which lead to no harvest of entire groves or of some varieties.

Average Crop 2021 - 2023

The average crop harvested compared to previous years was up for four of the nine regions that regularly participate in the Harvest Census, these were three of the four South Island Regions and Auckland. The Focus Grove blocks continue to lead with way within their regions.



Top Individual Crop by Region

Best cropping variety across regions in 2023 has been variable as in the past.

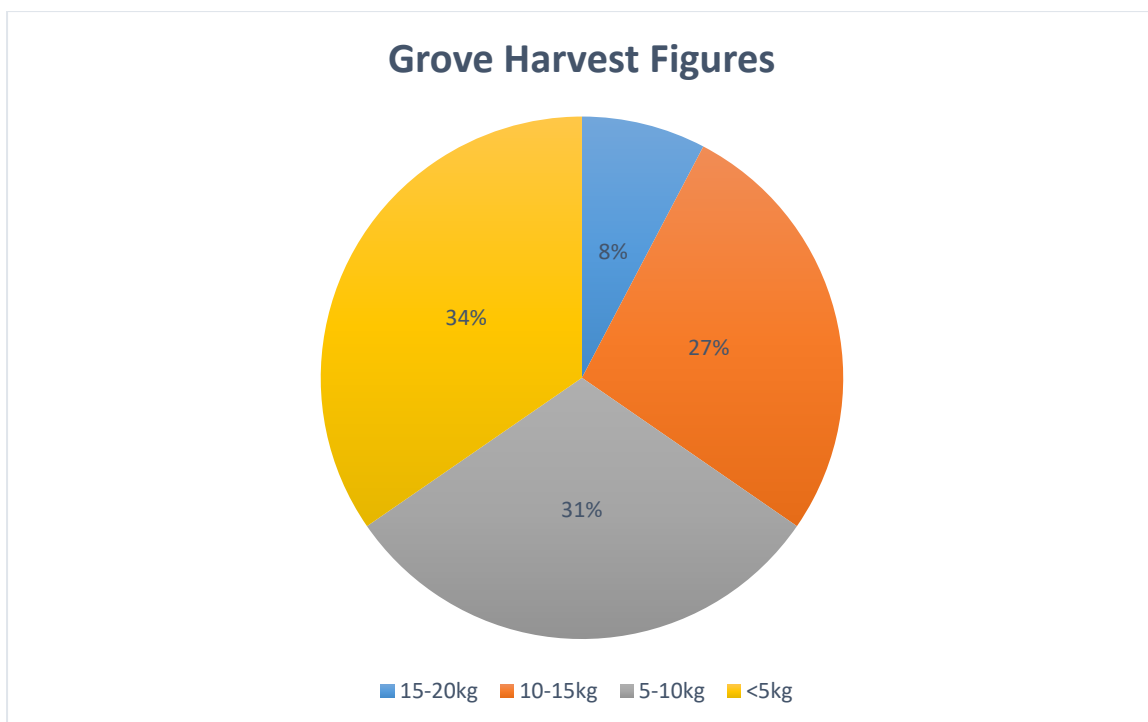
	2021		2022		2023	
Region	Variety	Kgs	Variety	Kgs	Variety	Kgs
Auckland	J5	12.35	J5	12.50	Frantoio	10.00
Bay of Plenty			Leccino	7.87		
Canterbury	Koroneiki	26.83	Barnea	18.45	Leccino	19.02
Central Otago	Leccino	6.00	Leccino	11.82	Frantoio	14.92
Hawkes Bay	Picual	35.56	Picual	33.37	Picual	31.71
Kapiti	Frantoio	27.00	Leccino	25.78	Leccino	21.10
Marlborough	Koroneiki	36.36	Koroneiki	13.45	Leccino	3.93
Nelson	Picual	35.23	Mission (California)	40.00	Picholene	23.62
Northland	Koroneiki	9.17	Frantoio	10.41	Frantoio	15.52
Waiheke	Koroneiki	14.93	J5	25.35	Picual	2.08
Waikato			Picual	3.39		
Wairarapa	Koroneiki	50.00	Picholene	31.18	Moraiolo	40.00

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

The harvest figures have fallen in comparison to last year, with over 66% of groves harvest producing less than 10kg per tree on average across their grove. Some 27 groves reported No Harvest down from 31 in 2022, however with such a disappointing response rate to the census, one can only assume that a number of those who did not respond also had no harvest.

The 2023 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 have their regimes, it is not appropriate for their data to be included separately in this report. Another four groves say they are organic but either not certified but use organic practices or do not spray.

Spray Programmes

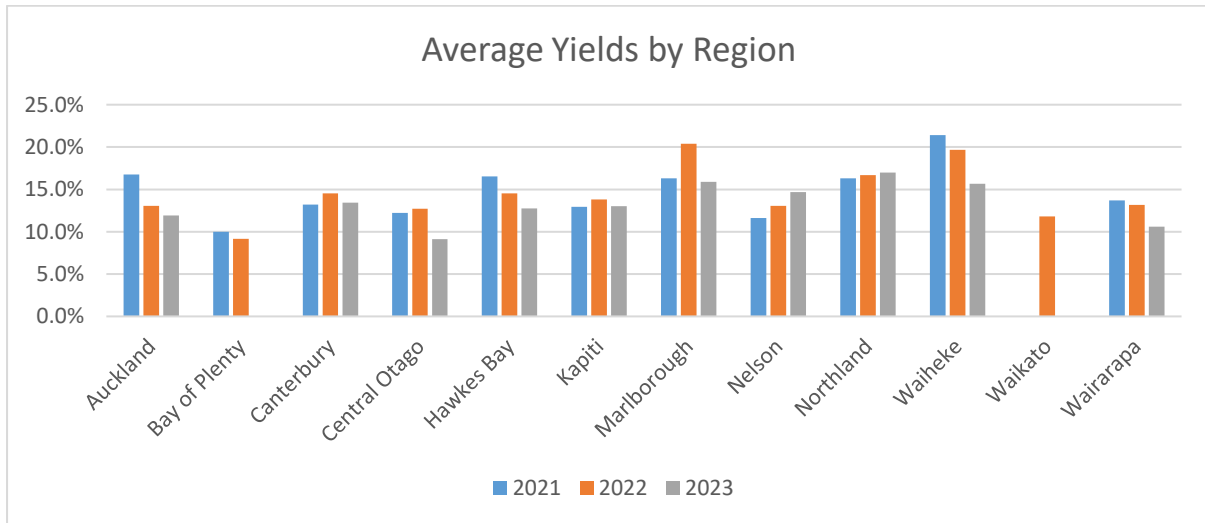
Approximately 24 groves (or 52% of groves that harvested) now have a spray programme. The main diseases that are sprayed for are Peacock Spot and Anthracnose; 23 groves spray to control Peacock Spot and 21 groves spray to control Anthracnose. As per the Focus Grove Project results Manzate or Mancozeb are the most widely effective sprays, used by 17 groves, and Protek is also used by 13 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. Those preferring to use an organic sprays use Copper, Biosea and Serenade.

Table Olive Production

There were 2.76 tonnes of table olives produced in 2023, compared to 5.86 tonnes produced in 2022. The largest production was from Auckland. The only other regions that produce reasonable quantities of table olives are Hawke's bay followed by Canterbury and Waiheke Island.

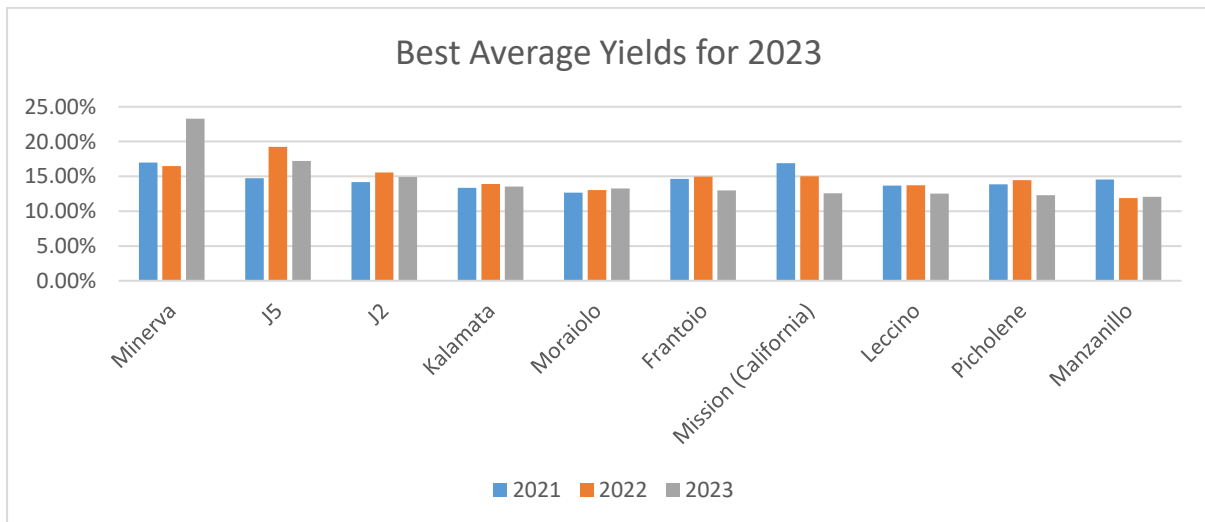
Average Oil Yield by Region

Oil yield percentage in 2023 was down in most regions compared to 2022 and 2021, except for Nelson which was up and Northland was slightly up. The national average was 12.27% compared with 14.6% in 2022.



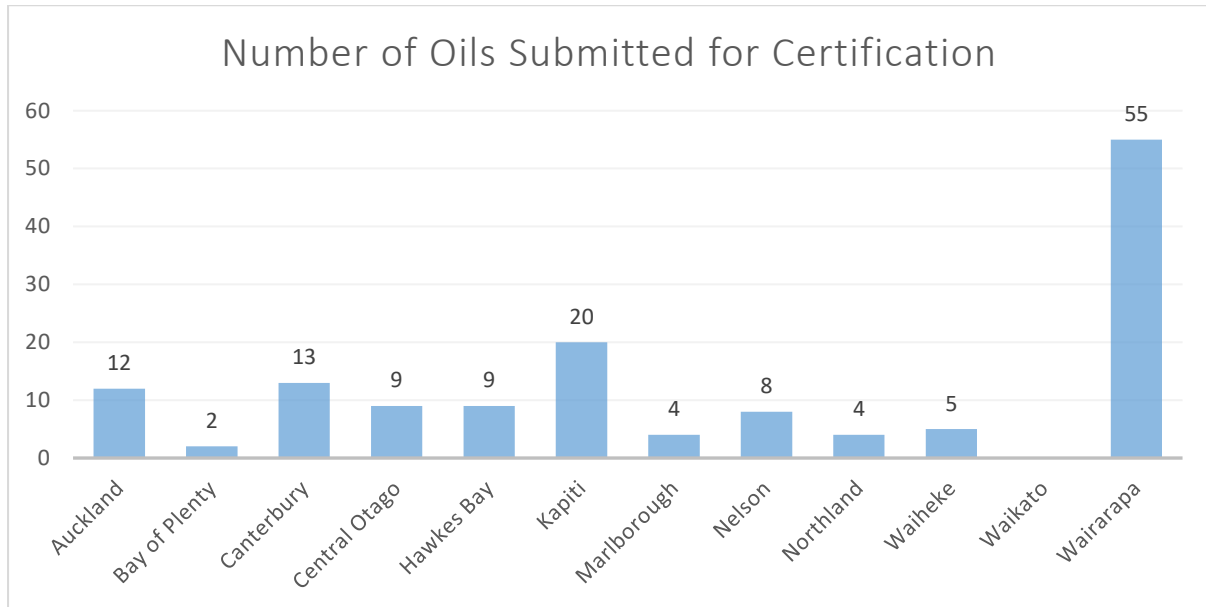
Best Average Yield by Variety

The average oil yields in 2023 were typically down compared to 2022, with the exception of a crop of Minerva. The highest average yield was Minerva at 23.3% followed by J5 at 17.2%, the reminding average yields were less than 15%.



Certification Summary Data

Some 142 oils were submitted for certification in 2023 (179 in 2022) with four 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 2023 were as follows.

2023 EVOO CERTIFICATION DATA SUMMARY

CHEMICAL ASSESSMENT	Lowest	Highest	Median	Average
Free Fatty Acid	0.07	0.76	0.19	0.22
Peroxide Value	1.00	11.20	5.50	5.54
Polyphenol Content	49	454	176	178
UV Absorption				
Delta K	< 0.01	< 0.01	< 0.01	< 0.01
232 Nm	0.95	2.01	1.58	1.56
268 Nm	0.04	0.17	0.11	0.11
SENSORY/ORGANOLEPTIC				
Fruity	0.00	6.00	5.00	5.15
Bitter	0.00	4.00	3.00	2.89
Pungent	0.00	3.80	3.00	2.93

The intensity spread based on Polyphenols for 2023 ranged from 49 to 454. The total percentages were 4% Intense, 61% Medium and 35% Mild. Marlborough had the highest average with 289 and Hawke's Bay the lowest average with 118.

Summary

The stand out region this season has been Nelson, with the highest average tree crop and the only region reported to increase their average yield. For the remainder for the country the lower average yields, volumes and polyphenol counts for the 2023 harvest has not come as a surprise and are reflective of the weather events.

It is rewarding to see the Focus Groves and other groves following the same practises have been less susceptible to any weather events and are reporting higher harvests yields than the regional averages. This supports the value of strong Grove Management Practises, involvement in Field Days and the Processing Practices Workshops, in particular.

It is noted that with low response rate it is hard to make accurate analysis.

Olives New Zealand thanks the growers who returned their 2023 harvest data.