

2020 Grove Census Harvest Data

Introduction

As always, Olives New Zealand is most appreciative of members who took the time to complete and return their 2020 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.

Covid-19 Level 4 lockdown came at a time when many groves were about to harvest. Fortunately olive harvesting and processing were seen as “essential services” so were able to be completed but this meant that strict processes had to be implemented. This highlighted that a number of groves were not registered for National Programmes or had not registered other groves that they harvest. Fortunately Councils were accommodating and allowed registration to enable harvesting to proceed. Only one grove reported that the lockdown affected their ability to harvest, due to trouble getting “pickers”. However the closure of markets and restaurants in particular did result in a substantial loss of sales.

The 2020 harvest year was very disappointing for the majority of groves. Harvest was 25% down on 2019, which was also a low year, and 50% down on 2018. A number of factors contributed to the poor performance – a promising flowering did not translate into a good fruit set, followed by drought conditions in many regions resulting in small fruit and/or fruit drop, and then slow ripening. These factors were then compounded by harvesting/harvester issues for a number of groves. However those groves following the Focus Grove¹ recommendations in relation to a regimented spray programme and fairly aggressive pruning programme substantially out-performed other groves in their region. Comments from the 2020 Grove Census forms on harvest issues have been collated in Appendix One.

Some 20% of groves reported “No Harvest” 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 oils submitted for Certification being classified as Extra Virgin Olive Oil. For the first time, the majority of oils were classified as Intense in the Polyphenols.

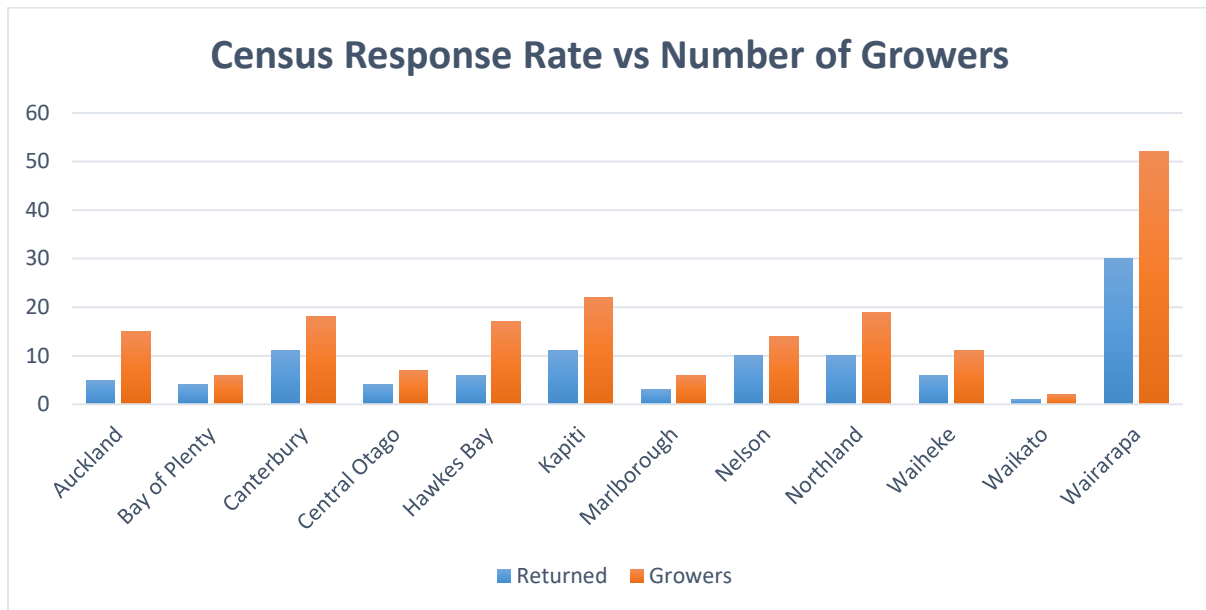
Some 69% of groves that harvested, harvested less than 10kg per tree which was the same as in 2019.

Responses by Region

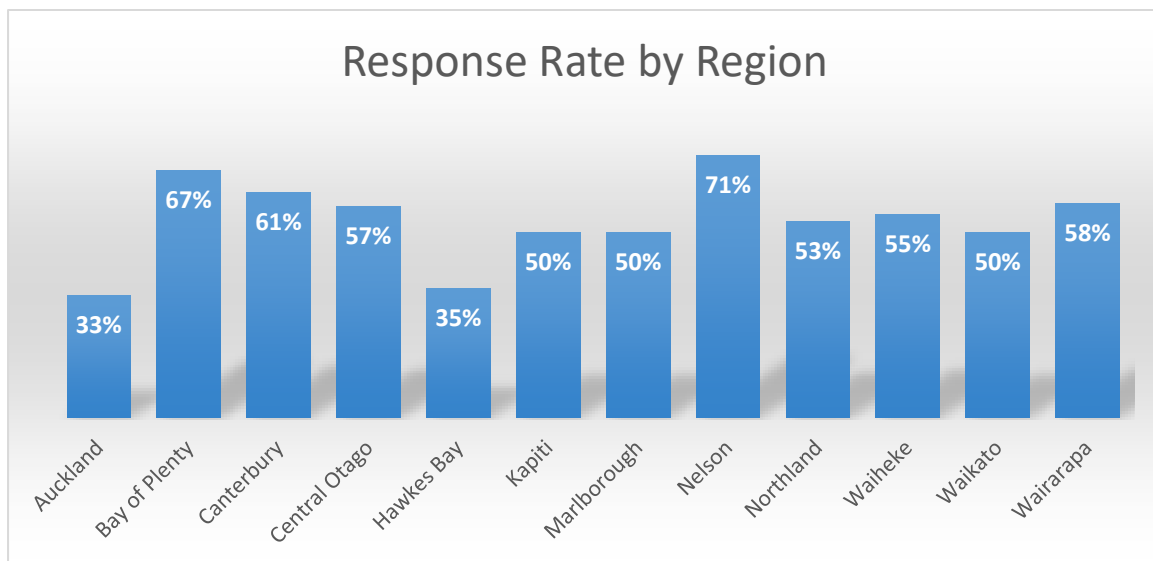
The 2020 harvest census had a response rate of 62% (101 out of 163 groves) similar to 2019. Only one of the four super groves (Hawke’s Bay) responded and reported No Harvest. The other super groves in Auckland, Hawke’s Bay and Nelson did not respond. The super groves range from 9,000 to 40,000 trees and total approximately 94,000 trees. Collectively the super groves represent almost 30% of the trees in the database and therefore could impact significantly on the reports produced. However on a positive note, this report represents the majority of Olives New Zealand members.

¹ Focus Grove reporting does not include the groves following an organic regime and are reported separately
Page 1 of 9

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

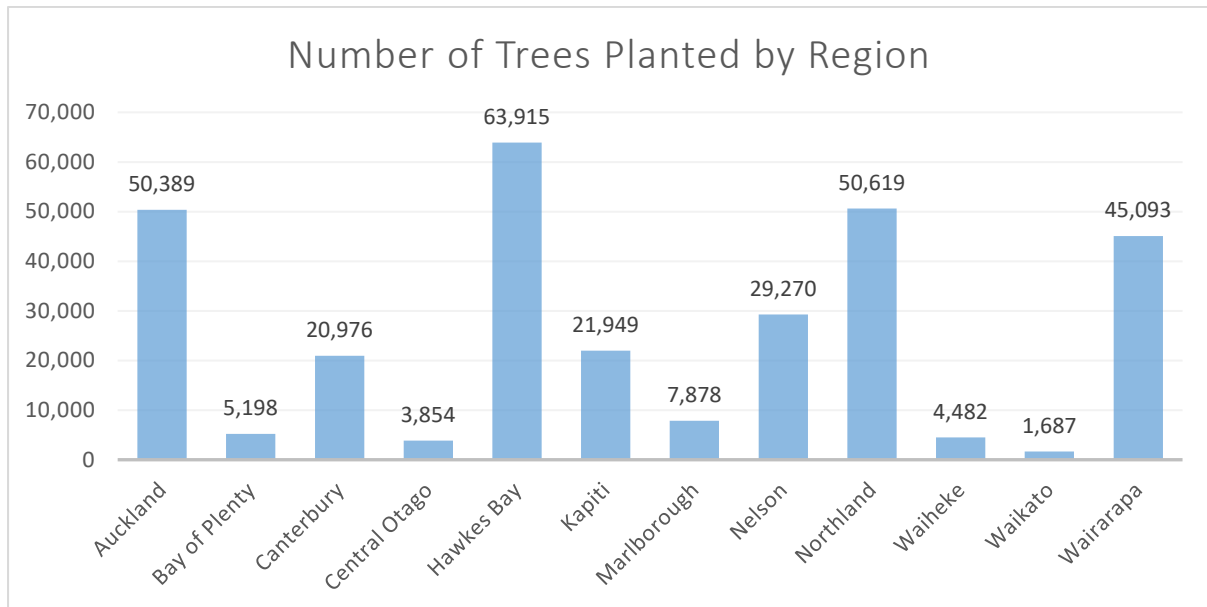


The response rate by region is shown on the following chart.



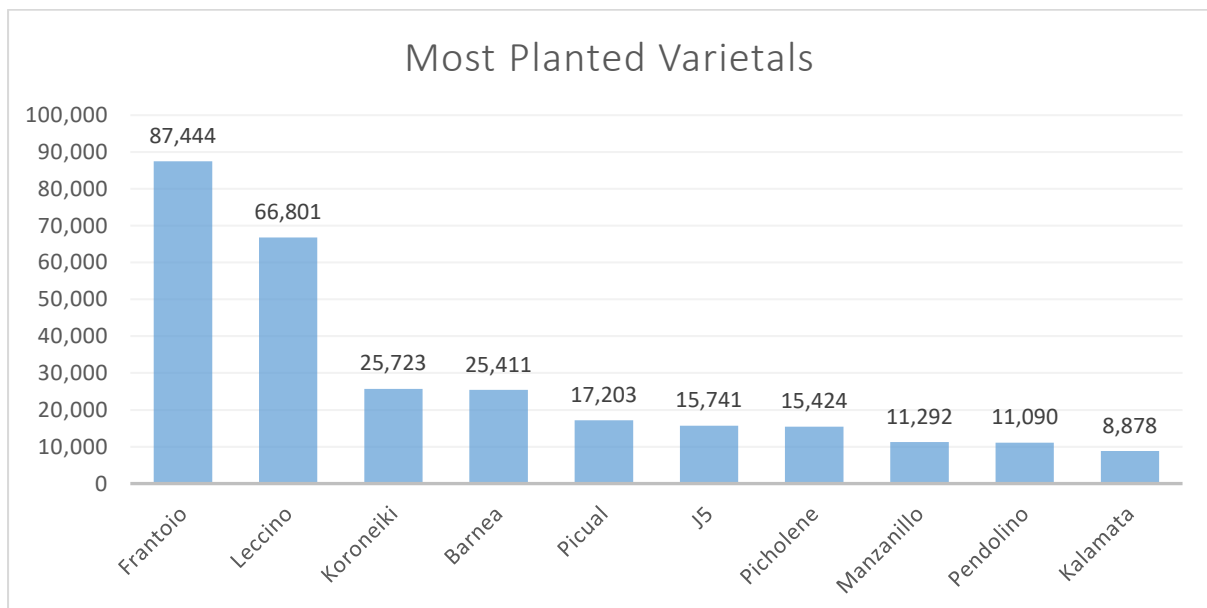
Trees Planted by Region

There is a total of approximately 306,000 trees recorded in the database. Hawke's Bay is the region with the largest number of trees, followed by Northland, Auckland and Wairarapa. There is now a much more even spread across these four regions. The following chart shows total trees recorded by region.



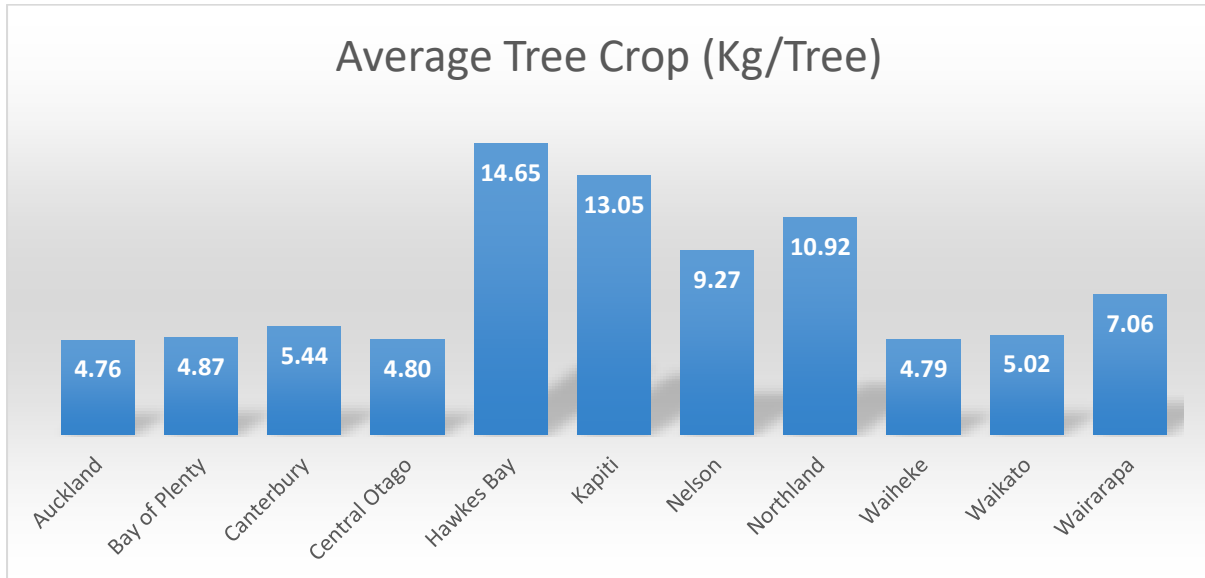
Most Planted Varietals

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



Crop by Region

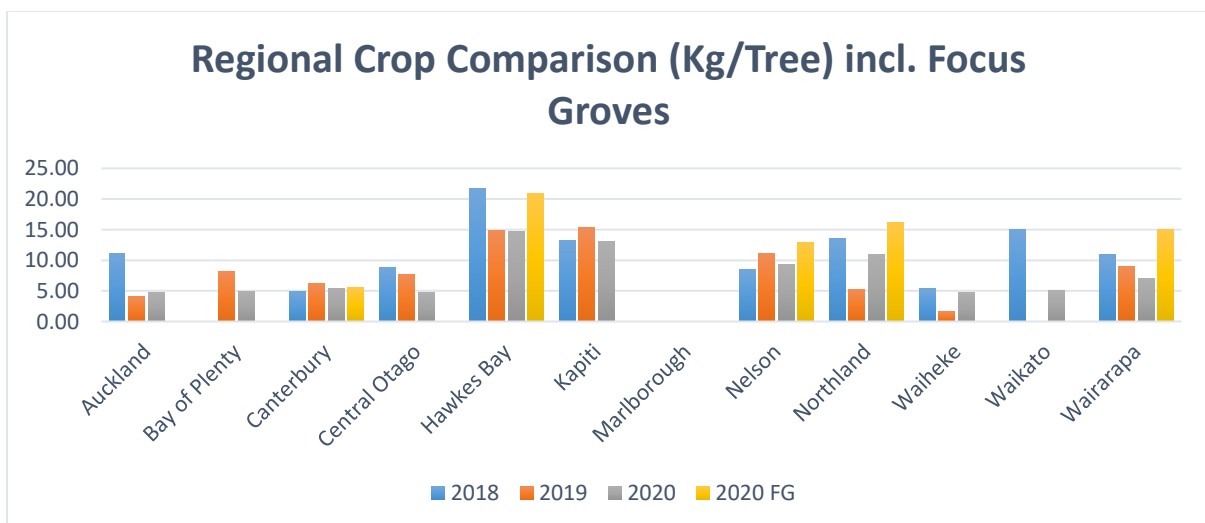
There was significant variation in the crops harvested in 2020 across the growing regions. The four top performing regions all include groves following the Focus Grove recommendations. Hawke's Bay shows a good average crop, closely followed by Kapiti. The national average is less than 10kg per tree.



In 2020 only three regions have produced an average greater than 10kg per tree – Hawke's Bay, Kapiti and Northland. In 2019 there were also only three regions that produced an average greater than 10kgs per tree - Hawke's Bay, Kapiti and Nelson.

Average Crop 2017 - 2020

The average crop harvested compared to previous years was variable. The Focus Grove blocks have typically out performed within their regions.



Note – In Marlborough only one grove provided harvest data figures and is not included.

Top Individual Crop by Region

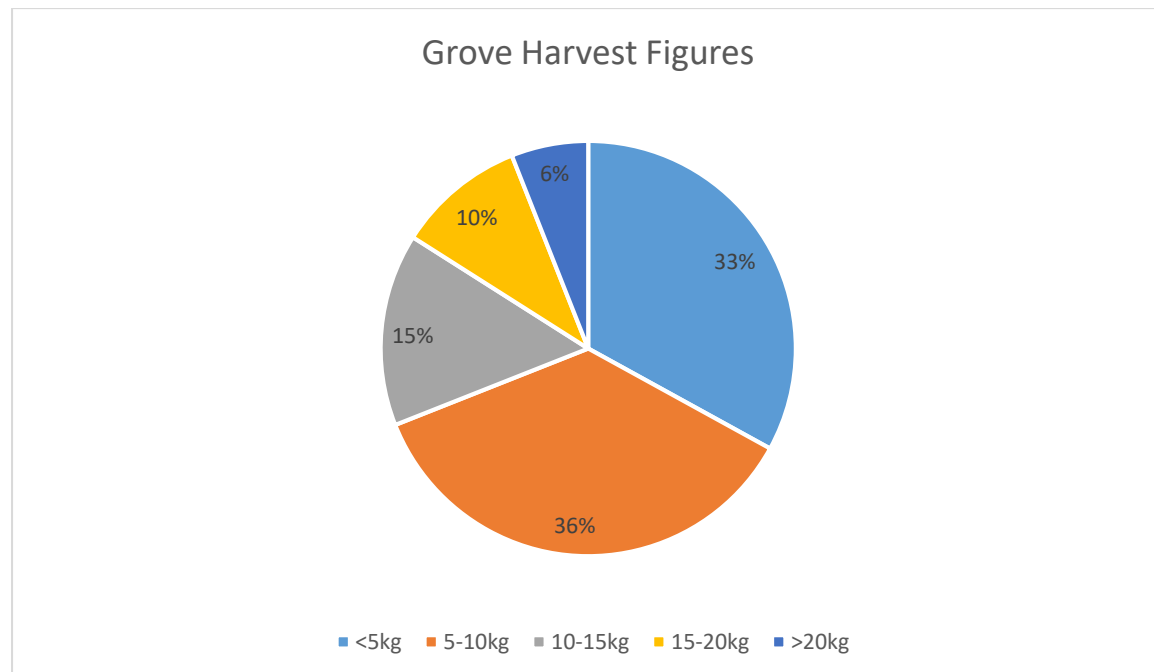
Best cropping variety across regions in 2020 has been varied. Overall the highest was Koroneiki in Wairarapa.

Region	2018 Kgs	Variety	2019 Kgs	Variety	2020 Kgs	Variety
Auckland	29.69	Nocellara	9.16	Leccino	6.17	J5
Bay of Plenty			20.20	Leccino	12.12	Leccino
Canterbury	29.75	Leccino	21.59	Picual	25.18	Picholene
Central						
Otago	10.63	Leccino	10.57	Leccino	8.00	Leccino
Hawkes Bay	37.54	Picual	32.46	Picual	29.33	Picual
Kapiti	50.50	Frantoio	38.15	Frantoio	26.08	Picholene
Nelson	48.28	Verdale	26.86	Picual	17.74	Minerva
Northland	38.31	J5	19.03	Frantoio	23.25	J5
Waiheke	13.89	Manzanillo	5.46	Pendolino	18.82	J5
Waikato	23.87	Picual			7.90	Frantoio
Wairarapa	31.82	Picholene	25.23	Picual	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

The majority of groves, 69%, that had a harvest, harvested less than 10kg pre tree on average across their grove. Some 20 groves reported No Harvest. The 2020 grove harvest figures are shown below.



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. As these groves are typically still working on their regimes, it is not appropriate for their data to be included separately in this report.

Spray Programmes

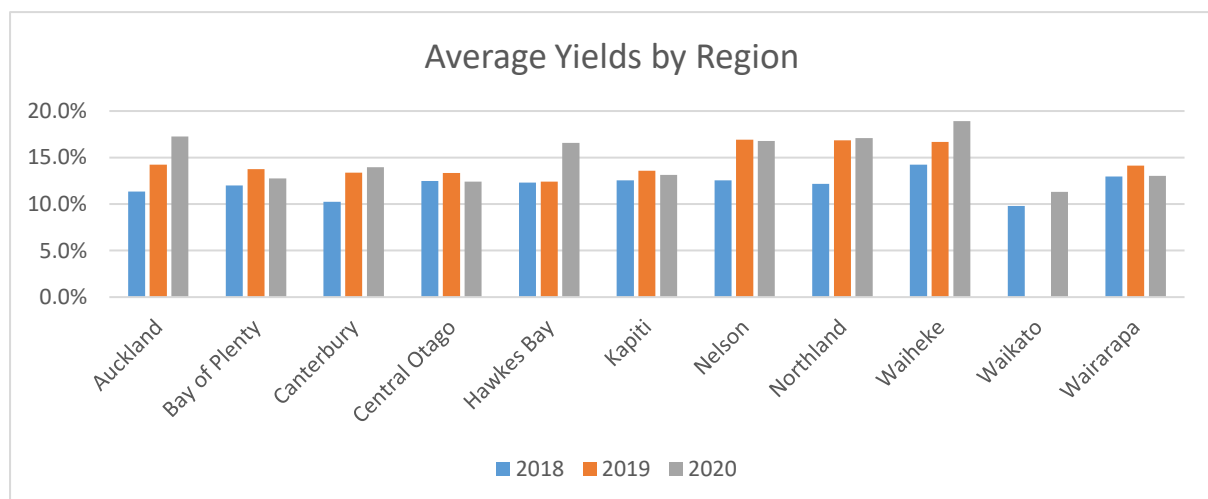
Approximately 40 or 40% of groves now have a spray programme. The main diseases that are sprayed for are Peacock Spot and Anthracnose; 38 groves spray to control Peacock Spot and 27 groves spray to control Anthracnose. As per the Focus Grove Project recommendations, Manzate is the most widely used spray, used by 32 groves, and Protek is also used by 11 groves.

Table Olive Production

There were 8.4 tonnes of table olives produced in 2020. The largest production was in Hawke's Bay. The only regions that do not produce table olives are Auckland, Marlborough, Nelson and Waikato.

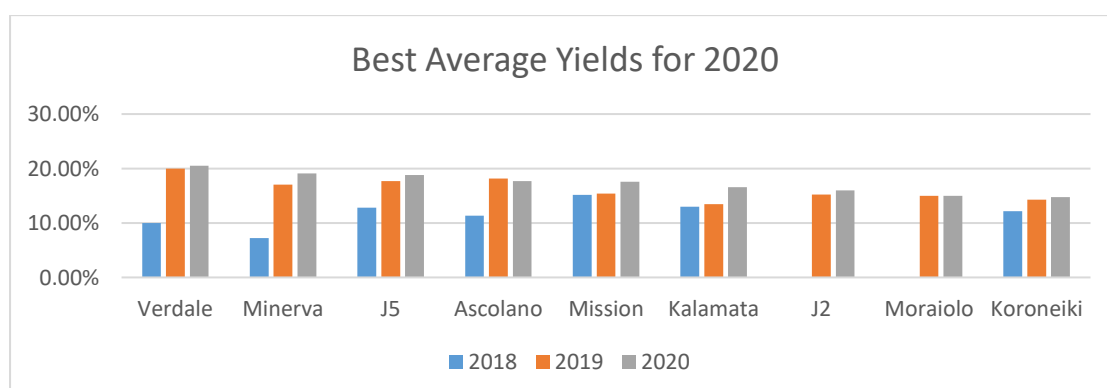
Average Oil Yield by Region

Oil yield percentage in 2020 was fairly similar in most regions to 2019, except for Auckland, Hawke's Bay and Waiheke Island which were up. The national average was 14.43% compared with 14.68% in 2019.



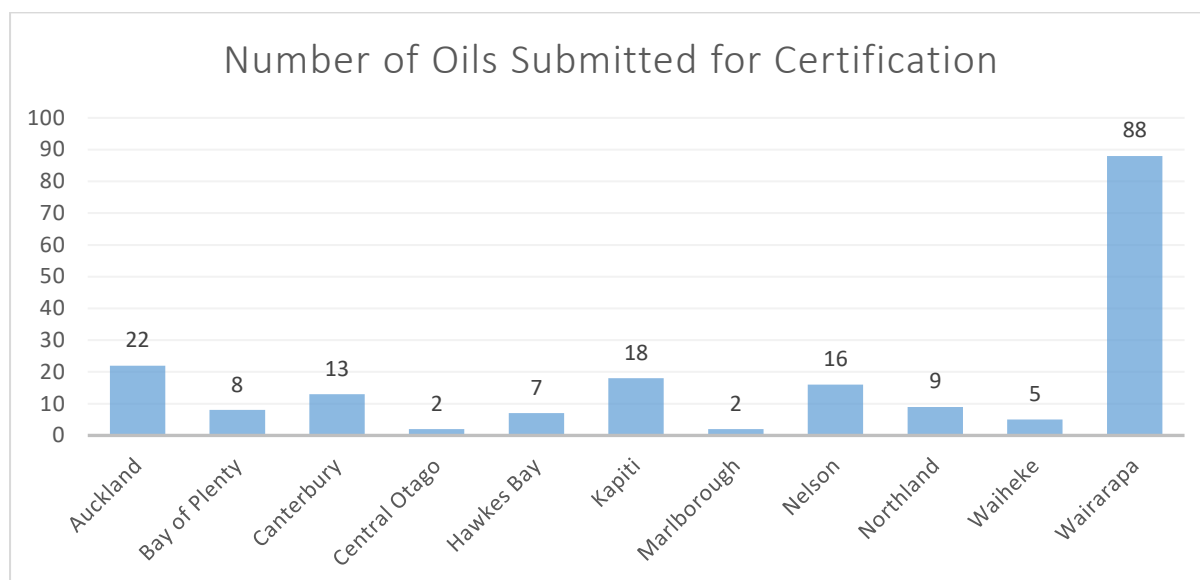
Best Average Yield by Variety

The average oil yields in 2020 were similar to 2019. The highest average yield was Verdale at 20% followed by Minerva at 19.1% and J5 at 18.8%.



Certification Summary Data

Some 190 oils were submitted for certification in 2020 with all meeting Certification standard. The following chart shows the number of oils submitted for certification by region.



The overall range and average for all certification measures in 2020 were as follows.

2020 EVOO CERTIFICATION DATA SUMMARY

CHEMICAL ASSESSMENT	Lowest	Highest	Median	Average
Free Fatty Acid	0.10	0.40	0.10	0.17
Peroxide Value	3.00	14.00	6.00	6.21
Polyphenol Content	109	719	316	321
UV Absorption				
Delta K	< 0.01	< 0.01	< 0.01	< 0.01
232 Nm	1.34	2.39	1.63	1.64
268 Nm	0.01	0.19	0.11	0.11
SENSORY/ORGANOLEPTIC				
Fruity	3.00	5.20	4.00	4.06
Bitter	1.90	4.00	3.10	3.08
Pungent	2.40	5.00	3.70	3.68

The intensity spread based on Polyphenols for 2020 was less than 5% Mild, 41% Medium and 54% Intense. In 2019 this was 23% Mild, 59% Medium and 18% Intense. Thus there was a substantial increase in Intense in 2020 with a corresponding substantial decrease in Mild.

Olives New Zealand thanks the growers who returned their 2020 harvest data.

Appendix One – Comments from Census Forms on Harvest

Good quality, poor yield.

Frantoio badly hit by birds, Tuscan fruit did not come off trees very well and fruit size very small as a result of the drought from Jan – March.

We did pick early with Frantoio and did 2 days and then left it for a week as we had trouble getting pickers during Level 3 lockdown. In that time we had 4 days of heavy frost which turned a lot of the olives brown, normally at that time of year we might get one frost but not four in a row. We then picked the Picual after the frosts and had to be selective. We would only have picked about 45% of the Frantoio and 20% of the Picual.

The fruit set was very poor due to late flowering, poor spring weather and infestation with black scale. This left many trees with insufficient crop to be worth harvesting. A small number of isolated heavy frosts caused extensive damage to the Frantoio, which then couldn't be harvested.

El Greco to be grafted as not performing. 70 Frantoio had very little fruit and J5 had no fruit.

Our Leccino did not bear enough fruit to harvest them.

Horrible season – drought led to small volumes, small fruit and slow ripening.

Crop small, lots of trees with very small olives. Lots of olives still unripe when harvested. Dry conditions/lack of rain most likely causes.

All trees had good flowering but only 60% bore fruit.

Lost a lot of crop this year to birds – more than we have ever experienced before, so a significant number of trees were not harvested.

Tonnes of fruit represents that harvested. This was by no means all of the trees (approx. 0.25 of grove total). However we suffered a severe frost prior to harvest and judged remainder of trees as unharvestable.

During harvest 600kg of Frantoio had to be dumped as it was contaminated with hydraulic fluid from the harvester.

Issues with shot berries and (lack of) water stress.

Only harvested half of our trees. I think due to very strong winds at flowering, drought (lack of water) and birds.

No harvest as the birds ate all our olives.

We are at the end of a 4 year staged coppice regime so our next years' results look exciting – even if the first year may be low.

Issue with olives not shaking off well – may have had something to do with drought. We kept up irrigation but this was minimal.

We decided not to harvest this year as olive crop poor and usual pickers not available.

Heavy pruning last year saw us harvest less than 50% of the grove.

Not a big crop and the birds ate most before they were even ripe.

We had a great flowering and fruit set but without irrigation the trees were unable to hold on to the developing fruit. Not an easy year, but that's farming.

Tonnage and oil yields down on the last two years. Causes may be small fruit – drought. Lack of fruit on Leccino/Minerva, Pendolino in an off year and flowering out of synch with Leccino. Something lacking in the soil? Weather good at flowering.

Some 70 trees removed due to retirement of a low performing block. Lower quantity due to poor fruit set owing to bad weather.

Less than 50% of trees harvested as the remainder did not have enough olives on them to harvest.

Only 53% of trees had enough fruit to harvest.

Even for one of our likely "good" years this year's crop was disappointing. The olives were smaller than usual and suffered badly during the season's drought and early frosts. While waiting for them to ripen we began to notice bird strike hence a decision to pick a little earlier than we would normally.