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Prepared By: Robert Hall

Approved By: Levin Flake

Report Highlights:

New Zealand apple production in 2022/23 has been revised down sharply as a result of the damage caused by Cyclone Gabrielle, which hit the nation's largest apple growing and exporting region – Hawke's Bay/Gisborne – in February. This cyclone hit just as the harvest was starting, and thousands of hectares were either completely washed away by floods or covered in silt. Although efforts and initiatives are already underway in the region to try and recover trees and infrastructure, the impacts to the industry are anticipated to have multiyear effects. Both apple production and exports in 2022/23 are expected to fall to the lowest levels since 2009/2010.

Executive Summary:

New Zealand apple production in the 2022/23 marketing year (calendar year 2023) has been revised down sharply as a result of the damage caused by Cyclone Gabrielle, which hit the nation's largest apple growing and exporting region – Hawke's Bay/Gisborne – in February. This cyclone hit just as the harvest was starting, and thousands of hectares were either completely washed away by floods or covered in silt. Although efforts and initiatives are already underway in the region to try and recover trees and infrastructure, the impacts to the industry are already anticipated to have multiyear effects. FAS/Wellington's forecast for 2022/23 apple production is revised down to 453,000 metric tons (MT), which if realized would be the lowest level since 2009/2010.

Before the cyclone hit, there had been optimism in the sector due to improved labor availability, especially after two challenging seasons where the COVID-19 pandemic severely restricted labor resources for the industry. Due to the labor shortages, some trees remained unpicked during the past two seasons, with significant impacts to production.

Although the key Hawke's Bay/Gisborne region was dramatically impacted by the cyclone, in other growing regions such as Nelson in the South Island, a near-optimal 2023 year has been experienced. As mentioned, this includes the returning of overseas labor post COVID-19 restrictions, ideal weather leading into harvest, as well as investments implemented over the last few seasons to automate a large number of packhouse roles.

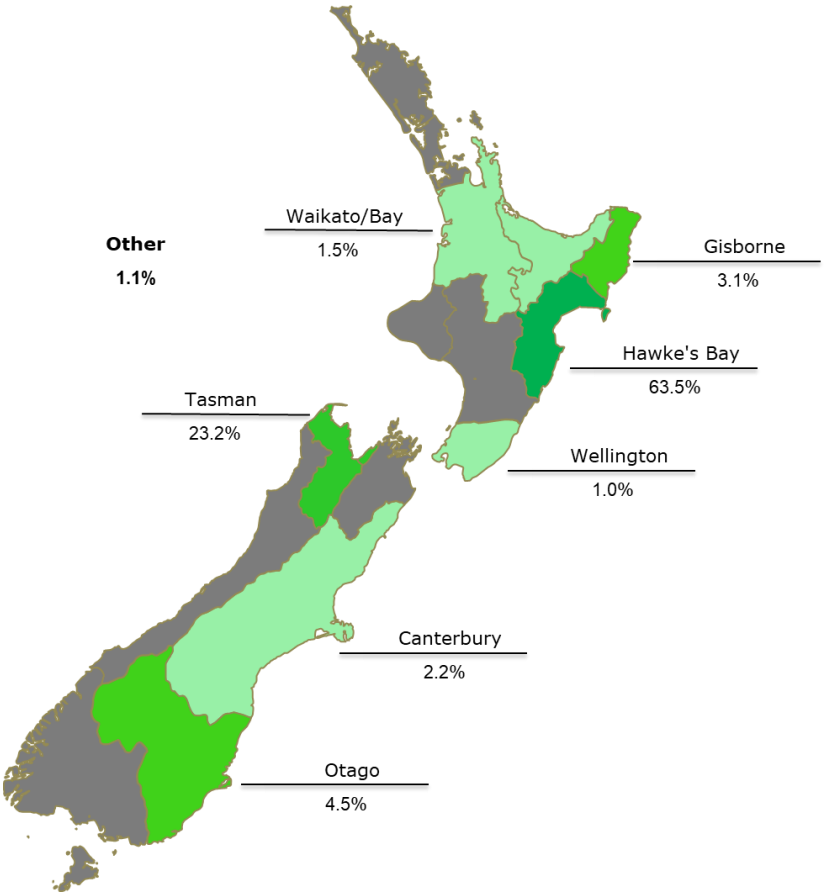
As a result of the wider impacts to the Hawke's Bay region's orchards, FAS/Wellington is forecasting a significant decrease in New Zealand apple exports to global markets, with exports forecast at 270,000 MT, almost 21 percent less than 2021/2022 exports.

Note: The Marketing Year (MY) is the same as the calendar year (CY), January 1 to December 31. For the purpose of this report always refer to MY unless otherwise stated. Growing Year (GY) will refer to July 1to the following June 30. For foreign exchange rate between New Zealand Dollar and United States Dollar, the rate used in this report is NZ$ 1.00 = US$ 0.62.

Background

New Zealand is one of the largest global apple exporting countries, with climate and soils that make it well suited for growing apples and pears. Key growing regions such as Hawke's Bay, Nelson, and Central Otago experience necessary conditions for growing apples, such as sufficient winter chilling, warm springs, long sunshine hours in summer, and dry growing areas. These areas also have reliable water resources to irrigate orchards, and as a result almost all commercial orchards rely on irrigation. New Zealand also has well established ports close to its apple and pear regions. The harvest season starts in January and finishes in June, with peak harvest for apples from March to May. Displayed in Figure 1 is the the distribution of the country's apple and pear growing areas, where the majority of production is located in the Hawke's Bay (nearly two-thirds of trees).

Figure 1: New Zealand Apple and Pear Growing Regions



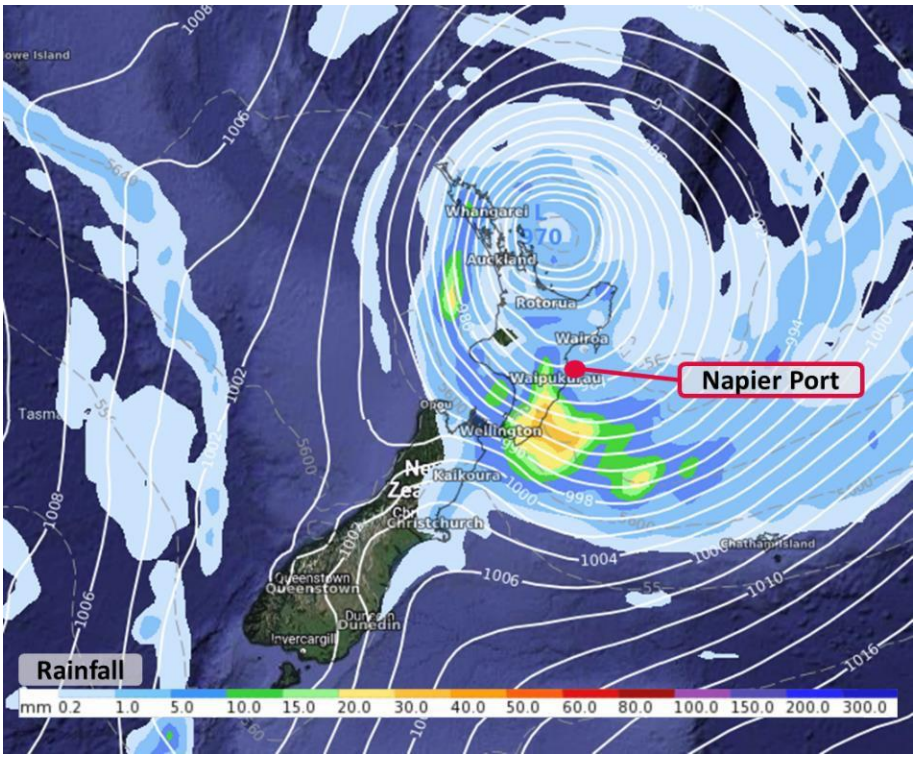
Source: Statistics NZ

Apples

Planted and Harvested Areas

Apple planted area in 2022/23 is expected to have remained steady, however following the impacts of Cyclone Gabrielle in early February (Figure 2), the forecast for New Zealand harvested area is sharply reduced from 10,300 hectares last year to 8,900 hectares this year. Already this has been regarded as the deadliest weather event to hit the country since 1968, and the Hawke's Bay and Gisborne were the hardest hit regions. Intense winds and rain caused huge land slides and flooding, which for the apple industry in particular resulted in wide-spread destruction of orchards and infrastructure, in addition to immense buildup of silt in vast areas (see Image 1).

Figure 2: Cyclone Gabrielle Rain Map Tuesday Feb 14th, 2023, at 10:00am



Source: Weather Watch NZ

Image 1: Hawke's Bay Apple Orchard Damaged by Cyclone Gabrielle

Source: New Zealand Herald

Apples are predicted by the industry to be the hardest hit export crop in 2023. As mentioned, Hawke's Bay and Gisborne growers account for about two-thirds of New Zealand production, and 58 percent of last year's apple exports departed from Napier Port. In the weeks following the storm, damage to the region's deciduous fruit trees were estimated in reports at close to 4,000 hectares being impacted (around half of total area in region). Of these areas affected, the peak apple industry body classified them into three different categories, which rank the level of damage (Table 1). For categories one and two the damage has been so severe there is no production anticipated from these areas due to either complete damage or silting that will inevitably cause tree death. Category three areas are still able to be harvested, with reduced production or quality issues as a result of the storm impacts.

According to these industry estimates, around a quarter of the regions trees would have been destroyed, with another nearly quarter having yields severely impacted this year. There were, however, large areas of orchards and infrastructure that remained undamaged following the storm, and in these areas, harvest has continued as planned.

Table 1: Orchards in Hawke's Bay Affected by Cyclone Gabrielle

Hawke's Bay Damage Assessment	Description	Estimated Area (Ha)
Category One	Completely destroyed, the trees and infrastructure were gone, and will require complete redevelopment.	**840**
Category Two	Completely submerged and have deep silt through them which will result in significant tree death.	**1,260**
Category Three	Orchards will have a reduced crop percentage, they have had water through them, the trees are waterlogged but some of the fruit is salvageable.	**1,800**

Source: New Zealand Apples and Pears (Chairperson Richard Punter to Radio New Zealand)

For growers in areas significantly affected by Cyclone Gabrielle, the New Zealand government has made available a combined total of NZ$74 million (US$46 million). This funding was announced to be made available for urgent repair work, including fencing and clearing silt to save trees and vines.

The cost of the cyclone damage has been estimated at over NZ$10 billion (US$6.2 billion), announced by the Government's Finance Minister – Grant Robertson. Already over 40,000 insurance claims have been made for damages related to the storm, worth a collective NZ$890 million (US$552 million) so far according to the Insurance Council of New Zealand (ICNZ). Due to the massive destruction of trees and other infrastructure, there will no doubt be a large impact on apple production for many years.

Production

FAS/Wellington has lowered the production forecast for 2022/23 to 453,000 MT, down 12 percent compared to 2021/22 and the lowest level since 2009/10. Prior to the cyclone, the season was looking very promising compared to previous seasons with the returning of labor to orchards and pack houses post-pandemic. In addition, due to the fact that orchards replanted in recent years were coming into full production, there was an anticipation that overall production could have returned to levels reached before the pandemic.

Primary factors affecting the 2022/23 national production are outlined as follows:

--Cyclone Gabrielle

As mentioned in previous section, the impacts of this storm have been immense for the New Zealand apple crop in Hawke's Bay and Gisborne. With an estimated 2,100 ha of orchards being either wiped out or completely silted in, and an anticipation of eventual tree death in the silted areas unless cleared. Another 1,800 ha is estimated by industry to have been damaged but salvageable, although still facing significant yield loss.

--Seasonal Labor

Labor availability has always had a substantial impact on the national horticultural production. The 2023 harvest season saw a full return of labor under the Recognized Seasonal Employer (RSE) scheme. These workers are predominantly from Pacific Island nations, and this labor pool has been immensely constrained in the last few years as a result of COVID-19 border restrictions. In September 2022, the cap or admin limit was lifted for the 2022/2023 season to 19,000 people, from 16,000 previously. As mentioned, increased harvest labor availability created a great deal of optimism regarding this year's apple crop before the cyclone hit.

--Innovation

Over the last few years many orchards and packhouses have advanced and put in large investments into automation for the purpose of managing labor more effectively. Other innovations are also aimed at improving decision making and fruit quality management. Packhouses are investing in camera technology for grading and robotics for packing, stacking, and palletizing. In recent years growers have made large investments in platform technology in an effort to make the orchard jobs easier and more efficient.

-- La Niña Weather Pattern

As forecasted by the National Institute of Water and Atmospheric Research (NIWA), a typical La Niña growing season occurred. This was characterized by contrasting weather extremes across New Zealand. It was exceptionally wet for the North Island and Auckland, Northland, Bay of Plenty, and Hawke's Bay each had their wettest summer on record. Meanwhile, in the South Island very dry to extremely dry conditions occurred in Otago, South Canterbury, and Tasman regions, which for apple growers proved

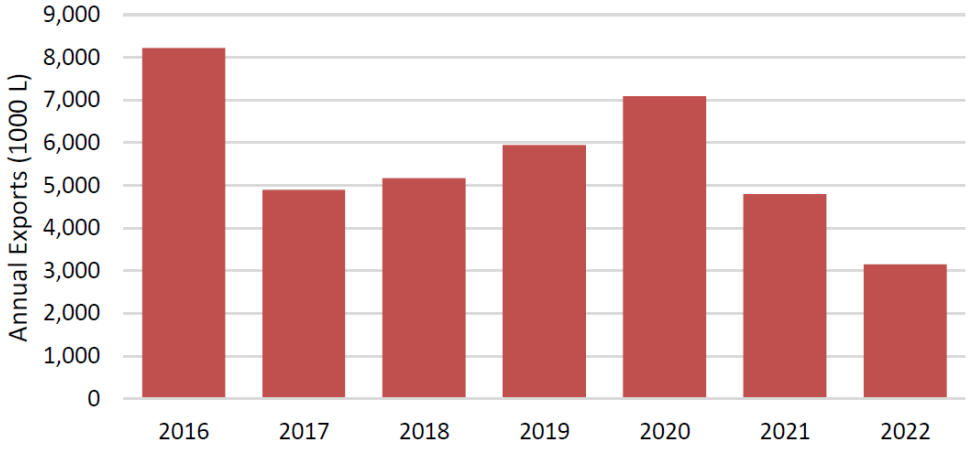
favorable as with most orchards utilizing irrigation, more dry and sunshine hours create ideal growing conditions. As a result, although a relatively small proportion of total apple production (compared to Hawke's Bay), production in South Island areas such as Nelson are expected to be greatly improved this year.

Consumption

FAS/Wellington has revised domestic consumption down slightly for 2022/23 to 183,300 MT as a result of the sharply lower expected crop. However, apple volumes for processing are still expected to be higher than last year as a result of increased harvest labor. Last year, the lack of harvest labor meant that the focus was on picking export-quality fruit, and many apples that would have gone to processing were left on the trees. This large reduced volume going for processing is illustrated by the sharp decline in New Zealand's apple juice exports to the lowest juice export volumes seen in decades (Figure 3). This year, with ample harvest labor combined with lower harvested area due to the cyclone damage, it is expected that more fruit for processing will be picked.

All apple processing for juice is done in the North Island, with exports primarily out of Napier (70 percent), followed by Tauranga (27 percent) and Auckland. Typically, the fresh consumption of apples domestically is 74,000 MT, with the remaining volumes directed into processing. As a result of the impacts caused in Hawke's Bay and Gisborne, there are expectations of a small decrease in domestic consumption as prices are anticipated to increase in supermarkets due to the reduced apple volumes this year.

Figure 3: New Zealand Apple Juice Exports



Source: Trade Data Monitor LLC

Trade

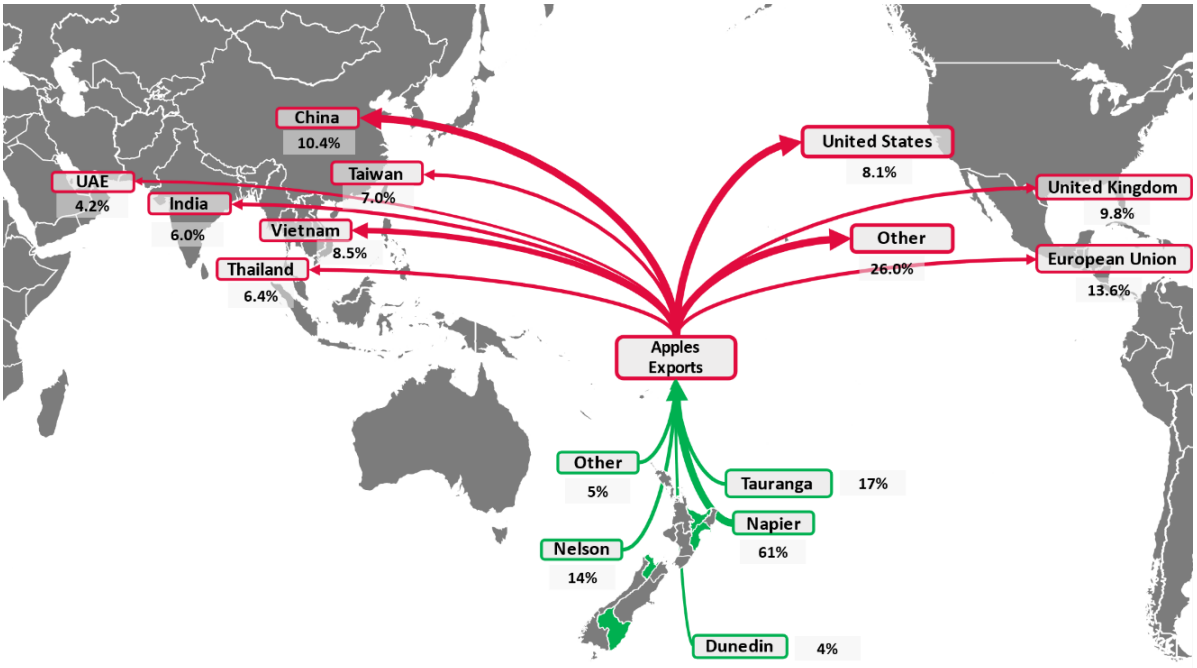
Exports

FAS/Wellington has revised down the export forecast for 2022/23 to 270,000 MT, down 21 percent from 2021/22 and the lowest level in over a decade.

In the first quarter (Q1) of the 2022/23 exports are currently tracking 10 percent behind the same time last year, although historically only 15 percent of total apple exports take place over Q1. The largest period for New Zealand Apple exports takes place over April, May, and June (63 percent).

Despite the damage to Hawke's Bay, the Napier port has been able to continue operations and shipping to global markets. In March, the first month after the cyclone hit, exports were down 17 percent compared to the previous March. Napier Port typically ships 61 percent of total volume of New Zealand apples to overseas markets, followed by Tauranga at 17 percent. South Island ports of Nelson and Dunedin typically account for 14 and four percent of annual exports, respectively (Figure 4). However, with good apple crops in these regions this year, combined with reduced expected volumes out of the North Island, the South Island is likely to account for a larger proportion of total exports in 2022/23.

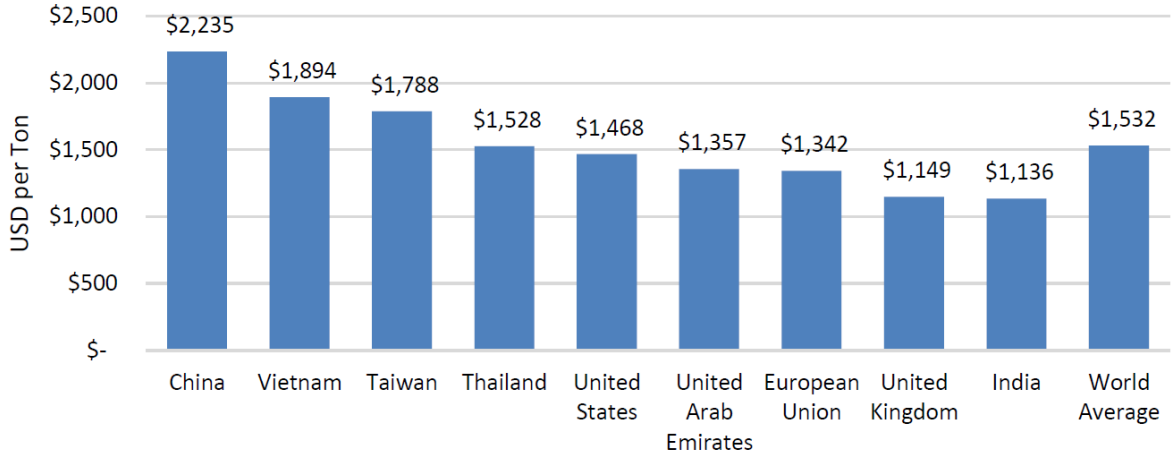
Figure 4: New Zealand Apples Exports by Volume Five Year Average



Source: Trade Data Monitor LLC

With a forecasted drop in New Zealand's apple exports, it is anticipated that more premium markets will be prioritized. This will be to ensure maximum export revenue to help offset the production losses that occurred this season. Asian markets such as China, Vietnam, Taiwan, and Thailand typically import the highest value apples from New Zealand (Figure 5), while Europe and India import the lowest value apples.

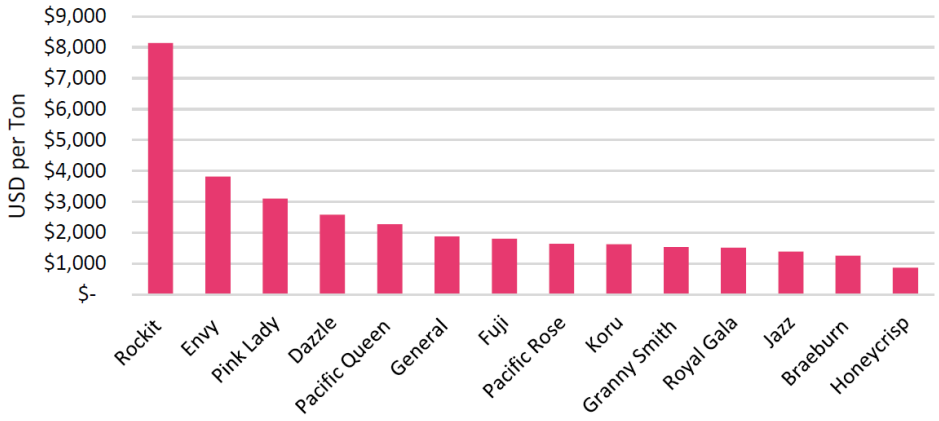
Figure 5: Five Year Average Unit Price for New Zealand Apple Exports



Source: Trade Data Monitor LLC

In recent years, there has been a strategy of replacing older and lower-value apple varieties such as Braeburn with higher-yielding apples, especially varieties sought for by Asian markets. This shift is expected to be accelerated as producers replace destroyed blocks in the Hawke's Bay. The varieties that are replanted are expected to be that of a higher value per unit (see Figure 6), especially as the industry is still recovering from the challenges of the current season and previous labor shortages as a result of the pandemic. Therefore, national hectares may see a substantial decrease in the older varieties such as Royal Gala and Braeburn apples, and an increase towards higher price varieties like Rockit, Envy, Dazzle and Pink Lady.

Figure 6: 2022 New Zealand Apple Export by Unit Price



Source: Trade Data Monitor LLC

Imports

New Zealand imports very few apples, which are sourced predominantly from the United States. These imports are always for the purpose of supplying consumers in the months leading up to harvest (November to December), as the domestic supply is decreased. FAS/Wellington forecasts imports to rise to 300 MT, as with the decreased domestic crop more apples will be sourced for New Zealand consumers. Imports in 2022 fell to only 46 MT.

Table 2: New Zealand Fresh Apples Production, Supply and Demand

Apples, Fresh	2020/2021		2021/2022		2022/2023	
Market Year Begins	Jan 2021		Jan 2022		Jan 2023	
New Zealand	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HA)	11000	11000	11000	11000	11000	11000
Area Harvested (HA)	10200	10200	10300	10300	10300	8900
Commercial Production (MT)	535000	535000	510000	510000	570000	450000
Non-Comm. Production (MT)	3000	3000	3000	3000	3000	3000
Production (MT)	538000	538000	513000	513000	573000	453000
Imports (MT)	400	351	300	46	300	300
Total Supply (MT)	538400	538351	513300	513046	573300	453300
Domestic Consumption (MT)	180600	182551	173300	172246	188300	183300
Exports (MT)	357800	355800	340000	340800	385000	270000
Total Distribution (MT)	538400	538351	513300	513046	573300	453300
(HA) ,(1000 TREES) ,(MT)						

Pears

Production

FAS/Wellington forecasts New Zealand's pear production at 10,000 MT in 2022/23, down from the previous estimate and also down from 2021/22. Similar to the situation with apples, the effects of Cyclone Gabrielle in the Hawke's Bay and Gisborne region are anticipated to have an impact on harvested area and quality. However, favorable growing season conditions in the Nelson and Otago regions are expected to help partially offset this, especially as (unlike apples) pear production is somewhat less concentrated in the Hawke's Bay region.

Consumption

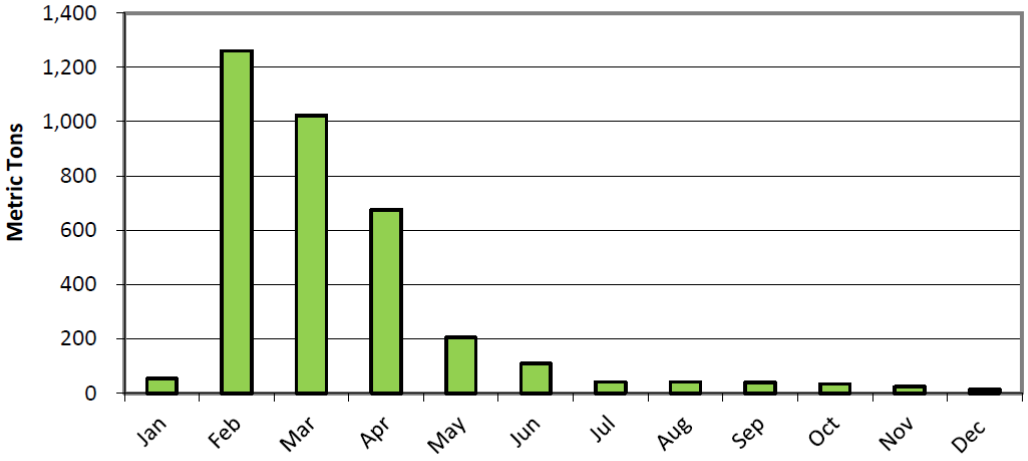
New Zealand pear consumption is forecast to remain relatively steady at 12,700 MT.

Trade

Exports

FAS/Wellington has revised down the pear export estimate for 2022/23 to 1,500 MT, as a result of lower production. Taiwan continues to be by far the largest export market, accounting for half of exports. Historically 85 percent of New Zealand Pear exports takes place from February to April (see Figure 7), with 905 MT already shipped in the first quarter of 2022/23.

Figure 7: Historical Average of New Zealand Pear Exports



Source: Trade Data Monitor LLC

Imports

Pear imports for 2022/23 are forecast at 4,000 MT, up from 3,600 MT last year, as a result of lower domestic production. Australia accounted for over three-quarters of imports, with China and the United States the next two largest suppliers.

Table 3: New Zealand Fresh Pears Production, Supply and Demand

Pears, Fresh	2020/2021		2021/2022		2022/2023	
Market Year Begins	Jan 2021		Jan 2022		Jan 2023	
New Zealand	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HA)	375	375	375	375	375	375
Area Harvested (HA)	330	330	345	345	360	325
Commercial Production (MT)	10550	10550	11300	11300	12000	10000
Non-Comm. Production (MT)	100	100	200	200	200	200
Production (MT)	10650	10650	11500	11500	12200	10200
Imports (MT)	4500	4500	4000	3600	4000	4000
Total Supply (MT)	15150	15150	15500	15100	16200	14200
Domestic Consumption (MT)	13050	13050	13000	12600	13200	12700
Exports (MT)	2100	2100	2500	2500	3000	1500
Total Distribution (MT)	15150	15150	15500	15100	16200	14200
(HA) ,(1000 TREES) ,(MT)						

Attachments:

No Attachments