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## **Report Name:** Citrus Annual

**Country:** Australia

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### **Report Highlights:**

Citrus production in Australia has experienced favorable conditions after above average rainfalls in all of the major growing areas across 2020 and 2021. Most irrigation storage dams are now at or near capacity supporting the irrigation program for the forecast marketing year (MY) 2021/22 crop. Orange production is forecast to increase by two percent to 535,000 metric tons (MT), and tangerine/mandarin production at 190,000 MT, a six percent increase over MY 2020/21. Orange exports are forecast at 190,000 MT, a 19 percent increase over MY 2020/21, and tangerine/mandarin exports are set to reach a record 90,000 MT. Harvest labor shortages over the last two seasons due to Australia's international border closure have been a major concern for citrus growers. Australia's border is set to open in December 2021 and at the same time the Federal Government has established a new Agricultural Work visa with the pilot commencing at the same time, which will provide some harvest labor relief for MY 2021/22.

## **Executive Summary**

Citrus production in Australia is experiencing favorable conditions after above average rainfalls in all of the major growing areas across 2020 and 2021. These rains have resulted in most irrigation storage dams now being at or near capacity, supporting the citrus crop irrigation program and forecast crop production in marketing year (MY) 2021/22. The lifting of international border closures on December 15, 2021 is also anticipated to improve the availability of labor for the upcoming harvest commencing in May 2022, which has been a major concern for citrus producers over the previous two harvest periods.

Orange production is forecast at 535,000 metric tons (MT) in MY 2021/22, a two percent increase over the estimated MY 2020/21 crop which experienced a heavy crop load and timely rainfalls during the growing season. These conditions resulted in larger than usual fruit size, creating challenges for the export market. Exports of Australian oranges are forecast to rebound to 190,000 MT in the forecast year after a significant drop to 160,000 MT in MY 2020/21, due to these oversized fruits reducing the supply of oranges suitable for the export market. The volume of oranges for juicing is forecast to decline by 10 percent to 225,000 MT after a spike in MY 2020/21 due to not only larger juicing variety oranges but also an increase in the volume of fresh orange varieties channelled towards juicing.

Mandarin producers in Australia are enjoying favorable production conditions, similar to oranges. However, there is a greater diversity of mandarin production regions in Australia and planted area has been expanding at a greater rate than for oranges. Mandarin planted area has increased 42 percent since 2014, much of which will begin bearing fruit in the coming years, boosting production and export growth. Mandarin production is forecast to increase by six percent in MY 2021/22 to 190,000 MT and exports are forecast to reach a record 90,000 MT. Domestic consumption is expected to remain unchanged at 101,000 MT in the forecast year.

Australia is forecast to import 18,000 MT of orange juice, slightly higher than the anticipated 17,300 MT of domestic production in MY 2021/22. Domestic production is expected to be down from the large production of 19,200 MT in MY 2020/21, which was due to a large increase in supply of oranges for juicing. Orange juice exports are set to fall to a more typical level of 3,500 MT in the forecast year after a large increase to 5,000 MT in MY 2020/21. Domestic consumption is forecast to remain relatively stable at 32,000 MT despite the health consciousness triggered by the COVID-19 pandemic leading to reported increases in home consumption. However, this was countered by a decline from the food service sector due to associated lockdowns.

## **FRESH ORANGES**

### **Industry Background**

The major orange production areas in Australia are in the southern temperate climate regions with good availability and 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 north west of Victoria mostly between Mildura and Swan Hill
- Riverland - located along the Murray river in the north west of South Australia

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 burst offering high potential yield, and the low rainfall and warmer temperatures from spring to autumn minimizes risk of frosts, humidity and hail while optimizing growth rates with well managed drip irrigation and fertilizer programs.

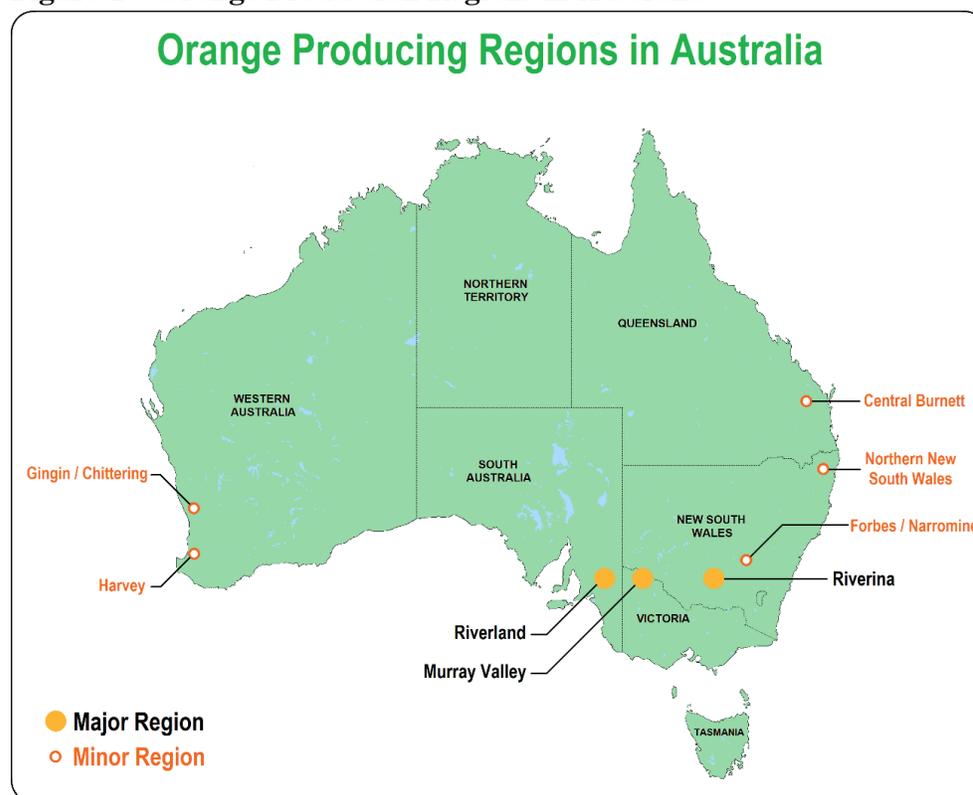
These three regions have a total orange production area of 15,537 ha, representing 89 percent of the national area. Nationally, navel oranges have a total of 11,074 ha and Valencia oranges 6,395 ha (Source: Citrus Australia – Australian Citrus Tree Census 2020). The Riverina is by far the largest producer of oranges. Around 55 percent of its total production area is Valencia and it represents 66 percent of the national area of juicing oranges. There are other small orange producing areas 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) which extends the domestic season of available fresh oranges to consumers.

Citrus Australia carries out an annual tree census, the first of which was in 2014. The results from 2014 to 2020 show a significant increase in plantings of navel and red flesh orange varieties over the five-year period in the major producing regions in Australia. But the impact on overall production as the trees transition from non-bearing to mature production will take some time yet.

Around 93 percent of the non-juicing orange varieties are navel oranges and for the purpose of this report all non-juicing oranges will be referred to as navel oranges. The majority of the juicing varieties (86 percent) are Valencia orange varieties and for the purpose of this report all juicing varieties will be referred to as Valencia oranges.

**Figure 1 – Orange Production Regions in Australia**

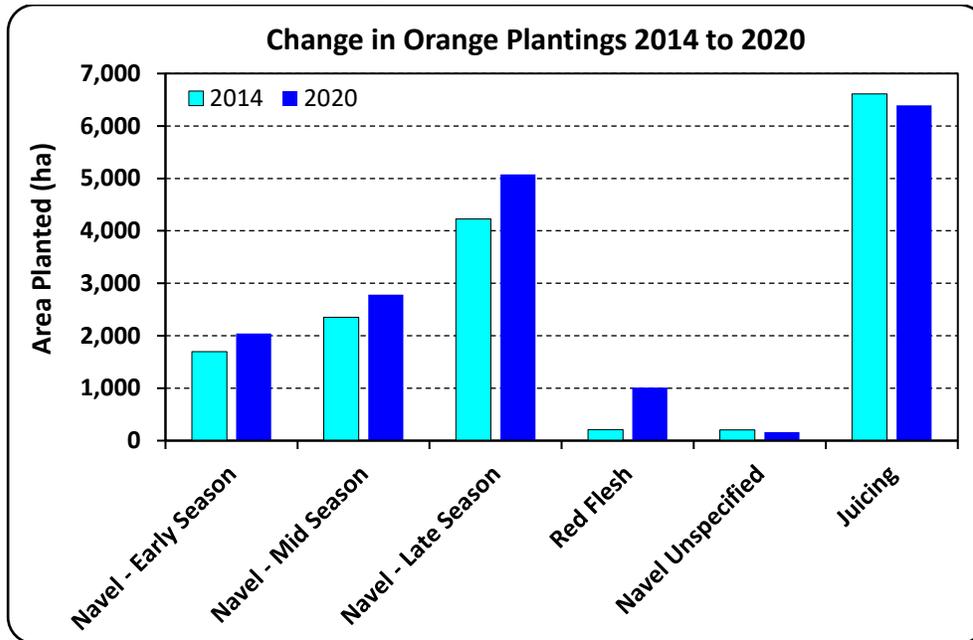


Source: Citrus Australia / Australian Bureau of Statistics Census / FAS/Canberra

The total planted area of navel and Valencia oranges has increased by 14 percent from 15,307 hectares (ha) in 2014 to 17,469 ha in 2020. During this period, the area of Valencia oranges has declined by three percent and the area of navel oranges has increased by 27 percent. Of the growth in planted area of navel oranges, late season and red flesh varieties had had the largest growth of 847 ha (20 percent) and 796 ha (374 percent) respectively (see Figure 2).

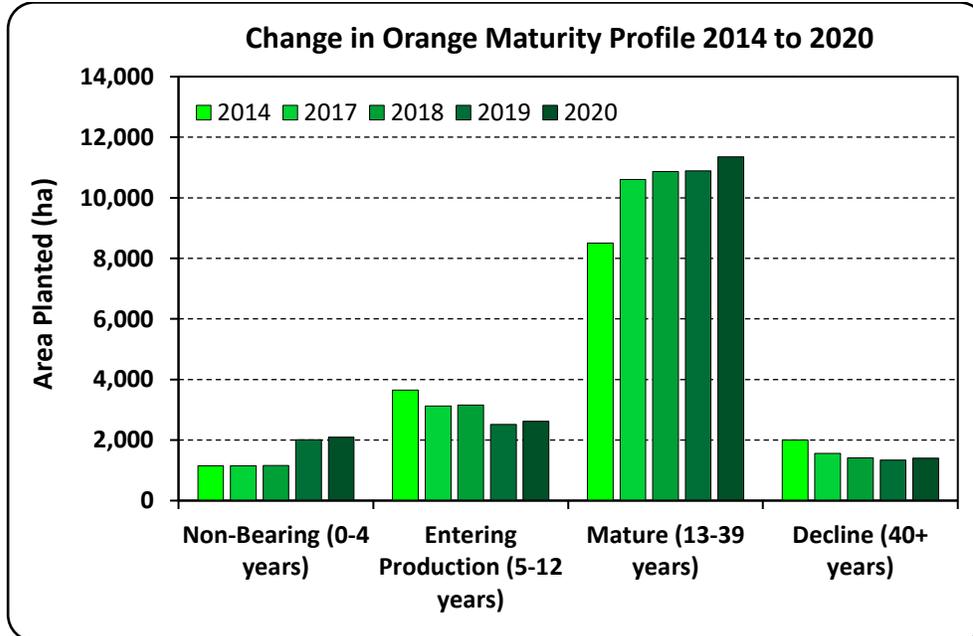
Interestingly, although there was a 14 percent growth in orange planted area from 2014 to 2020, the tree age profile shows that there had been a large growth in total area of mature (13 – 39 years) trees, a significant decline in the area of trees entering production (5 – 12 years), but an increase in the area of non-bearing (0 – 4 years) trees (see Figure 3). This indicates that there is an expectation of further increases in mature orange trees over the coming years, but the rate of increase will decline compared to recent past years. The uplift in the area of non-bearing trees in both 2019 and 2020 of around 83 percent compared to 2014 indicates that there is a degree of confidence in the future of the industry.

**Figure 2 – Change in Orange Plantings 2014 to 2020**



Source: Citrus Australia / Horticulture Innovation Australia

**Figure 3 – Change in Orange Maturity Profile 2014 to 2020**



Source: Citrus Australia / Horticulture Innovation Australia

## **Production**

FAS/Canberra forecasts fresh orange production of 535,000 MT in MY 2021/22 (April 2022 to March 2023), a two percent increase on the downward revised MY 2020/21 estimate of 525,000 MT. This increase is largely related to increased tree plantings over recent years. This is supported by above average rainfalls in irrigation water catchment areas in two successive years (2020 and 2021), which has led to ample water availability for the forecast MY 2021/22 crop.

As previously mentioned, although the overall number of orange trees is increasing, the tree age profile shows a four percent increase in mature trees from 2019 to 2020, and a similar trend is anticipated in 2021, influencing production in the forecast year. However, the forecast increase in production is only half this rate due to MY 2020/21 having oversized fruit. It is anticipated that overall fruit size will be smaller in MY 2021/22 and at a more optimal range for export.

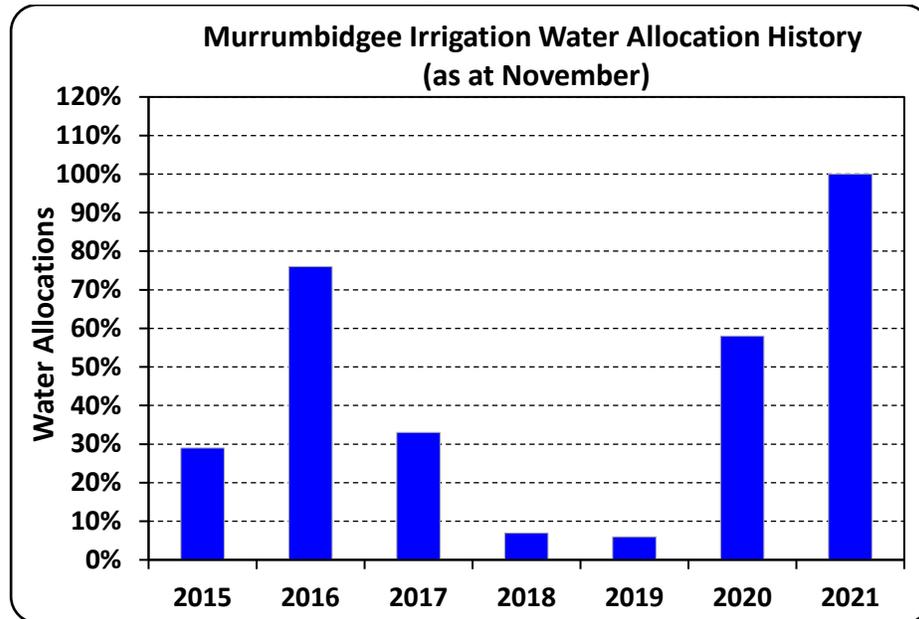
Beyond the increasing orange tree planted area and mature trees in production, three additional factors are expected to support the forecast increase in production in MY 2021/22:

- 1) Ample irrigation water availability
- 2) Forecast of average rainfall in the middle phase of the growing season
- 3) Expectation of an improved harvest labor availability

An important aspect for growers is the availability of irrigation water which in turn influences the price of traded water. In years of low water allocation causing inadequate supply to meet their citrus tree requirements, growers procure water on a temporary traded water market and prices can be high. For fresh orange production, growers can typically cope with low water availability and are able to pay to procure high priced traded water as occurred in recent drought years. However, for the lower value juicing oranges, when traded water prices are high some growers will limit irrigation water applications at the detriment to orange yields. After two years of above average rainfalls in the eastern states, irrigation water storage dams are at or near capacity. For the Murrumbidgee Valley irrigation system, which supplies the Riverina region where around 66 percent of the nation's juicing oranges are grown, water allocations as at November 2021 reached 100 percent of water entitlements for the first time in many years (see Figure 4). While temporary traded water prices in the Murrumbidgee Valley irrigation system reached over AU\$500 (US\$355) per million liters (ML) in 2018 and 2019 during the drought years of very low water allocations, they are now well below AU\$100 (US\$71) per ML. In the current circumstance, it is expected that irrigation of citrus trees will be optimized by growers and will not be a limiting factor to production.

The Bureau of Meteorology has forecast the likelihood of average rainfall in January to March 2022 (see Figure 5). This coincides with the mid growing period of fresh orange production areas. This is expected to reduce the likelihood of oversized oranges being produced as occurred in MY 2020/21. The expectation of typical fruit size will increase the quantity of fresh oranges that meet the size range suitable for export markets compared to the previous year.

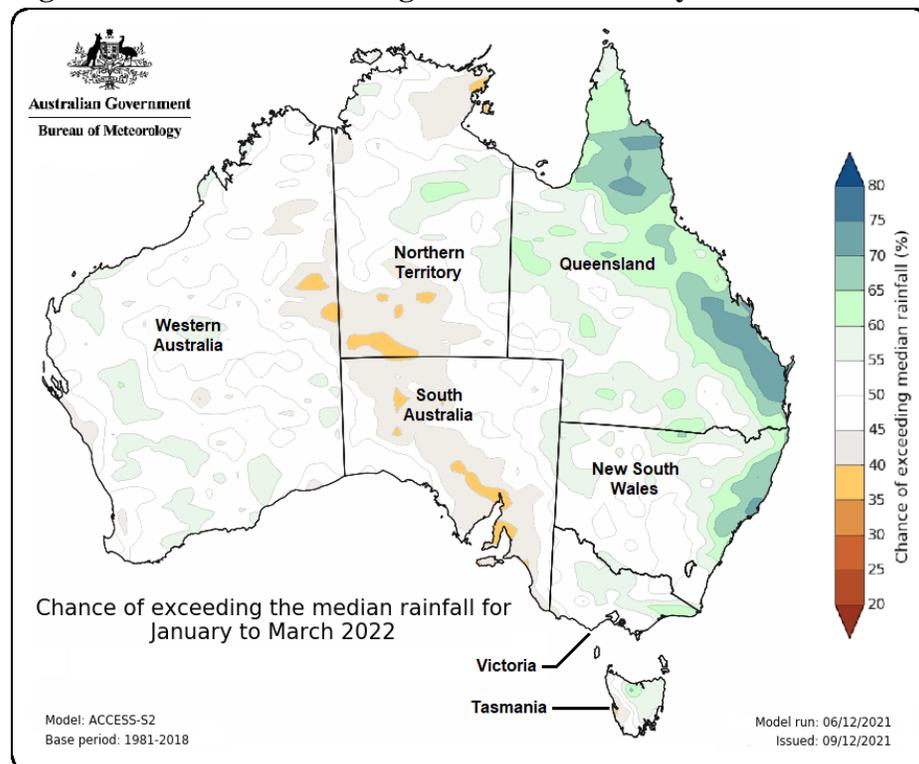
**Figure 4 – Murrumbidgee Irrigation Water Allocation History – as at November**



Source: Victoria Department of Environment Land Water and Planning / NSW Department of Planning Industry and Environment

Notes: Goulburn and Murray Vic system allocations are High Reliability Water Shares  
NSW Murray system allocations are General Security

**Figure 5 – Forecast of Average Rainfall – January 2022 to March 2022**



Source: Bureau of Meteorology

Australia has confirmed that it will commence opening up its international borders on December 15, 2021. This includes double COVID-19 vaccinated working holiday visa holders being allowed to enter Australia without the previous mandatory 14-day hotel quarantine period. The decline in working holiday visa holders in Australia during the COVID-19 pandemic has been the largest influence on the shortfall in harvest labour. This announcement is anticipated to have a positive impact on the working holiday visa holder numbers in Australia in the coming months and contribute to alleviating the current shortfall in available harvest labour, including the forecast year for the citrus industry with the harvest beginning in May 2022.

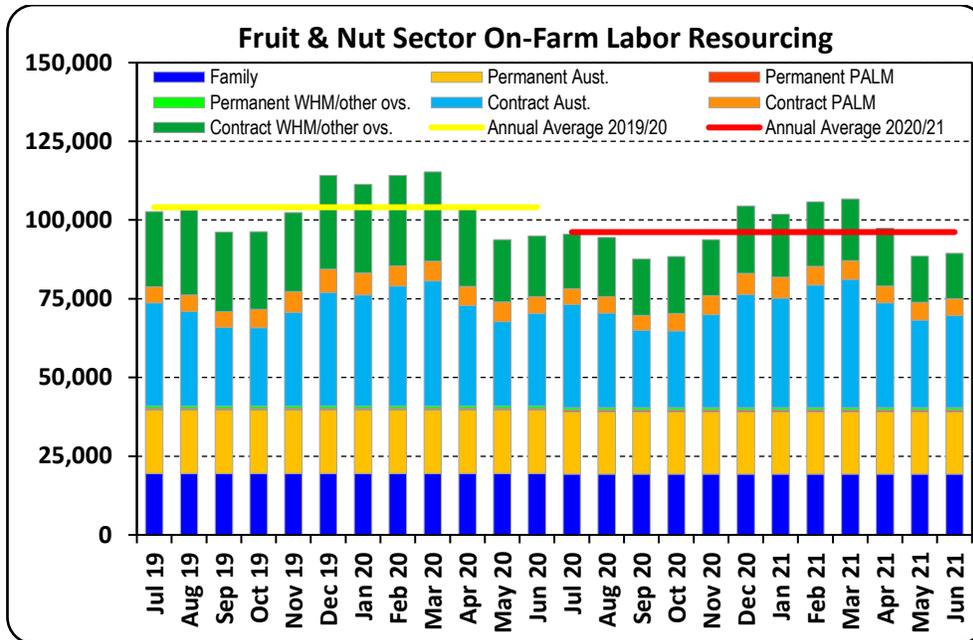
Data from the Australian Bureau of Statistics shows that for horticultural tree (fruits and nuts) farms, around 70 percent of labor requirements is met by family, permanent and contracted Australian citizens. The balance is mainly for harvest labor which is typically made up of temporary visa holders from the Pacific Islands associated with a Pacific Seasonal Worker Program and working holiday makers, typically overseas backpackers. Many of these groups had exited Australia during the COVID-19 pandemic and there is currently a much-reduced pool of labor available for harvest. The amount of labor in the horticultural tree sector fell by almost eight percent in 2020/21 (Jul 20 to Jun 21) compared to the prior 2019/20 year which was largely unaffected by the pandemic (see Figure 6). This decline was mainly due to a 28-percent reduction in working holiday makers and a six percent decline in numbers from the Pacific Seasonal Worker Program. This decline was due to working holiday makers leaving Australia to returning home during the pandemic and very few new arrivals into Australia due to its international border closure during this period. This reduced labor force reportedly had an impact on the horticultural sector causing an extended harvest period and with this an overall reduction in fruit quality.

During the pandemic the Federal Government's first initiative was to extend the visas of those in the Pacific Seasonal Worker Program by 12 months to partly mitigate the reduction in the pool of harvest labor available. Along with the Federal Government, State governments had also implemented measures to allow those in the Pacific Seasonal Worker Program to enter Australia during the international border closure, with some on-farm quarantine procedures instead of the typical hotel quarantine period. These measures were clearly helpful with only a six percent decline in labor from the Pacific Seasonal Worker Program compared to a 28 percent decline in working holiday makers.

Australia and the United Kingdom (UK) are in the process of negotiating a free trade agreement (FTA) and reached an in-principle-agreement in June 2021. As part of this the government has established a new Agricultural Worker visa which commenced on September 30, 2021. It will be rolled out as a pilot starting in December 2021 through to the end of March 2022. It is expected to be open to all eligible applicants from April 2022. It is anticipated that it will reduce limitations and facilitate an increase in working holiday makers to Australia. With the staged opening up of Australia's international borders commencing on December 15, 2021, including working holiday visa holders, this is anticipated to

contribute towards an increase in harvest labor for the upcoming MY 2021/22, partially alleviating the current shortfall.

**Figure 6 – Fruit & Nut Sector On-Farm Labor Resourcing**



Source: Australian Bureau of Statistics  
 Notes: WHM = Working Holiday makers  
 PALM = Pacific Australia Labor Mobility

The FAS/Canberra orange production estimate for MY 2020/21 has been revised down to 525,000 MT from the official USDA estimate of 535,000 MT. The timely rainfalls received during the growing period in MY 2020/21, as previously mentioned, produced large fruit size less suited to the export market. The shortage of available harvest labor extended the harvest period which contributed to the large fruit size and to a smaller extent left some fruit unpicked.

**Consumption**

FAS/Canberra forecasts domestic consumption of fresh oranges in MY 2021/22 to increase to 135,000 MT from a downward revised 130,000 MT in MY 2020/21. The forecast increase is driven in part by an increase in production but also a trend back towards pre-pandemic consumption levels which were at around 140,000 MT in MY 2016/17 and MY 2017/18.

Consumption for processing is forecast to decline to 225,000 MT in MY 2021/22 from an estimated 250,000 MT in MY 2020/21. This decline is back towards a more typical level expected after a very high estimated level in MY 2020/21 which was driven by large fruit size produced in that year of not only juicing varieties but also fresh varieties. The oversized fresh oranges did not meet export

requirements of Australia's major trading partners resulting in an oversupply on the domestic market, some of which were channelled towards juicing.

The FAS/Canberra MY 2020/21 orange consumption estimate is revised down to 130,000 MT, some 10,000 MT lower than the official USDA estimate. This is largely driven by extended COVID-19 related lockdown periods in Victoria and New South Wales, the two most populated states of Australia, which limited consumption likely to be associated with the likes of school lunches and was not fully offset via increased home consumption.

## **Trade**

### Exports

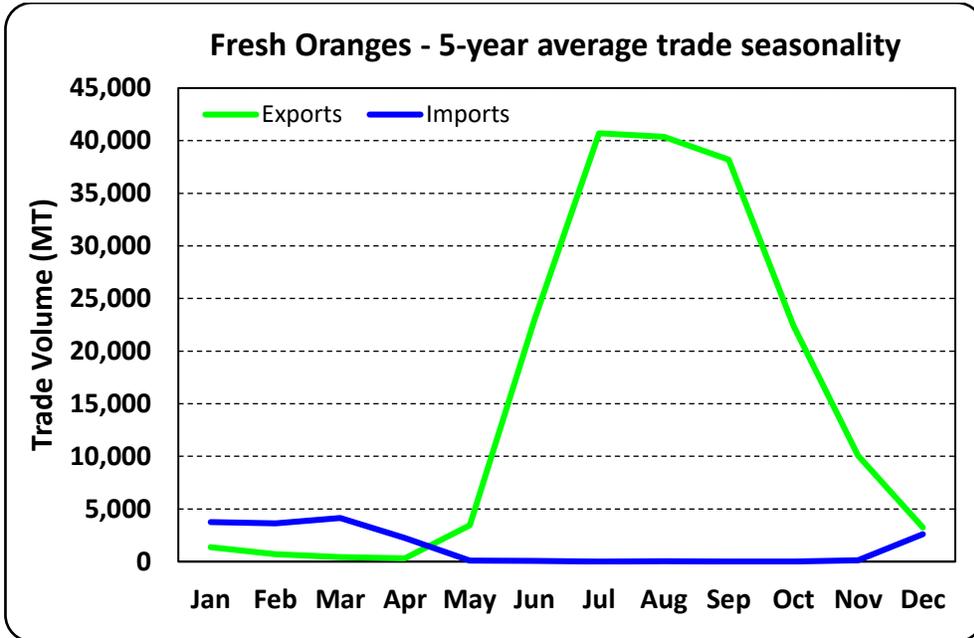
FAS/Canberra forecasts fresh orange exports of 190,000 MT in MY 2021/22, a 30,000 MT increase over the MY 2020/21 estimate of 160,000 MT. This is a return to recent past levels after exports of 181,000 MT in MY 2019/20.

Exports are largely influenced by production and quality. In seasons where overall quality is low, a larger proportion of fresh oranges are downgraded for juicing, reducing the available fresh orange supply for the export and domestic markets. Also, in low quality seasons there is typically a reduced volume of fresh oranges suitable for the export market, increasing the supply for fresh domestic consumption. With international borders opening up to non-Australian citizens in December in New South Wales and in Victoria, the two largest fresh orange producing states, it will offer the opportunity to improve the availability of harvest labor leading up to the start of harvest in May 2022 for the MY 2021/22 (April 2022 to March 2023) season. Although not expected to fully alleviate the harvest labor shortage in the forecast year, it is anticipated to significantly improve the timeliness of harvest and minimise the reduction in fruit quality to improve the available supply of fresh oranges suitable for the export market.

Exports of Australian oranges are highly seasonal, with a small volume of exports in May from smaller production regions in the northern parts of Australia, followed by the commencement of significant volumes beginning in June as harvest in the three major producing regions commences (see Figure 7). 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, and also counter-seasonal northern hemisphere countries.

The major export destinations for Australian oranges are Japan, China and Hong Kong, typically accounting for around 60 percent of overall exports (see Figure 8). Australia exports fresh oranges to over 35 nations with most of the larger export destinations in the Asian region.

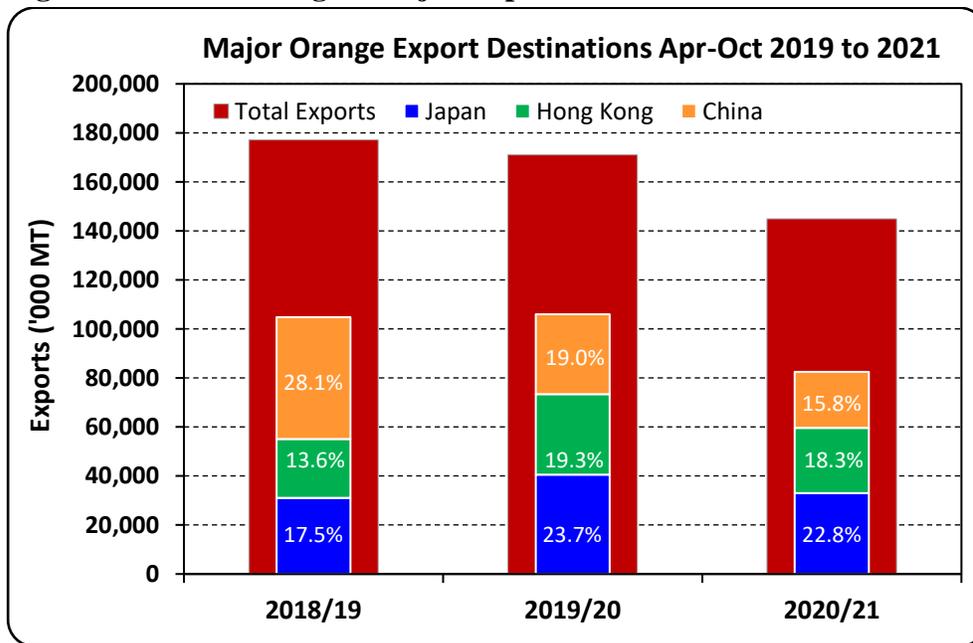
**Figure 7 – Seasonality of Australian Fresh Orange Trade**



Source: Australian Bureau of Statistics

Japan is the largest export destination, typically with a relatively stable volume from year to year of around 35,000 MT, but rose to almost 42,000 MT in MY 2019/20. Japan is on track for a lower level in MY 2020/21 but still higher than past typical results.

**Figure 8 – Fresh Orange – Major Export Destinations**

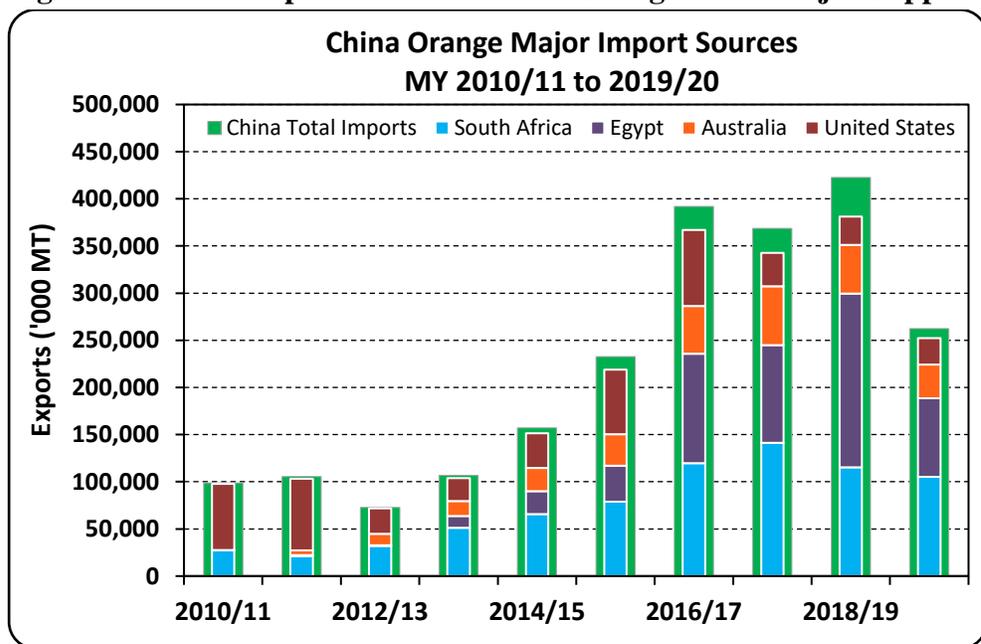


Source: Australian Bureau of Statistics

Total Chinese imports of oranges over the last decade has increased by four-fold, but declined by 38 percent in MY 2019/20 from a peak of 420,000 MT in the prior year (see Figure 9). The four key suppliers to China are South Africa, Egypt, Australia and the United States, who have consistently represented 90 to 99 percent of imports. In MY 2019/20 supply from Egypt to China fell to less than half that of the prior year, even though Egypt’s overall exports had increased by 22 percent. For MY 2020/21 in the April to October period China’s overall imports fell by a further nine percent from the same time in the previous year.

China has rapidly expanded its orange production over recent years and the industry is reportedly near saturation evidenced by declining domestic prices. In conjunction with this, the MY 2019/20 import volume was impacted by COVID-19 related increases in freight and labor costs. Freight costs have continued to increase having a further impact on import volumes in MY 2020/21.

**Figure 9 – China Import Trends of Fresh Oranges from Major Suppliers**



Source: Trade Data Monitor

FAS/Canberra estimates MY 2020/21 orange exports at 160,000 MT, down from the official USDA estimate of 195,000 MT. Exports for April to October 2021 were 144,990 MT and this period on average accounts for over 90 percent of overall exports for the full marketing year. Based on this the full year estimate is expected to reach the revised estimate.

## TRADE ACCESS

On August 17, 2021, the U.S. Department of Agriculture’s Animal and Plant Health Inspection Service (APHIS) expanded the production areas in Australia authorized to import fresh citrus into the United States and is revising conditions under which citrus from Australia may be imported.

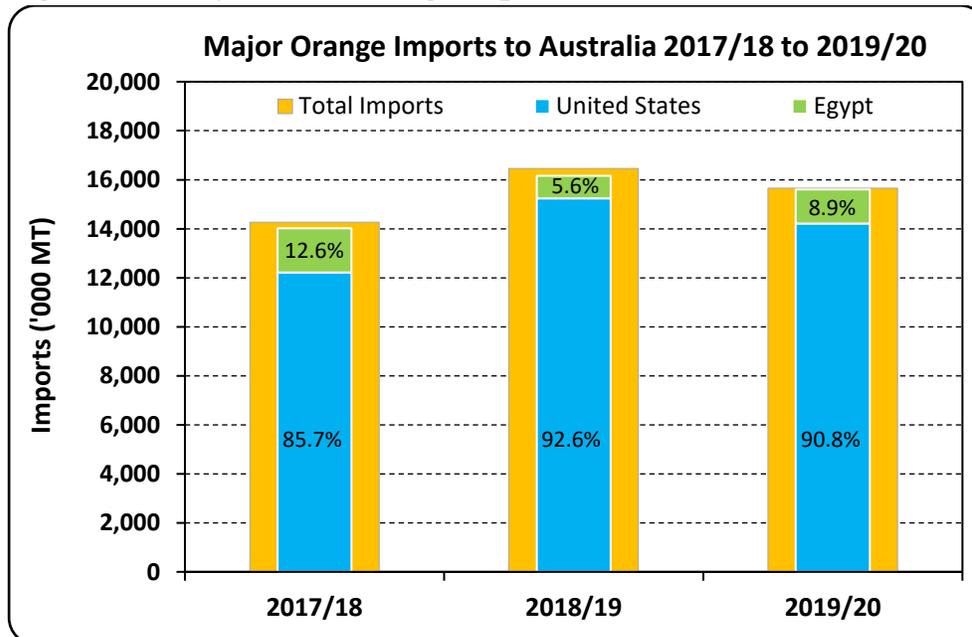
Currently, imports of fresh citrus fruit are allowed into the United States from the Riverina region of New South Wales, the Riverland region of South Australia, and the Sunraysia region in Northwest Victoria. APHIS is authorizing three additional areas of Australia to export citrus to the United States: the inland region of Queensland, the regions the compose Western Australia, and the shires of Bourke and Narromine within New South Wales.

### Imports

FAS/Canberra forecasts orange imports to remain low and stable at 15,000 MT in MY 2021/22 in line with the MY 2020/21 estimate. Imports in the previous three years have ranged from 14,000 to 16,000 MT and there are no market disruptions expected to change this trend for the forecast and estimate years.

Imports of oranges from northern hemisphere countries are counter-seasonal to domestic production and occur between December and April each year (see Figure 7). Almost all imports of navel oranges are from the United States and the balance of around 10 percent almost entirely from Egypt (see Figure 10). This balance is not expected to change significantly in the forecast year.

**Figure 10 – Major Fresh Orange Imports to Australia MY 2017/18 to 2019/20**



Source: Australian Bureau of Statistics

Oranges, Fresh Market Year Begins Australia	2019/2020		2020/2021		2021/2022	
	Apr 2020		Apr 2021		Apr 2022	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HECTARES)	17000	16800	17100	17500	0	18400
Area Harvested (HECTARES)	14900	14700	15000	15400	0	16300
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)	485	485	535	525	0	535
Imports (1000 MT)	16	16	15	15	0	15
Total Supply (1000 MT)	501	501	550	540	0	550
Exports (1000 MT)	190	181	195	160	0	190
Fresh Dom. Consumption (1000 MT)	106	125	140	130	0	135
For Processing (1000 MT)	205	195	215	250	0	225
Total Distribution (1000 MT)	501	501	550	540	0	550

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

## ORANGE JUICE

### Production

FAS/Canberra forecasts orange juice production in MY 2021/22 of 17,300 MT, a decrease of 10-percent from the upward revised MY 2020/21 estimate of 19,200 MT. Although overall orange production is set to increase slightly in the forecast year, a return to more typical seasonal conditions and fruit size is anticipated. With this, a higher volume of oranges is expected to be suitable for export in MY 2021/22, decreasing the quantity of fruit available for juicing back towards more typical levels seen in previous seasons.

The overall trend shows that there has been a 27 percent increase in navel orange planted area from 2014 to 2020, and as new plantings begin to mature, there is expected to be higher navel orange production (see Figures 2 & 3). Over the same period there has been a three percent decline in the Valencia orange planted area. Orange juice production over the longer term has generally been flat, although variations have occurred due to drought and in MY 2020/21 due to timely rainfalls producing larger than average fruit size. This decline in Valencia area is expected to be offset by the increase in navel orange production area, resulting in increased navel orange rejects being channelled to juice production.

Orange juice consumption in Australia could be negatively impacted by a new Health Star Rating (HSR) system of foods. After a five-year review of the HSR system handed down to the Australian and New Zealand Ministerial Forum on Food Regulation on August 16, 2019, recommendations have been adopted to focus the rating system more strongly on the sugar content of foods, which will have a negative impact on the health star rating of orange juice.

The citrus industry fought for changes to the HSR which focused on sugar content and has little regard for the health benefits of natural orange juice and its contribution to the recommended daily intake of such things as Vitamin C, folate and thiamin. Industry representatives have stated that 100 percent

Australian juice, with no added sugar, would receive a HSR of 2.5 stars, from the previous 5 stars, whereas diet soft drink containing artificial sweeteners would receive 3.5 stars.

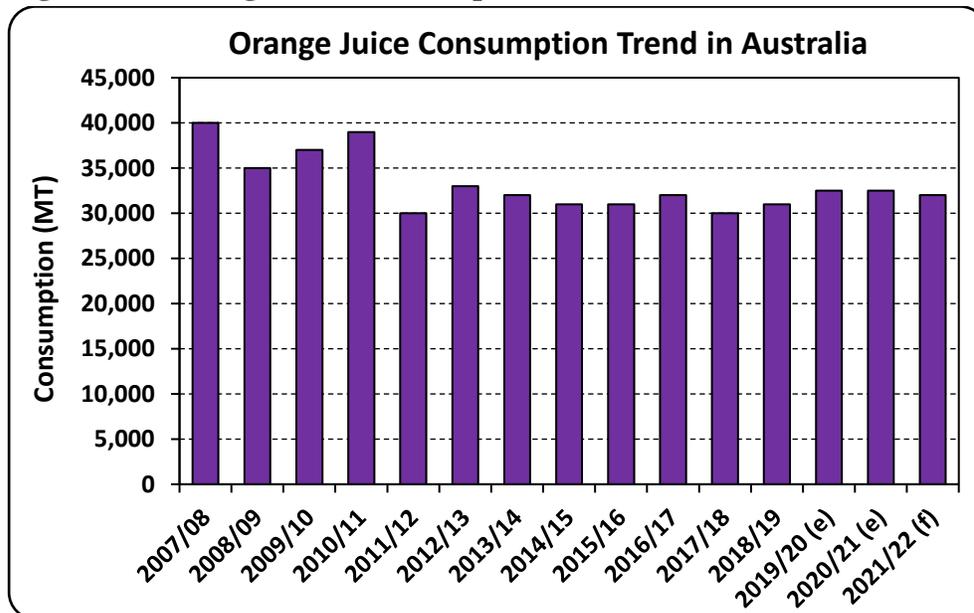
At this point it is not mandatory for the HSR to be presented on the packaging of products. Some orange juice manufacturers have indicated that they are likely to remove the HSR from their labels which may limit any potential negative impact on consumption.

The FAS/Canberra MY 2020/21 orange juice production estimate of 19,200 MT is a large upward revision from the official USDA estimate of 16,500 MT. As discussed earlier, this is largely driven by the seasonal conditions causing larger than usual fruit size which not only increased the volume of Valencia oranges produced but also decreased the volume of fresh oranges suitable for the export market, some of which was channelled towards juicing.

**Consumption**

FAS/Canberra forecasts domestic consumption of juice in MY 2021/22 of 32,000 MT, a slight decrease of 500 MT from the MY 2020/21 estimate of 32,500 MT. Industry reports strong demand was driven by consumers increased health consciousness during the COVID-19 pandemic period. However, this was partly countered by extended periods of lockdowns in Victoria and New South Wales during MY 2020/21 which reduced the opportunity for orange juice consumption via the food service sector. With an expectation of transitioning away from lockdowns, a return to a more active food service sector along with a decrease in home consumption, is anticipated to result in little overall change in orange juice consumption in the forecast year.

**Figure 11 – Orange Juice Consumption Trend in Australia**



Source: Horticulture Innovation Australia / FAS/Canberra

Note: Consumption volume is converted to a 65 degrees Brix weight basis

Over the last decade the overall trend has been a decline in orange juice consumption in Australia despite an increasing population (see Figure 11). Industry sources indicate that the decline has been associated with reconstituted orange juice consumption, while demand for 100 percent fresh orange juice has remained strong.

The FAS/Canberra MY 2020/21 orange juice consumption estimate of 32,500 MT is a small downward revision from the official USDA estimate of 33,000 MT.

## **Trade**

### Exports

Exports of orange juice by Australia are forecast by FAS/Canberra to be 3,500 MT in MY 2021/22, a reduction of 1,500 MT from the estimate for MY 2020/21 of 5,000 MT. Forecast exports are quite low at around 20 percent of production. The forecast decline in exports is back towards more typical levels in the recent past after an estimated spike in orange juice exports in MY 2020/21. This was due to a significant increase in overall citrus production combined with a decline in fresh orange exports resulting in an increased volume for juicing.

The FAS/Canberra MY 2020/21 orange juice export estimate of 5,000 MT, is an upward revision of 3,500 MT from the official USDA estimate of 1,500 MT. The export pace for the July to October 2021 period has started strongly at 1,608 MT and, on average over the last five years this period accounts for 30 percent of overall marketing year exports supporting a rise in estimated exports to 5,000 MT for the full year.

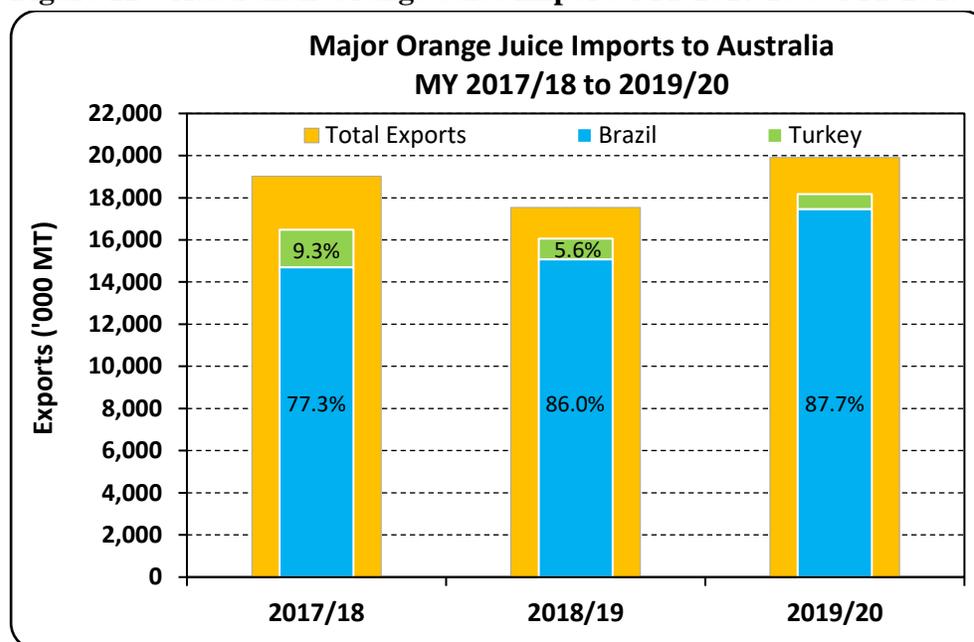
### Imports

FAS/Canberra forecasts imports of orange juice in MY 2021/22 of 18,000 MT, unchanged from the MY 2020/21 estimate. This is approximately in line with results over the previous five years ranging from 16,900 MT to 20,000 MT. These results have been relatively stable despite the influences of COVID-19 and associated lockdowns and increased freight logistics challenges and costs over the last two years.

Brazil has for many years been the major source of orange juice imports to Australia and in the last two years accounted for over 85 percent of overall imports with Turkey being the second largest source at around five percent (see Figure 12). This trend is not expected to vary greatly in the coming years. The

FAS/Canberra MY 2020/21 orange juice import estimate of 18,000 MT is unchanged from the official USDA estimate of 18,000 MT. For the July to October 2021 period of the marketing year there has been 5,445 MT of orange juice imported. Over the last five years on average this period accounted for 29 percent of full market year imports, placing the current rate of imports on track to achieve the 18,000 MT estimate.

**Figure 12 – Australian Orange Juice Imports MY 2017/18 to MY 2019/20**



Orange Juice Market Year Begins	2019/2020		2020/2021		2021/2022	
	Jul 2020		Jul 2021		Jul 2021	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Australia						
Deliv. To Processors (MT)	205000	195000	215000	250000	0	225000
Beginning Stocks (MT)	876	876	1276	1076	0	776
Production (MT)	15800	15000	16500	19200	0	17300
Imports (MT)	20000	19900	18000	18000	0	18000
Total Supply (MT)	36676	35776	35776	38276	0	36076
Exports (MT)	1400	2200	1500	5000	0	3500
Domestic Consumption (MT)	34000	32500	33000	32500	0	32000
Ending Stocks (MT)	1276	1076	1276	776	0	576
Total Distribution (MT)	36676	35776	35776	38276	0	36076
(MT)						

## FRESH TANGERINES/MANDARINS

### Industry Background

Mandarin and tangerine production regions in Australia are far more diverse than the three major orange producing 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 being 79 percent of overall area (Source: Citrus Australia – Australian Citrus Tree Census 2020).

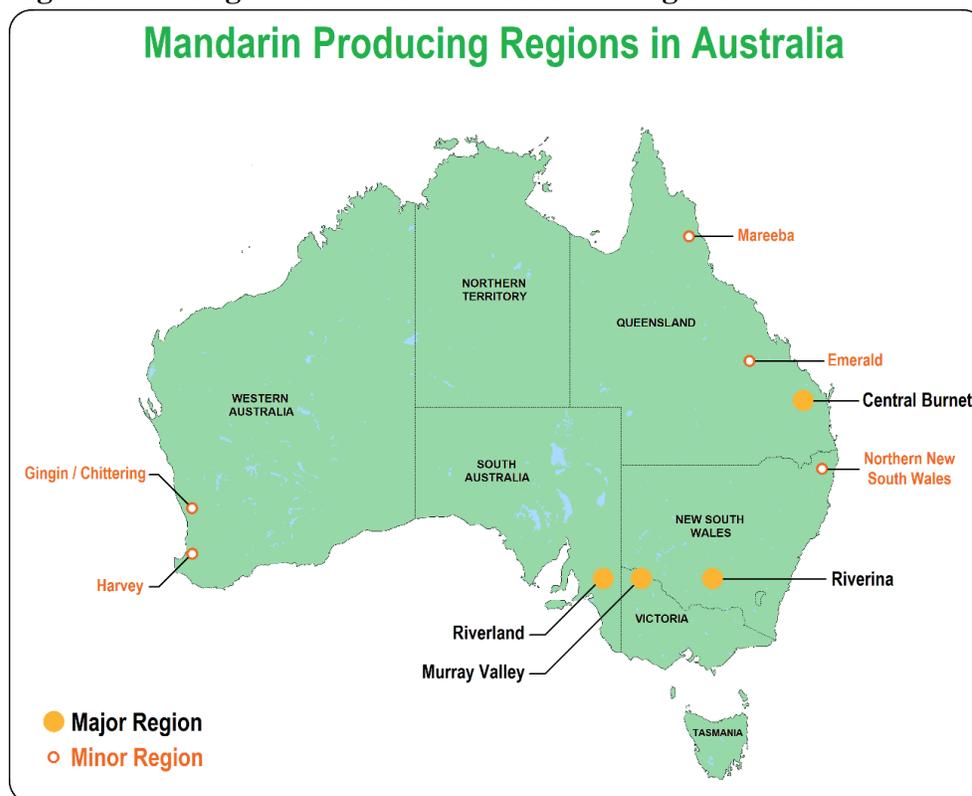
Queensland by far has the largest area of mandarin production in Australia at 4,102 ha, accounting for 53 percent of national production (see Figure 13). The next largest regions are the Riverland in South Australia with 1,459 ha (19 percent) and Murray Valley in Victoria with 1,364 ha (18 percent). The

largest mandarin producing area in Queensland is in the Central Burnett area in the south-east 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.

Over the period from 2014 to 2020, since tree census data has been collected, there has been a 42-percent increase in mandarin plantings from 5,451 ha to 7,767 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.

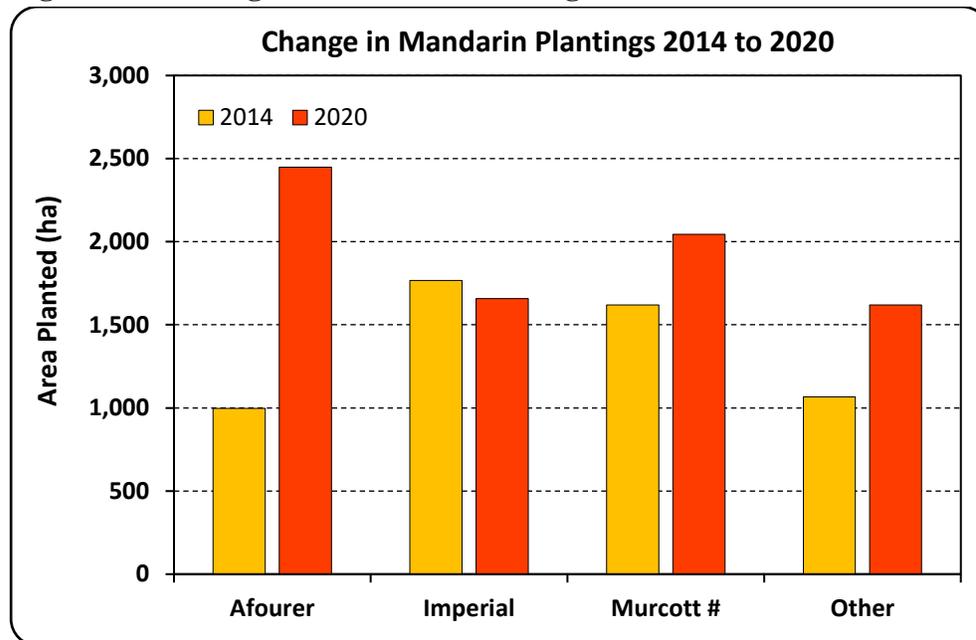
The Afourer variety has by far had the largest growth in production area over the 2014 to 2020 period, from 998 ha to 2,448 ha, now clearly the dominant variety (see Figure 14). The area of Murcott has also increased by 26 percent over the same period, while the older variety Imperial has declined slightly (six percent). In the 'other' category, there are 29 varieties including tangelos, the total planted area of which has grown by 52 percent (553 ha). The varieties in this 'other' category that have had the greatest increase in planted area are all relatively new low-seed or seedless varieties, Daisy, Phoenix and Tango.

**Figure 13 – Tangerine/Mandarin Production Regions in Australia**



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

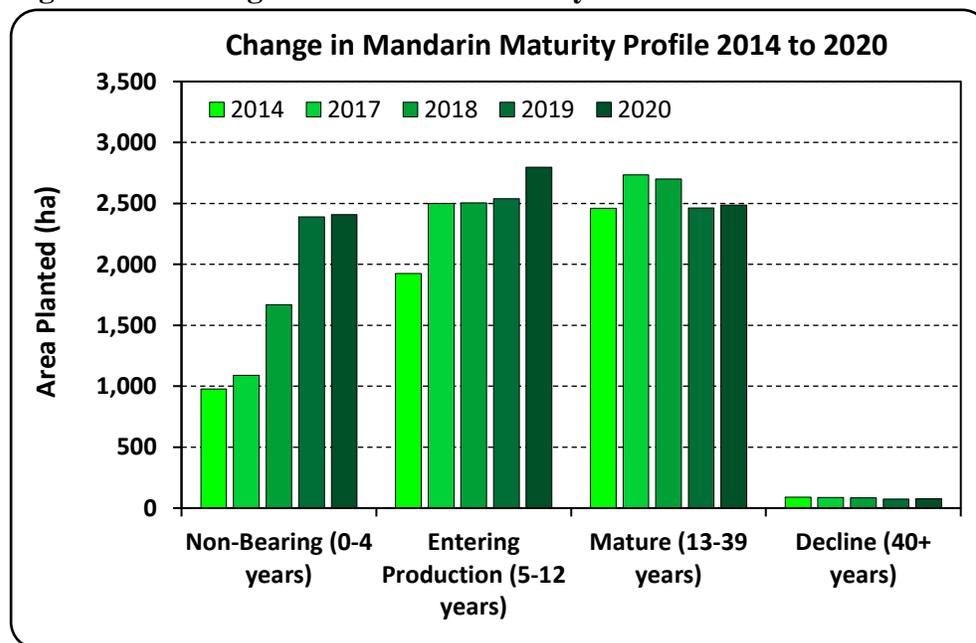
**Figure 14 – Change in Mandarin Plantings 2014 to 2019**



Source: Citrus Australia / Horticulture Innovation Australia

Notes: # Includes low seeded

**Figure 15 – Change in Mandarin Maturity Profile 2014 to 2020**



Source: Citrus Australia / Horticulture Innovation Australia

The growth in mandarin plantings that has occurred over the 2014 to 2020 period is evident from the area of non-bearing (0 – 4 years) trees increasing by over 1,400 ha to 2,408 ha, a change of 146 percent (see Figure 15). The change in the number of trees entering production (5 – 12 years) is an increase of

around 45 percent or over 872 ha. During the same period there has been no change in the area of mature (13 – 39 years) trees. With a mandarin tree age profile in 2020 of almost one-third non-bearing, the industry can expect a rapid growth in production in the coming years as these trees begin to bear fruit.

## **Production**

FAS/Canberra forecasts production of tangerines/mandarins in MY 2021/22 of 190,000 MT, a six percent increase over the MY 2020/21 estimate of 180,000 MT. This growth is predominantly related to a young tree age profile, with an increasing area of plantings entering production and boosting overall production.

Similar to orange production, mandarins can look forward to ample irrigation water availability, average rainfall expectations over the January to March 2022 period and improved harvest labor availability for the forecast year. Broadly, conditions are good in the lead up to the forecast year, albeit acknowledging that adverse weather conditions in the lead up to the start of harvest in May 2022 can have significant negative impacts on production. The forecast production at this stage primarily accounts for the increasing tree numbers and age profile.

The FAS/Canberra mandarin production estimate for MY 2020/21 is at 180,000 MT and slightly above the official USDA estimate of 175,000 MT. This has been brought about after generally good production conditions in the major producing areas.

## **Consumption**

FAS/Canberra forecasts domestic consumption of mandarins in MY 2021/22 at 101,000 MT, and in line with the MY 2020/21 estimate. The bulk of the production increase is expected to go to exports. The forecast consumption is slightly higher than the average for the past five years, but slightly lower than for MY 2014/15 and MY 2015/16. With a shift to increasing production of seedless mandarin varieties a gradual increase in consumption is anticipated.

The FAS/Canberra mandarin consumption estimate for MY 2020/21 is at 101,000 MT and slightly above the official USDA estimate of 96,000 MT. This variance is largely associated with the upward revised production estimate.

## **Trade**

### Exports

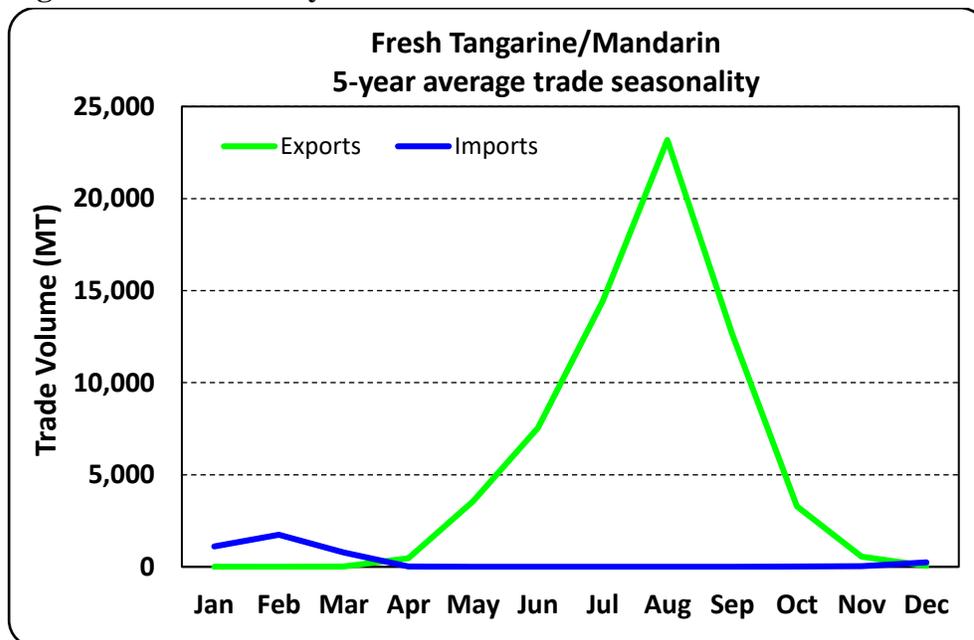
FAS/Canberra forecasts mandarin exports in MY 2021/22 of 90,000 MT from an estimated 80,000 MT in MY 2020/21. With a forecast increase in production of 10,000 MT for MY 2021/22, all of this increase is expected to go to exports. If realized, this would be a record level of exports and 3,000 MT higher than the previous record set in MY 2018/19. Based on an increase in plantings over recent years

it is anticipated that, as trees mature, production will continue to increase, and exports are expected to reach new record peaks in the coming years.

Over the last five years exports of mandarins were almost all between May and October, peaking in August (see Figure 16). With April being the start of the marketing year, exports from April to October period, typically captures 99 percent of full year results. This enables a high degree of reliability for the export estimate for MY 2020/21.

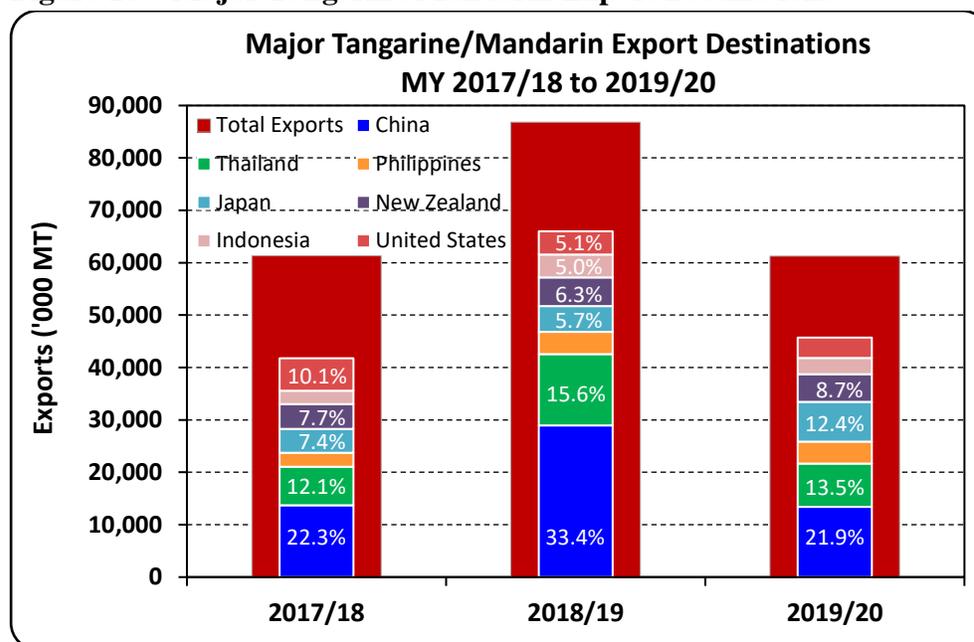
Australian export destinations of mandarins are well diversified, with the top seven nations accounting for around three-quarters of all exports (see Figure 17). China remains the major destination at around 22 percent in MY 2019/20 and the year-to-date (April to October 2021) results for MY 2020/21 show an increase in overall exports to China. In MY 2019/20, Japan increased in volume to reach the third largest destination at 12 percent overall exports, behind Thailand at 14 percent. The Philippines, New Zealand, Indonesia and United States, have each consistently accounted for five to 10 percent of overall exports over the last three years.

**Figure 16 – Seasonality of Australian Fresh Mandarin Trade**



Source: Australian Bureau of Statistics

**Figure 17 – Major Tangerine/Mandarin Export Destinations**

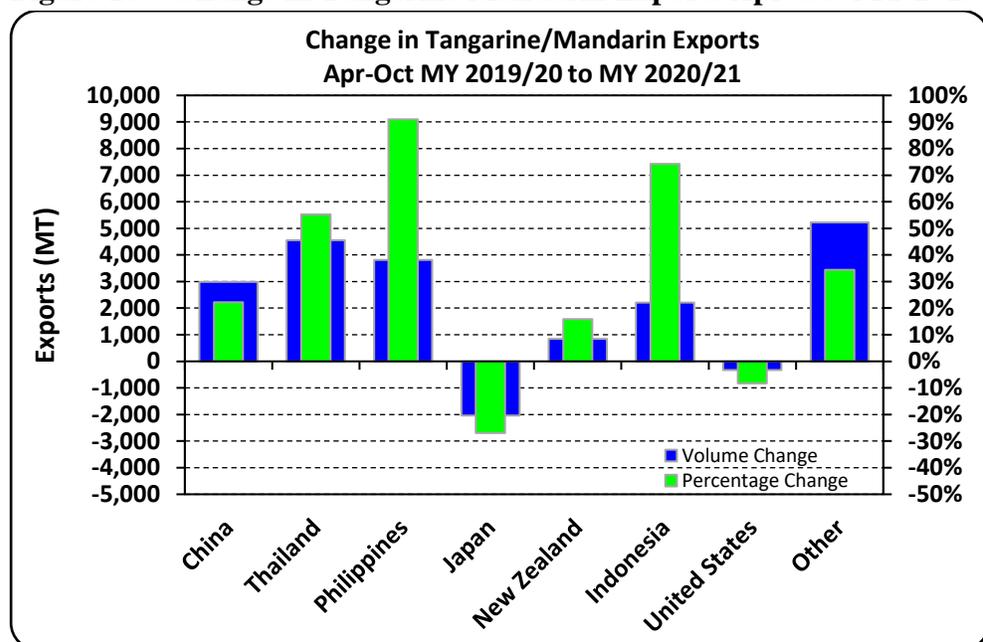


Source: Australian Bureau of Statistics

With an estimated 30 percent increase in exports from MY 2019/20 to MY 2021/22 from 61,243 MT to 80,000 MT, there have been some significant shifts in the volume of trade of mandarins to major destinations. As previously mentioned, exports to China, the largest destination, have increased by almost 3,000 MT (22 percent). Thailand was the biggest increase by volume at over 4,500 MT and the Philippines the second largest at 3,800 MT (see Figure 18). Exports to Indonesia also increased significantly with Japan the only nation to substantially decline, although remaining well above the three-year period from MY 2016/17 to MY 2018/19.

The FAS/Canberra mandarin export estimate for MY 2020/21 is in line with the official USDA estimate of 80,000 MT. Exports for April to October 2021 were 78,094 MT and this period on average accounts for 99 percent of overall exports for the full marketing year. Based on this, the full year export estimate is expected to reach near 80,000 MT.

**Figure 18 – Change in Tangerine/Mandarin Exports Apr-Oct MY 2019/20 to 2020/21**



Source: Australian Bureau of Statistics

### Imports

FAS/Canberra forecasts tangerine/mandarin imports for MY 2021/22 at 4 MT, in line with the MY 2020/21 estimate. Past import results have been stable at around 4 MT per annum. These imports are counter-seasonal to production in Australia (see Figure 16) and are used to fill low level consumer demand during this period. Imports equate to around four percent of overall domestic consumption.

Tangerines/Mandarins, Fresh Market Year Begins Australia	2019/2020		2020/2021		2021/2022	
	Apr 2020		Apr 2021		Apr 2022	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HECTARES)	7700	7500	7900	7800	0	8200
Area Harvested (HECTARES)	5400	5100	5700	5400	0	5800
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)	160	160	175	180	0	190
Imports (1000 MT)	4	3	4	4	0	4
Total Supply (1000 MT)	164	163	179	184	0	194
Exports (1000 MT)	62	61	80	80	0	90
Fresh Dom. Consumption (1000 MT)	99	99	96	101	0	101
For Processing (1000 MT)	3	3	3	3	0	3
Total Distribution (1000 MT)	164	163	179	184	0	194

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

**Attachments:**

No Attachments