Required Report: Required - Public Distribution
Date: December 19, 2023
Report Number: AS2023-0025

## Report Name: Citrus Annual

Country: Australia
Post: Canberra
Report Category: Citrus

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## Report Highlights:

Early seasonal conditions for the MY 2023/24 citrus crop have been favorable, and producers expect to benefit from an easing of fertilizer and crop protection chemical costs, along with a further easing of labor constraints. Orange production is expected to increase five percent to 530,000 metric tons (MT) from the prior's year estimate, the second highest over the last two decades. Tangerine/mandarin production is forecast at $180,000 \mathrm{MT}$, the third highest on record. Orange exports are forecast to increase by 13 percent to $180,000 \mathrm{MT}$, and tangerine/mandarin exports are expected to reach $85,000 \mathrm{MT}$ for MY 2023/24. Orange juice production is forecast to fall by four percent to 15,400 MT, mainly due to the anticipated improvement of fresh (navel) orange fruit quality, while imports are forecast to remain stable at $14,000 \mathrm{MT}$.

## EXECUTIVE SUMMARY

The production of oranges is expected to increase in Australia in marketing year (MY) 2023/24 to 530,000 metric tons (MT) from an estimated 505,000 MT in MY 2022/23. If realized, this would be Australia's second-highest result over the last two decades. This increase is largely related to the biennial effect of an up year and the expectation of a return to normal seasonal conditions. Along with a good early start to the production conditions, citrus producers expect to benefit from easing input costs and labor constraints for the forecast year. In particular, the cost of fertilizer and crop protection chemicals have reduced considerably over recent months to near typical past levels, which are anticipated to continue well into the forecast year. Labor shortages, caused by the impacts of the COVID-19 pandemic, have improved considerably for the MY 2022/23 estimate year, and this is expected to improve further in the forecast year. Also, the major irrigation water storages are near capacity, giving growers confidence that there will be ample water availability for the MY 2023/24 crop.

Orange exports are forecast at $180,000 \mathrm{MT}$, a much larger result than the estimated $160,000 \mathrm{MT}$ of exports in MY 2022/23, primarily due to the higher production forecast. If achieved, this export forecast would be the fifth largest on record. Domestic consumption is also forecast for a boost to 160,000 MT in the forecast year from an estimate of 145,000 MT in MY 2022/23. However, the volume of oranges for processing is forecast to decline by five percent to 200,000 MT on the expectation of improved fresh orange fruit quality in the forecast year.

Mandarin planted area in Australia continues to expand at a greater rate than navel oranges (fresh), but also has a greater diversity of production regions than for oranges. Mandarin planted area has increased by 50 percent since 2014 , with a particular focus on seedless varieties, much of which will begin bearing fruit in the coming years, boosting production and export growth to record levels. Mandarin production is forecast at 180,000 MT for MY 2023/24 and exports at 85,000 MT - near record levels. Domestic consumption is expected to remain unchanged at $94,000 \mathrm{MT}$ in the forecast year.

Australia's forecast production of orange juice is expected to fall by four percent to $15,400 \mathrm{MT}$, mainly due to the anticipated improvement of fresh (navel) orange fruit quality, reducing the forecast volume of oranges for processing. Orange juice imports are forecast to remain unchanged at $14,000 \mathrm{MT}$ from the MY 2022/23 estimate. However, exports are forecast to fall back to 4,000 MT from the 5,000 MT estimated for MY 2022/23. Domestic consumption of orange juice is forecast to remain similar to recent past levels at $25,500 \mathrm{MT}$.

## FRESH ORANGES

## Industry Background

The major orange production areas in Australia are in the southern temperate climate regions, with good availability and a reliable supply of irrigation water (see Figure 1). These regions are known as:

| Riverina | - located in southern New South Wales around Griffith and Leeton |
| :--- | :--- |
| Murray Valley | - located along the Murray River in the northwest of Victoria mostly between |
|  | Mildura and Swan Hill |

The key characteristics of these regions are that they are a temperate climate with free-draining sandy loam soil types and low annual rainfall of around 300 millimeters ( mm ), most of which falls between May and October during harvest and the early growth phases of the subsequent crop. Although winters are mild, there is an adequate cold chill period for the trees. These regions are very dependent upon irrigation to meet the tree water demands. These conditions support good bud bursts, offering high potential yield, and the low rainfall and warmer temperatures from spring to autumn minimize the risk of frosts, humidity and hail while optimizing growth rates with well-managed drip irrigation and fertilizer programs.

These three regions have a total orange production area of 16,131 hectares (ha), representing 90 percent of the national area. Nationally, navel oranges total of 11,530 ha and Valencia oranges 6,310 ha (Source: Citrus Australia - Australian Citrus Tree Census 2022). The Riverina area is by far the largest producer of oranges. Around 53 percent of its total production area is Valencia, representing 66 percent of the national area of juicing oranges. Other small orange-producing areas exist in northern New South Wales, Queensland and Western Australia.

The harvest period in the three major production regions for navel oranges is typically from May to October, and for Valencia oranges, it is usually from November to February. Some of the highest quality Valencia oranges are sold in the fresh market (rather than being juiced), extending consumers' domestic season of available fresh oranges.

Citrus Australia carries out an annual tree census, the first of which was in 2014. The results from 2014 to 2022 show a significant increase in plantings of the navel and red flesh orange varieties over the eight years in the major producing regions in Australia. However, the impact on overall production as the trees transition from non-bearing to mature production will take some time.

Figure 1 - Orange Production Regions in Australia


Source: Citrus Australia / Australian Bureau of Statistics Census / FAS/Canberra
Around 90 percent of the non-juicing orange varieties are navel oranges; and for this report, all nonjuicing oranges are referred to as navel oranges. The majority of the juicing varieties ( 85 percent) are Valencia orange varieties and for the purpose of this report, all juicing varieties are referred to as Valencia oranges.

The total planted area of the navel and Valencia oranges has increased by 17 percent from 15,307 ha in 2014 to 17,839 ha in 2022. During this period, the area of Valencia oranges declined by five percent, and the area of navel oranges increased by 33 percent. Of the growth in planted area of navel oranges, mid-season, and red flesh varieties had the largest growth of 1,286 ha (55 percent) and 1,065 ha (500 percent) respectively (see Figure 2).

Overall, the long-term trend is rising production due to tree expansion, but there may be some lag time for several reasons:

1) There has been an increasing area of new planting over recent years (non-bearing 0-4 years) BUT
2) There has been a shift to increased trees that are in their declining period (40+ years) in 2021 and 2022 AND
3) The area of mature trees (13-39 years) that are in their prime period of production has fallen from 2020 to 2022 (see Figure 3)

In the short to medium term while the new plantings are establishing production potential is likely to remain flat before the new plantings reach a mature age and hit their peak production period.

Figure 2 - Change in Orange Plantings 2014 to 2022


Source: Citrus Australia / Horticulture Innovation Australia

Figure 3 - Change in Orange Maturity Profile 2014 to 2022


Source: Citrus Australia / Horticulture Innovation Australia

## Production

FAS/Canberra forecasts fresh orange production of 530,000 MT in MY 2023/24 (April 2024 to March 2025), a five percent increase on the MY 2022/23 estimate of $505,000 \mathrm{MT}$. This increase is primarily related to the combination of an expectation of a return to normal seasonal conditions but is also, impacted by the typical biennial effect of higher yields anticipated for the forecast year. The period in the lead-up and during fruit set has been typical, relatively dry weather. After the fruit set, there has been average to above average rainfall, encouraging good growth in the fruit that has set. These conditions have placed the forecast crop on a path toward good yields and quality.

As previously mentioned, there has been a shift in the tree age profile of orange trees between 2020 and 2022, with a significant decline in the area of Mature (13-39 years), and a substantial increase in the number of trees in the Decline (40+ years) phase. The number of trees Entering Production (5-12 years) had also declined. But overall, there has been a slight increase in the overall area of oranges of bearing age, and it is important to note that the area of juicing oranges was static, meaning that the slight increase in the area of oranges of bearing age was all navel oranges for fresh market supply. So, with little growth in oranges of bearing age for 2023 , there is little impact on production potential expected for MY 2023/24. However, according to industry sources, there is a biennial effect on the yields of oranges and MY 2023/24 is expected to be an up year. This analysis has had the most significant bearing on the forecast production of 530,000 MT for MY 2023/24.

Along with a good early start to the production conditions, changes to input cost will influence the decision-making process of orange growers and contribute to the production and quality outcome for the forecast crop. There is an anticipation of reduced input costs, further easing harvest labor constraints, and a continuation of ample irrigation water availability. These circumstances are expected to encourage growers to optimize their orange crops to improve the volume of higher-value sales for MY 2023/24.

## Moderated Fertilizer Prices

Fertilizer prices during 2023 have eased past typical levels, from the huge energy cost-driven spike in prices during 2022. Fertilizer prices are expected to settle at around typical past levels during 2024, providing substantial cost relief for citrus growers compared to 2022 and 2023.

Australia highly depends on nitrogen and potash fertilizer imports, exposing the country to world market prices. Nitrogen fertilizer production requires large amounts of energy, usually gas, which started rising in early 2021 and was further exacerbated by supply shortages associated with the Russia-Ukraine war. With this circumstance, nitrogenous fertilizer prices (the main fertilizer input for citrus producers), escalated 3 to 4 -fold (see Figure 4). However, gas prices have eased considerably during 2023, and consequently nitrogenous fertilizer prices have also declined considerably. At this point, no foreseeable disruption may cause gas prices to drastically rise again, so the price of the key fertilizer input for citrus growers is not expected to be an excessive cost burden in 2024.

Figure 4 - Fertilizer Import Price Trend


Source: Australian Bureau of Statistics

## Eased Crop Protection Chemical Prices

Like fertilizer, there has been substantial volatility in crop protection chemical imports, which Australian citrus growers are very dependent on. Similar to fertilizer, the price of chemicals has fallen dramatically in recent months. The price is in fact lower than past typical levels (see Figure 5). These levels may rise somewhat but this is expected to be a substantial cost relief to citrus producers for the forecast year.

Australia produces very little of its chemical needs (including insecticides, rodenticides, fungicides, herbicides, anti-sprouting products, etc.), and the majority (around 60 percent) of it is imported from China. Much like fertilizer, the price of chemicals had been relatively flat for multiple years averaging US\$4,388 per MT for the three years from April 2019 to March 2022. However, there were two major spikes around mid-2022 and mid-2023, affecting costs of production over the last two marketing years (MY 2022/23 and MY 2023/24). This volatility was due to a combination of rises in energy and shipping prices and COVID-19 disruptions and lockdowns in China. With the world moving past these disruptions, the current challenges are associated with a slow-down in the world economy, which has impacted chemical product demand. This is expected to have an influence over chemical prices for the forecast year, providing citrus growers with some cost-of-production relief.

Figure 5 - Chemical Import Price Trend


Source: Australian Bureau of Statistics
Note: HS Code 3808 (Insecticides, Rodenticides, Fungicides, Herbicides, Anti-sprouting Products etc., Packaged for Retail Sale or as Preparations or Articles)

## Ample Irrigation Water

The major water storages influencing the key orange-producing regions were all at or near capacity at the end of November 2023, well into the start of the 2023/24 irrigation season. With strong water allocations and traded water on the temporary market at relatively low prices, supply nor cost will have any detrimental impact on production and the cost of production of oranges in the forecast year. With good rains in the irrigation catchment areas in late November and early December 2023, there is an expectation that there will be ample irrigation water at a low cost for at least the remainder of the current and the following 2024/25 irrigation season.

## Easing of Harvest Labor Constraints

Industry sources indicate that there has been a slight easing of labor shortages compared to past years, which were heavily impacted by the effects of COVID-19. Australian federal government treasury forecasts anticipate the unemployment rate to increase to around 4.5 percent during the forecast year from the 50 -year record lows of about 3.5 percent in MY 2022/23. Although the forecast unemployment rate is still relatively low, it will provide better opportunities for citrus growers to source more domestic labor.

Two main sources of harvest labor for citrus growers are temporary visa holders. They are working holidaymakers in Australia and workers from the Pacific Australia Labor Mobility (PALM) scheme. The government reports that working holidaymaker numbers in Australia are at pre-pandemic levels, and

PALM numbers are at record levels. Industry sources indicate that there were still harvest labor pressures in MY 2022/23, but the situation has improved considerably in recent years.

With further reduced pressure on labor resourcing for MY 2023/24, this is expected to support more timely pruning and other preparations for the forecast crop and for harvest to occur promptly. This will have a positive influence on fruit quality.

Another substantial input cost for citrus growers is energy, mainly for pumping irrigation water. Even though Australia is an energy resource-rich nation with large reserves of thermal coal, gas, and uranium and the world's number one solar energy producer on a per capita basis, electricity prices have risen substantially over recent years. In Australia, around one-third of the consumer price of electricity is the cost of energy, and two-thirds is the cost of cost of delivery and administration. So, even if world energy prices ease, the cost of electricity to consumers is not expected to decline to past levels, such as with fertilizer and chemicals. In general terms, higher electricity costs are now entrenched. With elevated electricity costs, some citrus growers may in the coming years choose to manage their electricity price and reliability risk by establishing their own on-farm renewable energy production and storage systems.

The FAS/Canberra orange production estimate for MY 2022/23 of 505,000 MT is in line with the official USDA estimate. Production for this year is estimated to be six percent below the prior MY 2021/22 (estimated to have reached a 20 -year peak of 535,000 MT). For MY 2022/23, the production estimate is similar to other low-production years over the last decade. This was anticipated due to the biennial effect. However, producers received well above average rains early in the production season (see Figure 6), encouraging a very strong fruit set. As a result, trees overloaded with oranges led to lower quality fruit at harvest.

During the MY 2022/23 harvest (May 2023 to October 2023), the period had average to below-average rainfall across three navel orange-producing regions (see Figure 7). This also supported fruit quality via reduced disease pressures. With ample irrigation water, growers could support the crop needs to ensure that fruit growth was well managed to optimize quality in the lead-up to harvest.

Figure 6 - Rainfall Deciles - September to November 2022


Source: Bureau of Meteorology

Figure 7 - Rainfall Deciles - May to October 2023


Source: Bureau of Meteorology

Citrus growers harvest all their oranges for the health of the trees to optimize the subsequent production year. As a result, this year was the second successive year where there were substantial impacts on orange quality, for MY 2022/23 mainly due to trees with overloaded fruits due to ample rains early in the production season. The effect was lesser for MY 2022/23.

## Consumption

FAS/Canberra forecasts domestic consumption of fresh oranges in MY 2023/24 to increase to 160,000 MT from an estimated 145,000 MT for MY 2022/23. The forecast depends on increased production and a return to producing good-quality oranges. With the expectation of a return to typical fruit quality, consumption for the forecast year is expected to rise to above past average levels, supported by a rising population.

After strong population growth in 2023, Australia expects a high rate of migration to continue in 2024, supporting a higher rate of population growth than usual. This burst follows very low migration levels associated with the COVID-19 pandemic. The population growth is anticipated to contribute to higher domestic demand for fresh oranges.

Consumption for processing is forecast to decline to 200,000 MT in MY 2023/24 from an estimate of 210,000 MT in MY 2022/23. This forecast decline is related to the expectation of a return to a typical fruit quality harvest, resulting in a lower volume of rejected navel oranges being channelled towards juicing during the packing process.

FAS/Canberra's orange consumption estimate of 145,000 MT for MY 2022/23 is substantially higher than the official USDA estimate of $130,000 \mathrm{MT}$. This variance is mainly due to the lower-than-expected quality of navel oranges produced in this season, resulting in a lower volume of oranges suited for the export market, with the surplus redirected towards the domestic market and juicing.

## Trade

Exports
FAS/Canberra forecasts fresh orange exports of 180,000 MT in MY 2023/24, a 20,000-MT increase over the downward revised MY 2022/23 estimate of 160,000 MT. This is a return towards recent past levels ranging from 181,000 MT to 198,000 MT achieved between MY 2016/17 and MY 2019/20, and if achieved would be the fifth highest on record. The higher production expectation and the anticipation of typical overall quality, support a higher export forecast for MY 2023/24.

Exports are largely influenced by production and quality. In seasons where overall quality is high, a larger proportion of fresh oranges are suited for the export market, and it also reduces the volume of rejects channeled towards juicing.

Exports of Australian oranges are highly seasonal, with a small volume of exports in May from production regions in the northern parts of Australia, followed by of significant volumes beginning in June as harvest in the three major producing regions commences (see Figure 8). Peak exports are in the July to September period before tailing off through to December. This seasonal harvest offers the opportunity to export navel oranges to nearby low-producing Asian countries, as well as counterseasonal northern hemisphere countries.

Figure 8 - Seasonality of Australian Fresh Orange Trade


Source: Australian Bureau of Statistics
The major export destinations for Australian oranges over recent years have been Japan, China, and Hong Kong. However, South Korea has become a significant destination in MY 2022/23. These four nations typically account for around 60 percent of overall exports (see Figure 9). Australia exports fresh oranges to over 35 nations, with most of the largest export destinations in Asia.

Japan, over recent years, has been the largest export destination, typically with a relatively stable volume from year to year of around 35,000 MT. In contrast, exports to China and Hong Kong have been around 20,000 to 25,000 MT annually. The biggest change has been in South Korea, where exports have more than doubled in MY 2022/23 compared to the previous two marketing years.

For the April to October period (which usually accounts for around 90 percent of exports for the full marketing year), the trends observed for MY 2022/23 are likely to hold for the remainder of the marketing year.

Figure 9 - Major Orange Exports - Apr-Oct MY 2020/21 to 2022/23


The gradual decline in the volume of orange exports to China is part of a trend of decreasing imports by China, mainly due to continued growth in domestic production. There are four key sources of orange imports for China, which over recent years have accounted for 96 to 99 percent of overall imports. Of particular note is that the volume of imports from the two northern hemisphere countries, Egypt and the United States, has declined significantly in recent years. However, import volumes from the southern hemisphere nations, South Africa and Australia, have broadly remained stable or increased somewhat, and their overall share of imports has increased (see Figure 10).

Figure 10 - China's Major Orange Imports - Apr-Oct MY 2018/19 to MY 2022/23


[^0]The official USDA MY 2022/23 orange export estimate of 180,000 MT is downward revised by FAS/Canberra to 160,000 MT. The exports for April to October of MY 2022/23 are 145,000 MT, and the pace typically tails off sharply for the remaining five months of the marketing year. On average, over the last five years, the remaining five months have accounted for nine percent of overall exports, which supports the downward revision.

## TRADE ACCESS

United Kingdom - Australia Free Trade Agreement
The United Kingdom (UK) and Australia free trade agreement came into force on May 31, 2023. As part of this agreement, Australia received tariff free access for citrus fruits to the United Kingdom (UK). Australia's trade of citrus to the UK has mainly been very small volumes of mandarins and, due to the sea freight distance between the two nations, it is not anticipated that the elimination of tariffs will have a significant impact on the citrus trade from Australia to the UK. So far, no oranges and 202 MT of mandarins have been exported to the UK. But larger volumes of mandarins have been exported to the UK in the past.

## European Union - Australia Free Trade Agreement

The European Union (EU) and Australia had been negotiating a free trade agreement since June 18, 2018. These negotiations have failed in recent months and are unlikely to resume in the near term. Although the EU is a large trading partner, similarly to the UK, the limitation to trade for the citrus industry (if it is included in the FTA) to benefit significantly, is the large sea freight distance and cost, compared to expanding trade into the Asian region.

Expanded Access for Australian Citrus to the United States
Australia has trade access for citrus produced in specific regions for export to the United States. This access is mainly from the major orange-producing regions. The Australian citrus industry has requested access for a greater region incorporating mainly mandarin- producing areas. The process is advanced, but a commitment or timeline has yet to be established to finalize in favor or against the request.

Over the last five years, Australia has exported from 1,300 MT to 5,400 MT of oranges and 1,200 MT to 6,200 MT of mandarins per annum to the United States. Further access to the United States for Australia will likely be more significant to the Australian citrus industry than the UK or EU.

Imports
FAS/Canberra forecasts orange imports to remain stable at 10,000 MT in MY 2023/24, from the MY 2022/23 estimate. These are similar to levels seen during the disruptions associated with the COVID-19 pandemic. But in the few years prior to the pandemic, orange imports ranged from 14,000 to $16,000 \mathrm{MT}$. Despite an increasing population in Australia and the pandemic-related logistics and high shipping cost issues now fully resolved, there are no signs that orange imports will recover to pre-pandemic levels in the short term.

Over the last five years, which includes a pre-pandemic period, the volume of all the major fruits (other than cherries) imported by Australia has trended downwards (see Figure 11). These fruit imports fill market gaps outside of Australia's production seasons. The reasons for Australia's declining appetite for imported counter-seasonal fruit are unclear.

Figure 11 - Major Fruit Imports to Australia MY 2018/19 to 2022/23


Source: Australian Bureau of Statistics
Note: $\quad$ Exports of Oranges and Mandarins for MY 2022/23 typically commence in Dec 2023

Imports of oranges from northern hemisphere countries are counter-seasonal to domestic production, occurring between December and April each year. Almost all imports of navel oranges are from the United States, and the balance of five to ten percent is almost entirely from Egypt (see Figure 12). It is reported that orange production and quality are expected to be down in the United States in the current marketing year, which is likely to keep imports by Australia relatively low for the upcoming MY 2022/23 import season, as per recent past years.

Figure 12 - Major Fresh Orange Imports to Australia MY 2019/20 to 2021/22


Source: Australian Bureau of Statistics
Table 1 - Production, Supply, and Distribution of Fresh Oranges

| Oranges, Fresh Market Year Begins Australia | 2021/2022 |  | 2022/2023 |  | 2023/2024 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Apr 2022 |  | Apr 2023 |  | Apr 2024 |  |
|  | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Planted (hectares) | 17700 | 17700 | 17800 | 17800 | 0 | 17900 |
| Area Harvested (hectares) | 15300 | 15300 | 15400 | 15400 | 0 | 15500 |
| Bearing Trees (1000 Trees) | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-Bearing Trees (1000 TREES) | 0 | 0 | 0 | 0 | 0 | 0 |
| Total No. Of Trees (1000 TREES) | 0 | 0 | 0 | 0 | 0 | 0 |
| Production (1000 MT) | 535 | 535 | 505 | 505 | 0 | 530 |
| Imports (1000 MT) | 10 | 10 | 15 | 10 | 0 | 10 |
| Total Supply (1000 MT) | 545 | 545 | 520 | 515 | 0 | 540 |
| Exports (1000 MT) | 145 | 144 | 180 | 160 | 0 | 180 |
| Fresh Dom. Consumption (1000 MT) | 185 | 186 | 130 | 145 | 0 | 160 |
| For Processing (1000 MT) | 215 | 215 | 210 | 210 | 0 | 200 |
| Total Distribution (1000 MT) | 545 | 545 | 520 | 515 | 0 | 540 |
|  |  |  |  |  |  |  |

(HECTARES) ,(1000 TREES) ,(1000 MT)

## ORANGE JUICE

## Production

FAS/Canberra forecasts orange juice production in MY 2023/24 of $15,400 \mathrm{MT}$, a decrease of four percent from the MY 2022/23 estimate of $16,100 \mathrm{MT}$. A return to more typical seasonal conditions is anticipated for the forecast year, with higher production and improved fruit quality for fresh oranges, resulting in a lower volume of rejected fruit channeled toward juicing. Also, assuming normal seasonal conditions, and easing key input costs (as previously mentioned for fresh oranges), Valencia orange production is expected to be at typical levels in the forecast year.

As previously mentioned, during the estimate year, navel oranges were of lower quality than usual, which resulted in a higher than usual reject rate of fresh oranges at packing and greater than usual volumes channeled to processing for orange juice.

Overall, the production potential of Valencia oranges is likely to remain relatively stable in the short term. The planted area of juicing varieties, which is now at 35 percent of the overall orange planted area, unlike navel oranges, has declined by merely five percent from 2014 to 2022 (see Figure 2).

The small decline in the Valencia area (juicing varieties) is offset by the increase in the navel orange production area, resulting in incremental increases in navel orange reject volume being channeled to juice production in the coming years. The industry expects that as the Mature ( $40+$ years) Valencia trees productivity becomes unviable, they will be removed, and the overall area of Valencia trees will decline rapidly than in recent years.

## Consumption

FAS/Canberra forecasts domestic consumption of juice in MY 2023/24 of 25,500 MT, marginally above the 25,000 MT estimate for MY 2022/23. This is approximately in line with the consumption over recent past years. This is, however, around 5,000 MT lower than MY 2019/20 and prior. There has been a substantial shift over recent years with lower imports and higher exports, contributing to substantially lower domestic consumption results.

The FAS/Canberra MY 2022/23 orange juice consumption estimate of 25,000 MT is a substantial downward revision from the official USDA estimate of $31,000 \mathrm{MT}$. With Australia dependent upon importing around half of its juice consumption volume, variances in domestic production are unlikely to be a significant influence on consumption. Instead, it may be influenced by the growing cost of living pressures over recent years and a rising health consciousness towards higher-value fresh orange juice and away from lower-value reconstituted orange juice.

## Trade

## Exports

FAS/Canberra's forecast for orange juice exports for MY 2023/24 at 4,000 MT is 1,000 MT lower than the MY 2022/23 estimate, which is influenced by a lower production forecast. Exports are quite low at around a quarter of the overall production volume. Exports over the last 10 years have ranged from as low as 1,500 MT to 5,600 MT and averaged 3,700 MT.

New Zealand has by far been the primary destination for orange juice exports for Australia for many years (see Figure 13), and results to date for MY 2022/23 are showing a continuation of this trend.

Figure 13 - Orange Juice Exports to New Zealand - MY 2017/18 to 2021/22


Source: Australian Bureau of Statistics

The FAS/Canberra MY 2022/23 orange juice export estimate of $5,000 \mathrm{MT}$ is $1,000 \mathrm{MT}$ above the official USDA estimate. For the first four months of the marketing year, exports are at around 1,500 MT for a period in which, over the last five years, averaged around 28 percent of the annual export volume. Based on this seasonality, if it holds true for the remainder of the year, the estimate of 5,000 MT for MY 2022/23 can be achieved.

## Imports

FAS/Canberra forecasts the import of orange juice in MY 2022/23 at 14,000 MT, which is in line with the MY 2022/23 estimate. As previously mentioned, there was a major dip in imports after MY 2019/20, down by around $5,000 \mathrm{MT}$ from the previous average level of $19,000 \mathrm{MT}$. This recent trend continued for the first four months of MY 2022/23. There is no indication that this lower import level over recent years will change for the forecast year.

Brazil has been the major source of orange juice imports to Australia for many years and, in recent years typically accounts for well over 80 percent of overall imports. Turkey had consistently been the second largest source at less than 10 percent or less (see Figure 14), but for MY 2021/22, it had reduced to very little, and instead imports from Israel have stepped up. This switch in imports away from Turkey and towards Israel has continued into the first four months of MY 2022/23.

Figure 14 - Australian Orange Juice Imports MY 2019/20 to MY 2021/22


Source: Australian Bureau of Statistics

The FAS/Canberra MY 2022/23 orange juice import estimate of 14,000 MT is 5,000 MT lower than the official USDA estimate. For the July to October 2023 period of the marketing year, 2,400 MT of orange juice was imported. Over the last five years, on average, this period accounted for one-third of full marketing year imports. However, there has been a substantial variation in import patterns from year to year and it is anticipated that the rate of imports will increase for the remainder of the marketing year.

Table 2 - Production, Supply, and Distribution of Orange Juice

| Orange Juice <br> Market Year Begins Australia | 2021/2022 |  | 2022/2023 |  | 2023/2024 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jul 2022 |  | Jul 2023 |  | Jul 2024 |  |
|  | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Deliv. To Processors (MT) | 215000 | 215000 | 210000 | 210000 | 0 | 200000 |
| Beginning Stocks (MT) | 376 | 376 | 376 | 976 | 0 | 1076 |
| Production (MT) | 16500 | 16500 | 16100 | 16100 | 0 | 15400 |
| Imports (MT) | 18000 | 14100 | 19000 | 14000 | 0 | 14000 |
| Total Supply (MT) | 35176 | 30976 | 35476 | 31076 | 0 | 30476 |
| Exports (MT) | 3500 | 4000 | 4000 | 5000 | 0 | 4000 |
| Domestic Consumption (MT) | 31000 | 26000 | 31000 | 25000 | 0 | 25500 |
| Ending Stocks (MT) | 376 | 976 | 476 | 1076 | 0 | 976 |
| Total Distribution (MT) | 35176 | 30976 | 35476 | 31076 | 0 | 30476 |
|  |  |  |  |  |  |  |
| (MT) |  |  |  |  |  |  |

## FRESH TANGERINES/MANDARINS

## Industry Background

Australia's mandarin and tangerine production regions are far more diverse than the three major orangeproducing regions. While there are tangerines produced in Australia, the overall area is very small, so almost all production is mandarin varieties, with Afourer, Imperial, and Murcott's (and their respective derivatives) being 79 percent of the overall area (Source: Citrus Australia - Australian Citrus Tree Census 2022).

Queensland, by far, has the largest area of mandarin production in Australia at 4,440 ha, accounting for 54 percent of the national production (see Figure 15). The next largest regions are the Riverland in South Australia, with 1,430 ha (18 percent), and Murray Valley in Victoria, with 1,419 ha (17 percent). The largest mandarin producing area in Queensland is in the Central Burnett area in the southeast of the state around Gayndah and Mundubbera, but they are also produced in Emerald (Central Queensland) and Mareeba (Far North Queensland). Other small mandarin-producing areas are in northern New South Wales, Northern Territory, and Western Australia.

Figure 15 - Tangerine/Mandarin Production Regions in Australia


Source: Citrus Australia / Australian Bureau of Statistics Census / FAS/Canberra

Over the period from 2014 to 2022, since tree census data has been collected, there has been a 50percent increase in mandarin plantings from 5,451 ha to 8,157 ha. This is a much larger growth rate and
total area growth than oranges over the same period. Also, this growth has broadly occurred across all producing regions in Australia.

The Afourer (including Amorette and Tango) variety has by far had the largest growth in production area over the 2014 to 2022 period, from 998 ha to 2,724 ha, and is now clearly the dominant variety (see Figure 16). The area of Murcott (includes low-seeded Honey Bee and Royal Honey) has also increased by 27 percent over the same period, while the older variety Imperial (includes Goldup and Avana) has declined by six percent. In the 'other' category, including tangelos, there are 29 varieties, the total planted area of which has grown by 60 percent ( 638 ha ). The varieties in this 'other' category with the greatest increase in the planted area are all relatively new low-seed or seedless varieties, Daisy, Phoenix, and Tango.

Figure 16 - Change in Mandarin Plantings 2014 to 2021


Source: Citrus Australia / Horticulture Innovation Australia
Notes: \# Includes low seeded

The growth in mandarin plantings that occurred over the 2014 to 2022 period is evident from the area of non-bearing ( $0-4$ years) trees increasing by over 1,061 ha to $2,039 \mathrm{ha}$, a change of 109 percent (see Figure 17). However, the rate of new plantings has declined over the last two years. The change in the number of trees entering production (5-12 years) has remained relatively static over the last six years at around $2,600 \mathrm{ha}$, almost a third of the total tree area. During the same period, there has been a 966 ha (39 percent) increase in the area of mature trees ( $13-39$ years), with the biggest increases occurring over the last two years. With a mandarin tree age profile in 2022 of one-quarter non-bearing and very little area of trees in the declining age category ( $40+$ years), the industry can expect rapid growth in production in the coming years as these trees begin to bear fruit.

Figure 17 - Change in Mandarin Maturity Profile 2014 to 2021


Source: Citrus Australia / Horticulture Innovation Australia

## Production

FAS/Canberra forecasts production of tangerines/mandarins in MY 2022/23 of 180,000 MT, a five percent decrease from the MY 2022/23 estimate of 190,000 MT. This decline is mainly due to a biennial effect, with the forecast year being a down year. The biennial effect for tangerines/mandarins is less pronounced than for orange production. In addition, with the young tree age profile, with an increasing area of plantings entering production and boosting overall production, the biennial effect is also further masked.

Similar to orange production, mandarins can look forward to ample irrigation water availability and reduced costs for fertilizer and chemicals for the forecast year. As mentioned, a further easing of harvest labor shortages is anticipated for the forecast year. These will all contribute to another strong production year for MY 2023/24, and if achieved, it would be the third highest on record.

The FAS/Canberra mandarin production estimate for MY 2022/23 is at 190,000 MT and is in line with the official USDA estimate. Mandarin producers generally experienced good growing conditions in the major producing areas with broadly good quality outcomes.

## Consumption

FAS/Canberra forecasts domestic consumption of mandarins in MY 2023/24 at 94,000 MT, which is in line with the MY 2022/23 estimate. Australia consumes around half of the overall production, but as production continues to rise in the coming years, consumption is likely to dip well below half of overall production, as growth in consumption is not expected to keep pace with the rise in production.

With a shift to increasing production of seedless mandarin varieties, and a growing population, a gradual trend of increasing consumption is likely in the coming years.

The FAS/Canberra mandarin consumption estimate for MY 2022/23 is 94,000 MT, seven percent lower than the official USDA estimate of $101,000 \mathrm{MT}$. This is primarily due to the stronger-than-expected export estimate.

## Trade

Exports
FAS/Canberra forecasts mandarin exports in MY 2023/24 of 85,000 MT from an estimated 95,000 MT in MY 2022/23. This is due to a forecast decrease in production of 10,000 MT for MY 2023/24. If the forecast is realized, it will be the third-highest volume of mandarin exports on record for Australia. Based on an increase in plantings over recent years, Post anticipates that, as trees mature, production will continue to increase, and exports are expected to reach new record peaks in the coming years.

Australian exports of mandarins are well diversified, with around 35 destinations and the top ten nations accounting for about 85 percent of all exports over the last three years (see Figure 18). Thailand has increased its appetite for Australian mandarins over the last three years and has now surpassed China to become Australia's biggest export destination at 19 percent of overall exports. Indonesia, Philippines, and Vietnam each accounted for seven to ten percent of overall exports in MY 2022/23 so far. The bottom five of the top 10 are all substantial destinations at around five percent of overall exports.

Figure 18 - Major Tangerine/Mandarin Export Destinations


Source: Australian Bureau of Statistics

The FAS/Canberra mandarin export estimate for MY 2022/23 of 95,000 MT has been upward revised from the official USDA estimate of 90,000 MT. Exports for April to October 2023 were 94,500 MT, and this period, on average accounts for almost 99 percent of overall exports for the full marketing year. This will be a record export result for Australia, with the previous record being 87,000 MT in MY 2018/19.

## Imports

FAS/Canberra forecasts tangerine/mandarin imports for MY 2022/23 at 2,000 MT, in line with the MY 2022/23 estimate. Past import results had been stable at around 4,000 MT per annum but have declined over recent years and have shown no signs of recovery. These imports are counter-seasonal to production in Australia (similar to oranges) and are used to fill low-level consumer demand during this period. Imports are around one percent of domestic production and two percent of domestic consumption.

Table 3 - Production, Supply, and Distribution of Fresh Tangerines and Mandarins

| Tangerines/Mandarins, Fresh Market Year Begins Australia | 2021/2022 |  | 2022/2023 |  | 2023/2024 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Apr 2022 |  | Apr 2023 |  | Apr 2024 |  |
|  | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Planted (hectares) | 7800 | 7800 | 7900 | 7900 | 0 | 8000 |
| Area Harvested (HECTARES) | 5700 | 5700 | 5800 | 5800 | 0 | 5900 |
| Bearing Trees (1000 TReES) | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-Bearing Trees (1000 trees) | 0 | 0 | 0 | 0 | 0 | 0 |
| Total No. Of Trees (1000 trees) | 0 | 0 | 0 | 0 | 0 | 0 |
| Production (1000 MT) | 175 | 175 | 190 | 190 | 0 | 180 |
| Imports (1000 MT) | 3 | 2 | 4 | 2 | 0 | 2 |
| Total Supply (1000 MT) | 178 | 177 | 194 | 192 | 0 | 182 |
| Exports (1000 MT) | 75 | 74 | 90 | 95 | 0 | 85 |
| Fresh Dom. Consumption (1000 MT) | 100 | 100 | 101 | 94 | 0 | 94 |
| For Processing (1000 MT) | 3 | 3 | 3 | 3 | 0 | 3 |
| Total Distribution (1000 MT) | 178 | 177 | 194 | 192 | 0 | 182 |
|  |  |  |  |  |  |  |

## Attachments:

No Attachments


[^0]:    Source: $\quad$ Trade Data Monitor

