

MEMORANDUM on DOUBLE DUTCH DELIGHT ORCHARD

The orchard is registered with New Zealand Avocado as PPIN11100. The orchard is located at 158 Waitaha Rd in Welcome Bay, Tauranga in the Bay of Plenty, in New Zealand, and was established in August 2017.

The orchard name was creatively generated by Mrs. Truda de Jong and became Double Dutch Delight orchard. This name is intellectual property of the de Jong family and is non-transferable to the new owners but will remain the legal and fiscal part of the Double Dutch Delight partnership.

Brief historical description

The first 40 trees Hass on Bacon were planted in August 2017 on a 7x7m planting grid on the terraced down slope. In April 2018 a further 40 trees were interplanted changing the planting grid to 3.5x7m and becoming a typical high-density planting. In Spring 2019 both top slopes, left and right, were planted on further high-density grid but this time on 4x4m. This time Hass on Zutano rootstock was planted. The orchard comprises of almost 7% polliniser trees as Bacon, Zutano, and Reed.

Total number of trees is 192 and are considered mature.

Management

The orchard has been managed based on regenerative and permaculture principles. This means that respect for the soil, flora and fauna has been applied when implementing crop management strategies. Double Dutch Delight has worked with Nutri-Tech Solutions in Yandina-Queensland, Australia and Biologix in Blenheim to implement these strategies.

Pollination

The orchard enjoyed pollination services from hives which are property of Akuhata Kirikiri. Aku is our son in law and professional apiarist at Arataki Honey in Havelock North. In conjunction with our orchard practice, conducive to promoting and enhancing insect life and activity, the hives have provided very strong pollination activity which in turn yielded record honey production in season 22-23 and season 23-24. Beside honey bees as primary pollinators, the orchard hosts an abundance of insect life and we have observed 9 other species actively pollinating. Pollination in avocados needs to be well managed due to their design complexities that avocados display in their flowering patterns.

Beside promoting a habitat for insects to enhance pollination, plant nutrition needs to be in place to work in tandem to promote fruit set, with a special emphasis of Ca, B, Si (Calcium, Boron, and Silica). Due to the availability of abundant nectar in the foraging area of 2-3 km around the orchard, there is scope to build up to around 10 hives on the property if the new owners so desire, or offer it to a commercial beekeeper.

After the sale of 158 Waitaha Rd Aku's hives will return to the Hawkes Bay.

Soil analysis

Annual soil sampling is taken by the owner and send to Eurofins Auckland for analysis. The analysis is then discussed with Biologix in Blenheim with their Technical agronomist Daniel Schuurman and a nutritional recommendation is presented.

The ground-based fertilizer recommendation is based on the Albrecht soil amendment system which is tried and tested over the last 125 years in 74 countries and has proven to promote optimum soil fertility.

The foliar nutritional recommendation is tweaked towards specific nutritional requirements for avocados with a focus on Boron prior to flowering. Biologix supplies complete, biological and balanced nutritional products heeding to the chemical properties and associated interactions of major and minor elements. The Albrecht system and the Biologix range of products are conducive to our regenerative orchard practice and have demonstrated true sustainability.

Pruning

Pruning occurs twice a year. A winter pruning round occurs straight after picking. A summer pruning round can start late December to January/February to keep it uniform. Trees should be kept to a height of no taller than 4 meters. The pruning system applied is the typical “vase” system or architecture, to promote and enhance aeration, light infiltration and overview. A typical winter pruning round takes 45-60 minutes per tree. A typical summer pruning round takes 30-45 minutes per tree. The winter round is setting the tree up for spring flush and flowering. The summer round is aimed at keeping the tree open for light infiltration, airflow and remove wild shoots and low hanging branches and twigs.

Season 22-23 was the worst season on record for horticulture with two cyclones: in January, cyclone Hale, and February, cyclone Gabrielle. We estimate that we lost one quarter to a third of our crop load. Additionally, many new growth tips had snapped and branches were broken off, effectively reducing and eliminating the spring flush and flowering for the following season. As expected, season 23-24 has thus far seen a lower crop load and abundant growth as the trees have to sustain a lesser crop load. The abundant and sometimes excessive growth that has been encountered in summer pruning required hard pruning back. The upside of the weather extremes is that the trees have “stored and beefed up” in carbohydrate storage. This has the potential for heavy flowering and fruit set in Spring 2024 which will have a positive effect on harvestable fruit in the June-July 2025 window.

Pest monitoring

To be able to export, a grower must adhere to the AvoGreen requirements as outlined in the AvoGreen manual. The owner is an accredited AvoGreen monitor. Accreditation cost \$450+GST(2019). Alternatively, a contract AvoGreen monitor can be obtained through NZ Avocado or Just Avocados.

Spraying

Any spraying on the orchard is subject to Growsafe certification, regional and industry requirements. Additionally, a grower needs to maintain a spray diary and register any and every spray application on the NZ Avocado website spray diary to comply with export regulations.

The current owner is certified Growsafe operator. The certification can be obtained through Growsafe in Mount Maunganui and will cost \$450+GST(2018).

Due to the orchard practice and on-orchard pest monitoring, we have not used chemical insecticides or fungicides since the orchard's establishment. The orchard does have leaf roller but within acceptable range that did not warrant spraying. The other specific five avocado pest have not been observed or were present under the acceptable threshold. The proliferation of beneficial insect life, soil management, and pruning strategy has promoted healthy trees with a low pest pressure.

In spring we occasionally apply once or twice, based on the pest monitoring results, a biological mix of Diatomaceous Earth(DE), Elemental Sulphur(ES), B.A.M.(Beneficial Anaerobic Microbes), Full fat milk, Compost extract, Comfrey extract, Vermi-Liquid.

Harvest

Harvest usually takes place in the window between late June to early August. We have strip picked blocks or harvested the whole orchard at once. Liaising with The Avo Tree in Te Puna on picking volumes and pricing determines how many bins will be picked. Picking has been a family effort where the children pick the low hanging fruit while the adults focus on the remaining fruit. Volumes harvested in 2023 required 3 days of around 7 hours a day with a team of 3 adult pickers and 2 children of age 9 and over. The owner managed the logistics, crates and bins, and transport with a hired four-wheel drive New Holland tractor from Power Farming, now located in the Mount. The choice of a suitable tractor is crucial in navigating the slopes and terraces. Hireage goes by the hour. Tractor hireage in 2023 was \$667.00 incl GST. The Transport Tray attached to the tractor is owned by Double Dutch Delight orchard and is for sale for \$1500 plus GST. The Transport Tray plays an integral part of the logistics to get fruit off the slopes, enabling the transport of empty and full crates, people and equipment.

The top left slope uses the little trolley and/or full crates are walked out towards the driveway for pick up. The top right slope has a top and bottom track where crates are moved to, either by walking or using the little trolley. Both top and bottom have tractor access.

Packing

Due to the size and maturity of the orchard we decided in the early years to sell and pack our fruit through The Avo Tree in Te Puna. The Avo Tree deducts the NZ Avocado levy. A track record is provided below. However, the oversupply and subsequent downturn in the last two years made us decide to continue packing with The Avo Tree as it wasn't worth the effort of obtaining GLOBAL GAP export compliance through Just Avocados. As yield will continue to increase and export prices will improve over time, switching to Just Avocados should remain a consideration. The new NZ Avocado board was elected in 2023. This board is determined to bring change to the industry and its NZ avocado growers.

Production and returns

Harvest has traditionally taken place in June-July ahead of the mainpack season to ensure a good return and continue the crop cycle to avoid irregular bearing. Fruit maturity samples have been submitted to Verified Laboratory Services (VLS) in Te Puke to establish the percentage of Dry Matter. Avocados can be picked with a minimum DM of 23%, which increases weekly, given favourable weather conditions. Fruit maturity testing can also be facilitated by The Avo Tree or Just Avocados.

Sales:

2020: \$1951.74

2021: \$5651.78

2022: \$4460.58

2023: \$4544.61

Technical Crop Advisor

Although we have not packed fruit for export yet, Just Avocados in Katikati has extended the courtesy of working with its technical adviser. Her name is Kyra Fielden. Kyra is very experienced and knowledgeable, a great lady to work with. We elected to work with Just Avocados as the name suggest they are all about “just avocados” and are not a sideline fruit as you see with the large Bay of Plenty packhouses. Their entrepreneurial drive has secured new markets, the latest being Canada as the first and only NZ avocado packer and exporter, and secured steady returns for their growers.

Further potential in the orchard

1. The triangle and chicken run are our family orchard comprising of 35 different fruit such as citrus, apple, peach, pear, and persimmons. The fruit is shared by both families or given away as it is producing quite abundantly.
2. The bank down below. Fifty Tasmanian Blackwood trees have been planted in 2019. This is choice timber that could be milled for flooring or kitchen benches and furniture when it will reach maturity or a desired size has been reached. There is scope for another 200 trees to be planted. TB hold the soil, regenerate after felling from runners, are Nitrogen fixers, and can provide great firewood. The bank is heavily overgrown with mostly Taiwanese cherry, an invasive species. A heavy-duty shredder will destroy all unwanted vegetation.
3. The bank on the left bottom near our neighbour’s fence, and near the flax has a natural spring. A private deck with a fire pit near the spring could transform this jungle into a tranquil spot. Eels have been spotted in the high grass and could add an extra attractive feature to the private deck if a pond was constructed.
4. A private hut could be erected as an AirBNB retreat and could provide additional income.
5. The bank could be terraced and planted with e.g citrus, lemons or limes.
6. A track can be constructed diagonally extending the service lane to the big gate at the bottom of the block. This will enable access when logging or going to the private deck.
7. The Pohutukawa on the other side of the deer fence were planted by the owner but are on council reserve. They were planted to keep bank stability and create privacy.
8. The bank is teeming with native frogs, nesting quails and pheasants, in amongst other species.
9. Up the top adjacent to the fire hydrant, 13000L tank, another AirBNB or cottage could be established. Water is available, solar power is the preferred choice, and fitted with an eco-toilet the cottage might provide another opportunity for income.

10. Our Southern boundary line is planted in 2018 with 110 Feijoas. Providing GLOBAL GAP compliance is obtained a potential \$1500-2500 could be harvested and sold through Just Avocados or Vision Fresh in Maleme str.
11. Three water tanks are for irrigation that yet needs to be implemented. Water is collected from the two dwellings and driveway. We recommended setting up irrigation for the extensive vegetable gardens. Considering the trees are mature an went through one drought in 2020 and a very dry spell in early 2022. Their root systems are deep and draw from adequate soil moisture coming off and through the hill and have after 2020 not displayed any sign of water stress.

Orchard equipment as part of the sale

- 6 bins
- Approximately 20 crates
- Some fertilizer and foliar fertilizer.
- Trolley
- Large picking ladder
- 6 Avocado harvesting scissors
- Picking bags
- Gloves

Not part of the sale but are for sale:

1. Transport Tray @ \$1500 +GST
2. 100 L Spray unit plus batteries @ \$600 + GST
3. Wolff pruning pole @ \$250 + GST
4. Weed eater/brush cutter @ \$450 + GST

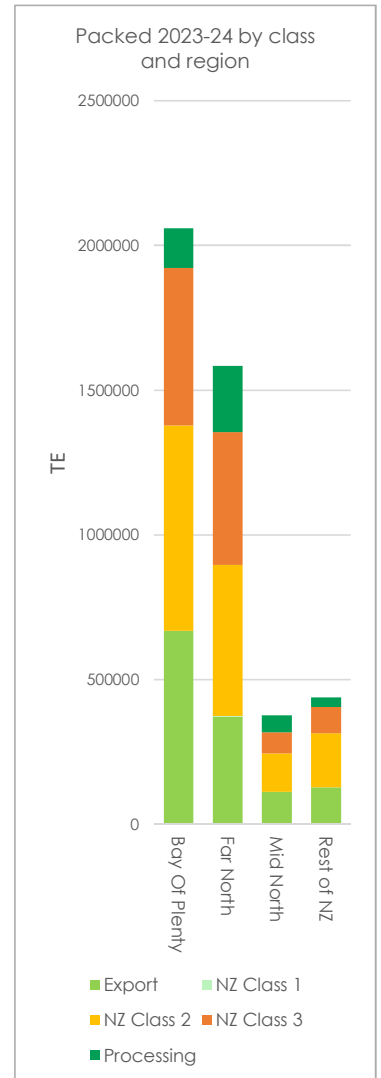
Contacts:

- Just avocados Katikati. <https://justavocados.co.nz>. Kyra Fielden 027 257 5028. kyra@justavocados.co.nz
- Power Farming. <https://www.powerfarming.co.nz/dealer/power-farming-bay-of-plenty> Cameron McNiven 07 543 0021/027 217 3652
- The Avo Tree. www.theavotree.co.nz . Thorley Robbins and Max Morton 027 318 3666
- GrowSafe. Steve Young 027 473 8503. younggunsteve@gmail.com
- AvoGreen monitoring. <https://industry.nzavocado.co.nz/about-us/compliance/avogreen/>
- Biologix. <https://biologix.co.nz> Daniel Schuurman 021 190 1051
- Verified Laboratory Services (VLS). <https://www.vls.net.nz>
- Nutri-Tech Solutions, Queensland-Australia. <https://nutri-tech.com.au>
- Vision Fresh/ Maleme Str. David Burrett. 021 882 803

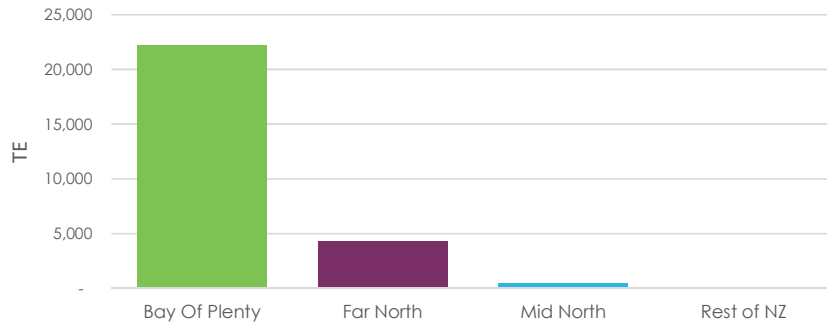
2023-24 Reporting period: May 2023, ISO Week 18 - May 2024, ISO Week 18

Packed this reporting week by class and region

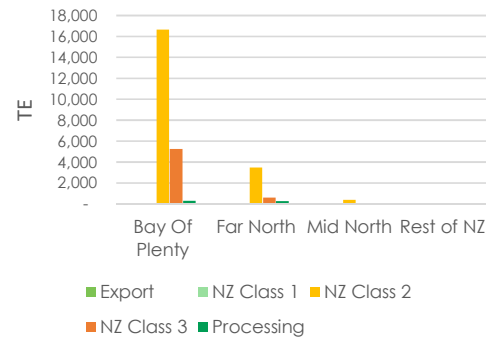
	Bay Of Plenty	Far North	Mid North	Rest of NZ	Total	% this reporting week 2023-24	% this reporting week 2022-23
Export	-	-	-	-	-	0%	0%
NZ Class 1	-	-	-	-	-	0.0%	30.0%
NZ Class 2	16,653	3,476	392	-	20,521	76%	55%
NZ Class 3	5,241	585	17	-	5,842	22%	14%
Processing	305	289	9	-	603	2%	1%
Total	22,199	4,349	417	-	26,966	100%	100%



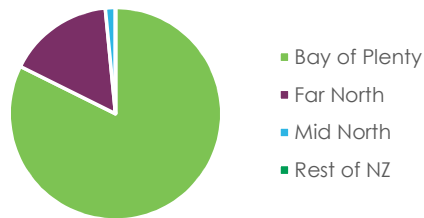
Total packed this reporting week by region



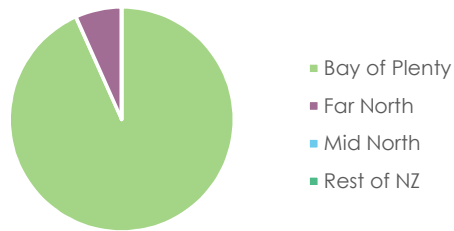
Packed this reporting week by class and region



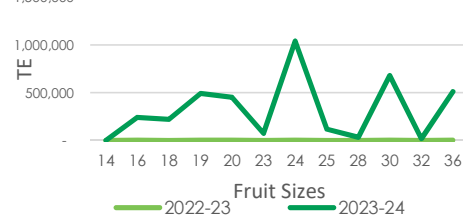
% packed by region this reporting week 2023-24



% packed by region this reporting week 2022-23



Fruit size profile YTD as of this reporting week



NZ Avocado Industry Dashboard

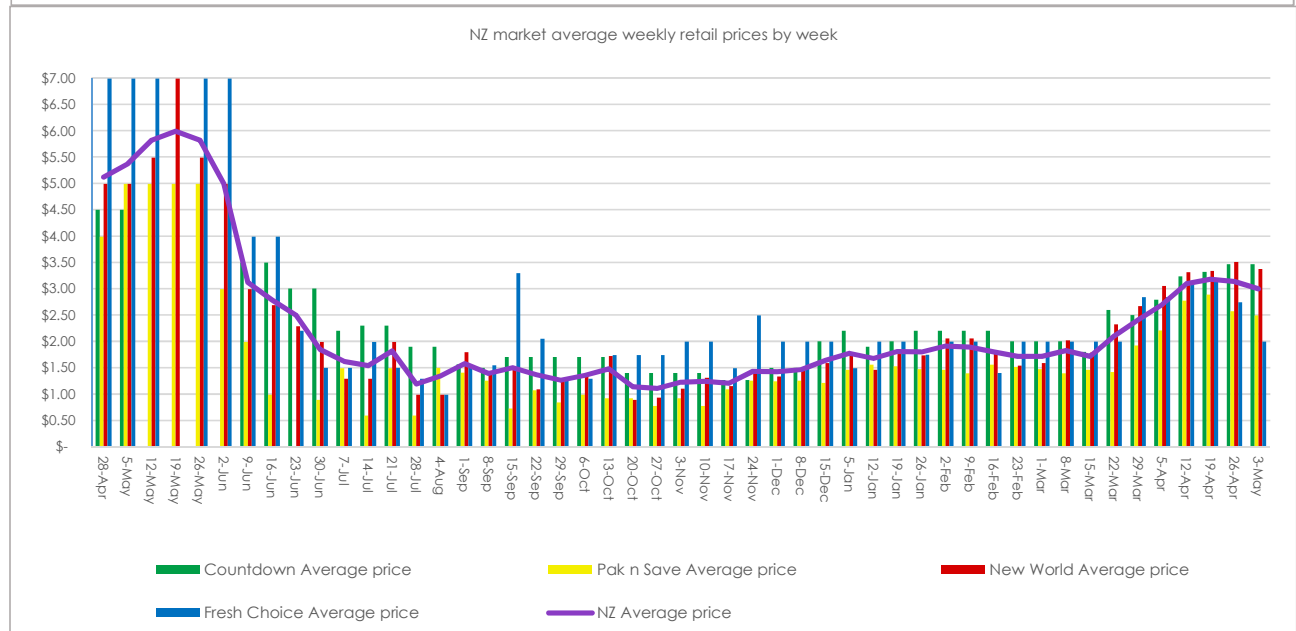
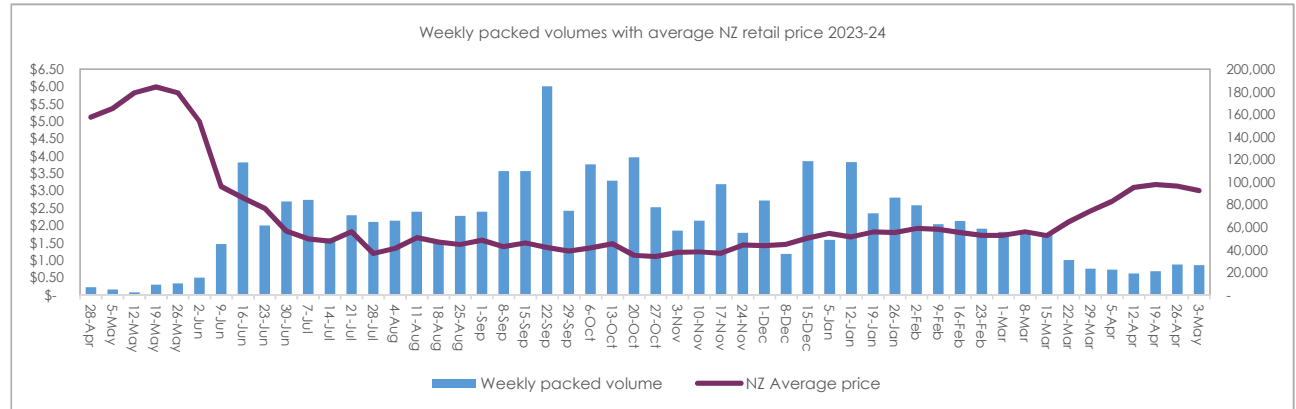
NZ Market retail price per piece 2023-24

Week	\$3.00
18	-4% Relative to average retail price last week
Season average	\$2.24
Highest weekly price this season	\$6.99
Lowest weekly price this season	\$0.59

NZ market retail monthly average price per piece

	2023-24	2022-23	% Difference from last season
May	\$5.75	\$2.35	144.47%
June	\$3.05	\$2.35	29.85%
July	\$1.54	\$2.44	-36.80%
August	\$1.49	\$2.15	-30.64%
September	\$1.42	\$1.82	-22.11%
October	\$1.27	\$1.54	-17.54%
November	\$1.28	\$1.60	-20.07%
December	\$1.51	\$2.30	-34.51%
January	\$1.76	\$2.48	-28.98%
February	\$1.87	\$2.83	-33.96%
March	\$1.95	\$3.82	-48.84%
April	\$3.03	\$4.57	-33.78%

Historical prices sourced from StatsNZ
2023 prices sourced online from supermarket websites



Disclaimer: NZ Avocado has taken all due care to ensure the accuracy of the data collected for this report. Contributors have been asked to participate in 'good faith' and provide accurate and complete data at all times. NZ Avocado takes no responsibility for the data that is entered. In no event shall NZ Avocado be liable for any special, direct, indirect, consequential, or incidental damages or any damages whatsoever, whether in an action of contract, negligence or other tort, arising out of or in connection with the use of the report or the contents of the report