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## Report Name: Citrus Annual

Country: Brazil
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Report Category: Citrus

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## Report Highlights:

The Brazilian orange crop for Marketing Year (MY) 2022/23 is forecast at 405 million $40.8-\mathrm{kg}$ boxes ( MBx ), equal to 16.52 million metric tons (MMT), a reduction of two percent relative to the current season. The forecast assumes normal weather conditions will prevail as of early-December 2022 to support fruit setting and development of citrus groves in the Sao Paulo and Minas Gerais commercial citrus belt. Total Brazilian FCOJ 65 Brix equivalent exports for MY 2022/23 are forecast at 1.04 MMT, similar to the revised figure for MY 2021/22. Note that NFC exports for MY 2021/22 are estimated at $310,000 \mathrm{MT}$, 65 Brix equivalent, an increase of 15 percent compared to the previous season, primarily to supply the U.S. market due to limited juice availability from Florida due to hurricane Ian. Stock levels for MY 2022/23 are 13,000 MT, one of the citrus industry's lowest levels ever reached.

## FRESH ORANGES

## Production

## PS\&D Tables

The following table provides revised data for Sao Paulo and total Brazilian fresh orange production, supply, and distribution (PS\&D) for Brazilian (BR) marketing years (MY, July-June) 2021/22 and 2022/23, and the initial forecast for MY 2023/24. The MY mentioned above are equivalent to U.S. MY 2020/21, 2021/22 and 2022/23, respectively.

Table 1

| Brazil: Fresh Oranges PS\&D (Jul-Jun, 1,000 ha, million trees \& million 40.8 kg <br> boxes) |  |  |  |
| :--- | ---: | ---: | ---: |
| Item/U.S. Marketing Year | US 20/21 | US 21/22 | US 22/23 |
| Item/ Brazilian Marketing Year | $\mathbf{2 0 2 1 / 2 2}$ | $\mathbf{2 0 2 2 / 2 3}$ | $\mathbf{2 0 2 3 / 2 4}$ |
| Area Planted | 604.4 | 614.1 | 614.1 |
| Sao Paulo | 379.4 | 387.1 | 387.1 |
| Others | 225.0 | 227.0 | 227.0 |
| Area Harvested | 546.1 | 546.4 | 546.4 |
| Sao Paulo | 346.1 | 344.4 | 344.4 |
| Others | 200.0 | 202.0 | 202.0 |
| Bearing Trees | 221.6 | 228.0 | 228.0 |
| Sao Paulo | 166.6 | 170.0 | 170.0 |
| Others | 55.0 | 58.0 | 58.0 |
| Non-Bearing Trees | 28.0 | 34.3 | 34.3 |
| Sao Paulo | 23.0 | 29.3 | 29.3 |
| Others | 5.0 | 5.0 | 5.0 |
| Total Trees | 249.6 | 262.3 | 262.3 |
| Total Production | 359.7 | 415.0 | 405.0 |
| Sao Paulo | 263.0 | 314.0 | 305.0 |
| Others | 96.7 | 101.0 | 100.0 |
| Exports | 0.0 | 0.0 | 0.0 |
| Imports (total Brazil) | 0.6 | 0.2 | 0.2 |
| Domestic Consumption | 112.3 | 114.2 | 113.2 |
| Delivered to processors | 248.0 | 301.0 | 292.0 |
| Sao Paulo (FCOJ + NFC exports) | 224.0 | 277.0 | 268.0 |
| Others | 24.0 | 24.0 | 24.0 |

*Note: There is a one-year lag between the BR MY and the U.S. MY. For example, BR MY 2022023/24 is equivalent to U.S. MY 2022/23. To ensure data continuity, the current Brazilian MY 2023/24 will be referred to as U.S. MY 2022/23 throughout this report.

## General

The Agricultural Trade Office (ATO)/Sao Paulo forecasts the total Brazilian orange crop for MY 2022/23 (July/June) at 405 million 40.8-kg boxes (MBx), equivalent to 16.52 million metric tons (MMT), a reduction of 10 MBx compared to the current crop (MY 2021/22). The forecast assumes that normal weather conditions will prevail as of early-December 2022 to support fruit setting and development for the citrus groves in the Sao Paulo and Minas Gerais commercial citrus.

The commercial area in the state of Sao Paulo and the western part of Minas Gerais should account for 305 MBx (12.44 MMT), a drop of three percent vis-à-vis the revised figure for MY 2021/22 (314 MBx or 12.81 MMT ). Good weather conditions triggered a good first blossoming in August with excellent fruit setting in irrigated citrus groves and non-irrigated citrus groves, mainly in the southern part of the citrus belt in Sao Paulo. A broader and excellent second blossoming occurred in October in most of the citrus belt. However, weather conditions (warm temperatures) were not adequate to sustain a robust fruit setting, damaging the production potential from the second blossoming.

A third blossoming might still occur in December if favorable weather conditions prevail. Note that the increased infection from greening has also been negatively affected by citrus trees (see Disease subsection for further information).

Production from other states is projected at 100 MBX (4.08 MMT), similar to MY 2021/22 (101MBx or 4.12 MMT). Overall, it is still too early to project total orange production for MY 2022/23. More accurate numbers should be available during the first quarter of 2023.

The ATO/Sao Paulo revised the estimate for the Brazilian orange crop for MY 2021/22 to 415 MBx (16.93 MMT), virtually unchanged from the previous estimate, based on the first crop estimate update released by the Defense Fund for Citriculture (Fundecitrus) in September 2022 and the Brazilian Institute for Geography and Statistics (IBGE). Harvest in Sao Paulo and western Minas Gerais commercial citrus area started in May/June 2022. It should be extended through February/March 2023, given the orange juice processors will likely attempt to maximize crushing to the fullest.

On September 12, Fundecitrus released the first crop estimate updated for the 2022/23 citrus production for the commercial area in the state of Sao Paulo and the western part of Minas Gerais, placing production at 314.09 MBx , a drop of 2.86 MBx relative to the initial forecast released in May 2022 ( 316.95 MBx ), due to lower rainfall volumes compared to historical averages which negatively affected the fruit size/weight for early orange varieties.

On December 12, Fundecitrus will release the second updated crop estimate for the 2022/23 citrus production for the commercial area in Sao Paulo and the western part of Minas Gerais. On September 12, Fundecitrus released the first crop estimate updated for the 2022/23 citrus production for the commercial area in the state of Sao Paulo and the western part of Minas Gerais Production from other states is estimated at 101 MBx (4.12 MMT), an increase of 3.6 MBx from the previous estimate.

The Sao Paulo State Institute of Agricultural Economics (IEA) released its September 2022 crop survey for the 2022 crop (BR MY 2022/23). The Sao Paulo state crop, including commercial and noncommercial areas, is estimated at 311.5 MBx (12.71 MMT), an increase of five percent compared to the
previous crop year (296.1 MBx or 12.08 MMT). Note that IEA considers the entire state of Sao Paulo and all varieties of oranges. Simultaneously, the Agricultural Trade Office's (ATO) estimates follow the Fundecitrus methodology, which includes the commercial area of the state plus the western part of Minas Gerais and the major citrus varieties for juice processing.

## Area, Tree Inventory, and Yields

The Brazilian agricultural yield for the MY 2022/23 crop is projected at 1.78 boxes/tree, a drop of two percent compared to the current crop ( 1.82 boxes/tree), assuming normal weather conditions as of earlyDecember 2022.

Total Brazilian tree inventory for MY $22 / 23$ is projected at 262.3 million trees, unchanged relative to the previous season, and the area planted for oranges is projected at 614,100 hectares (ha). Sao Paulo is the only state that compiles trees planted and tree inventory data. According to the September 2022 crop survey IEA released, Sao Paulo has 172.04 million orange trees ( 18.03 million non-bearing trees and 154.01 million bearing trees). ATO/Sao Paulo estimates stable area and tree population for other producing states based on the Brazilian Institute of Geography and Statistics (IBGE).

## Disease

According to the 2022 greening survey conducted by Fundecitrus, 48.66 million trees, or 24.42 percent, of the trees in the commercial area of the state of Sao Paulo and the western part of Minas Gerais are affected by greening. This figure shows an increase of nine percent in the greening infection relative to the 2021 greening survey ( 22.37 percent). However, if the number of citrus trees eradicated in 2021 due to greening (approximately 6.4 million trees) was included in the survey, greening infection would rise to 27.50 percent.

Favorable weather and the high density of citrus trees have supported the spread of the psyllid Diaphorina Citri, the vector of the bacteria that causes greening, in the groves. In addition, Fundecitrus found that in most of the citrus groves, the infected trees have not been eradicated and the control of the vector has been insufficient with the use repetitive use of pesticides with the same active principle, longer than recommended intervals for pesticide spray and insufficient sprays in adult and high-density citrus groves. The link below shows the latest information on citrus greening as reported by Fundecitrus: https://www.fundecitrus.com.br/comunicacao/revista_detalhes/revista-citricultor---edicao58/78

Citrus greening was identified in Brazil in 2004, and no definitive cure has been found. The graph below shows the incidence of greening in the Sao Paulo and western Minas Gerais commercial area since 2012. No surveys were conducted in 2013 and 2014 due to a lack of funding.

Figure 1

## Incidence of Greening in Commercial Citrus



Source: Fundecitrus
The 2022 Fundecitrus citrus variegated chlorosis (CVC) disease survey reports that the level of infection reached 0.80 percent or roughly 154,640 trees. Losses associated with CVC remain very low given that the infected trees are mostly in the initial phases of the disease. The graph below shows the incidence of CVC in the Sao Paulo and western Minas Gerais commercial area since 2012. No surveys were conducted in 2013 and 2014 due to a lack of funding.

Figure 2

## Incidence of CVC in Commercial Citrus



Source: Fundecitrus

Citrus canker infection in 2022 is estimated at 18.76 percent of the trees in the commercial area of Sao Paulo and Minas Gerais, or 36.26 million trees, similar to the infection level from 2020 ( 17.26 percent), according to the latest Fundecitrus survey. Higher infection is related to higher rainfall volumes which favor the spread of the disease. However, it does not pose a risk to the groves since risk mitigation practices have been adopted in recent years. Note that the formerly rigid control of eradicating the
affected and neighboring trees was loosened up and replaced by risk mitigation practices. The graph below shows the incidence of CVC in the Sao Paulo and western Minas Gerais commercial areas since 2016.

Figure 3

# Incidence of Canker in Commercial Citrus 



Source: Fundecitrus

## Producer Prices

The Orange Index price series is published by the University of Sao Paulo's Luiz de Queiroz College of Agriculture (ESALQ) for both the domestic fresh market and products delivered to orange juice processing plants in the state of Sao Paulo. Prices for the fresh market are for fruit on the tree.

Spot prices for fruit for processing during 2022 ranged between $\mathrm{R} \$ 27.50$ and 32.50 /box, with an upward trend as of August. On average, contracted prices for fruit for processing were $\mathrm{R} \$ 32.00 / \mathrm{box}$. Prices for fruit for the fresh market have escalated since August due to tight fruit availability and increased competition with fruit for orange juice processing. Post contacts report that orange juice processors have been negotiating the extension of current contracts to the next crop, given that fruit availability will likely be tight.

Table 2

Orange Prices paid by Sao Paulo Industry - Spot Market (Pera, Natal, Valencia varieties, average prices in Reais - $\mathrm{R} \$, 40.8 \mathrm{~kg}$ box, fruits delivered to the processing plant).

| Month | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Jan | 25.84 | 17.66 | 21.77 | 20.96 | 25.29 | 29.08 |
| Feb | 21.98 | 16.70 | 21.19 | 21.20 | 24.87 | 29.58 |
| Mar | 21.39 | 16.24 | 21.58 | 20.48 | 24.89 | 29.75 |
| Apr | 17.60 | 16.33 | 20.61 | 20.80 | 25.88 | 27.83 |
| May | 16.52 | 17.27 | 18.21 | 20.92 | 26.17 | 27.44 |
| Jun | 16.11 | 19.28 | 19.13 | 22.35 | 28.93 | 28.52 |
| Jul | 18.55 | 20.55 | 19.78 | 22.63 | 29.16 | 29.38 |
| Aug | 19.30 | 22.00 | 20.01 | 22.94 | 29.17 | 31.01 |
| Sep | 19.13 | 22.48 | 19.67 | 23.61 | 28.83 | 31.30 |
| Oct | 19.15 | 22.29 | 20.05 | 23.91 | 28.84 | 32.50 |
| Nov | 18.96 | 22.51 | 20.27 | 24.47 | 28.98 | 31.89 |
| Dec | 18.64 | 22.15 | 20.64 | 25.10 | 28.94 | -- |

Source: CEPEA/ESALQ.
Table 3

| Orange Prices received by Producers in the Domestic Fresh Market (Pera Variety, average prices in Reais - R\$, 40.8 kg box, fruits on the tree). |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Month | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Jan | 37.53 | 20.00 | 30.42 | 30.53 | 39.03 | 36.99 |
| Feb | 43.91 | 22.51 | 40.66 | 33.06 | 37.69 | 39.87 |
| Mar | 41.86 | 29.02 | 42.23 | 35.35 | 38.71 | 42.85 |
| Apr | 30.41 | 29.83 | 31.80 | 32.47 | 38.11 | 42.01 |
| May | 21.15 | 26.33 | 21.17 | 26.09 | 34.42 | 37.39 |
| Jun | 17.14 | 25.66 | 18.24 | 25.26 | 32.64 | 34.81 |
| Jul | 16.15 | 26.80 | 18.06 | 26.83 | 34.74 | 34.28 |
| Aug | 16.40 | 29.08 | 18.26 | 30.01 | 39.67 | 37.20 |
| Sep | 17.34 | 31.39 | 19.51 | 32.78 | 45.30 | 39.75 |
| Oct | 19.27 | 32.83 | 22.99 | 38.89 | 49.88 | 40.81 |
| Nov | 19.97 | 30.24 | 28.04 | 43.35 | 45.01 | 42.08 |
| Dec | 19.94 | 27.16 | 28.22 | 40.52 | 38.80 | -- |
| Source: CEPE |  |  |  |  |  |  |

## Exchange Rate

The table below shows the official exchange rate as released by the Brazilian Central Bank from 2016 through 2022.

Table 4

| Exchange Rate (R\$/US\$1.00 - official rate, last day of period) |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Month | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ |
| January | 4.04 | 3.13 | 3.16 | 3.65 | 4.25 | 5.48 | 5.36 |
| February | 3.98 | 3.10 | 3.24 | 3.74 | 4.50 | 5.53 | 5.14 |
| March | 3.56 | 3.17 | 3.32 | 3.90 | 5.20 | 5.70 | 4.74 |
| April | 3.45 | 3.20 | 3.48 | 3.94 | 5.43 | 5.40 | 4.92 |
| May | 3.60 | 3.26 | 3.74 | 3.94 | 5.43 | 5.23 | 4.73 |
| June | 3.21 | 3.30 | 3.86 | 3.83 | 5.48 | 5.00 | 5.24 |
| July | 3.24 | 3.13 | 3.75 | 3.76 | 5.20 | 5.12 | 5.19 |
| August | 3.24 | 3.15 | 4.14 | 4.14 | 5.47 | 5.14 | 5.18 |
| September | 3.25 | 3.17 | 4.00 | 4.16 | 5.64 | 5.44 | 5.41 |
| October | 3.18 | 3.27 | 3.72 | 4.00 | 5.77 | 5.64 | 5.26 |
| November 1/ | 3.40 | 3.26 | 3.86 | 4.22 | 5.33 | 5.62 | 5.38 |
| December | 3.47 | 3.31 | 3.87 | 4.03 | 5.20 | 5.58 |  |
| Source: Brazilian Central Bank (BACEN) $1 /$ November 2022 refers to November 28. |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

## Consumption

ATO/Sao Paulo forecasts total Brazilian orange consumption for MY 2022/23 at 113.2 MBx (4.62 MMT), relatively similar vis-à-vis the current season (114.2 MBx or 4.66 MMT). These figures include actual domestic consumption plus losses from the natural drop, harvesting, transportation, and packing.

Note that fruit delivered to processors for "not from concentrate" (NFC) orange juice production for the domestic market will not be included as fresh oranges consumption but as "Delivered to Processors for NFC Production."

Fresh domestic consumption estimates are calculated as the difference between production estimates and the volume of oranges delivered to processors for FCOJ and NFC produced for domestic consumption and export.

## Trade

## Exports

Total fresh orange exports for MY 2022/23 are projected at virtually zero, like fresh orange export estimates for MY 2021/22, according to updated information from Trade Data Monitor, LLC. Marshall

Islands, Liberia, Panama, and Honk Kong imported insignificant volumes of fresh oranges during the July-2022 - October 2022 period.

The table below shows fresh orange exports (NCM 0805.10.00) by destination, according to the Trade Data Monitor, LLC, based on data from the Secretariat of Foreign Trade (Secex) for BR MY 2019/20, 2020/21 and 2021/22 (July-June), as well as for BR 2020/21, 2021/22 and 2022/23 (July-October).

Table 5

| Brazilian Fresh Orange Exports (MT and US\$ 1,000 FOB) |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Country |  | Jul 2019 - Jun 2020 |  | Jul 2020 - Jun 2021 | Jul 2021 - Jun 2022 |  |  |
|  | Value | Quantity | Value | Quantity | Value | Quantity |  |
| Russia | - | - | 89 | 186 | 70 | 145 |  |
| Marshall Islands | 40 | 49 | 41 | 52 | 53 | 60 |  |
| Panama | 33 | 42 | 39 | 47 | 44 | 52 |  |
| Liberia | 30 | 42 | 34 | 46 | 42 | 48 |  |
| Hong Kong | 29 | 39 | 26 | 37 | 29 | 33 |  |
| Malta | 16 | 21 | 16 | 22 | 19 | 22 |  |
| Singapore | 16 | 20 | 13 | 18 | 14 | 16 |  |
| Greece | 12 | 16 | 11 | 16 | 13 | 17 |  |
| Canada | 18 | 39 | 138 | 259 | 12 | 3 |  |
| Bahamas | 10 | 11 | 7 | 10 | 11 | 12 |  |
| Others | 1,726 | 3,357 | 3,922 | 8,243 | 70 | 83 |  |
| Total | 1,930 | 3,636 | 4,336 | 8,936 | 377 | 491 |  |

Source: Trade Data Monitor (LLC). NCM 0805.10.00. Numbers may not add due to rounding.

Table 6

| Brazilian Fresh Orange Exports (MT and US\$ 1,000 FOB) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | Jul 2020 - Oct 2020 |  | Jul 2021 - Oct 2021 |  | Jul 2022 - Oct 2022 |  |
|  | Value | Quantity | Value | Quantity | Value | Quantity |
| Marshall Islands | 13 | 19 | 15 | 19 | 20 | 21 |
| Liberia | 10 | 15 | 13 | 17 | 16 | 18 |
| Panama | 14 | 18 | 15 | 19 | 18 | 18 |
| Hong Kong | 9 | 14 | 8 | 11 | 13 | 13 |
| Malta | 5 | 8 | 7 | 9 | 7 | 8 |
| Singapore | 5 | 7 | 3 | 5 | 7 | 7 |
| Cyprus | 5 | 7 | 3 | 5 | 3 | 7 |
| Bahamas | 2 | 3 | 4 | 5 | 6 | 5 |
| China | 2 | 3 | 2 | 2 | 3 | 4 |
| Greece | 4 | 7 | 5 | 6 | 3 | 4 |
| Others | 3,440 | 5,448 | 84 | 162 | 29 | 19 |
| Total | 3,511 | 5,549 | 159 | 260 | 127 | 124 |

[^0]
## Imports

Total fresh orange imports for MY 2022/23 are projected to stable at 0.2 MBx ( $8,160 \mathrm{MT}$, according to updated information from Trade Data Monitor, LLC. Egypt, Uruguay, and Spain were the major countries of origin for imported oranges from July 2021 - June 2022.

The table below shows fresh orange imports (NCM 0805.10.00) by country of origin, according to the Trade Data Monitor, LLC, based on data from the Secretariat of Foreign Trade (Secex) for BR MY 2019/20, 2020/21 and 2021/22 (July-June), as well as for BR 2020/21, 2021/22 and 2022/23 (JulyOctober).

Table 7

| Brazilian Fresh Orange Imports (MT and US\$ 1,000 FOB) |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Country | Jul 2019 - Jun 2020 | Jul 2020 - Jun 2021 |  | Jul 2021 - Jun 2022 |  |  |  |
|  | Qalue | Quantity | Value | Quantity | Value | Quantity |  |
| Egypt | 60 | 75 | 2,574 | 3,552 | 7,308 | 11,815 |  |
| Uruguay | 5,940 | 8,888 | 2,878 | 3,870 | 4,571 | 7,632 |  |
| Spain | 13,246 | 15,535 | 11,951 | 11,914 | 5,654 | 6,798 |  |
| Argentina | 1,495 | 2,397 | 1,190 | 1,652 | 1,142 | 1,700 |  |
| Chile | 887 | 986 | 351 | 324 | 78 | 91 |  |
| Total | 21,628 | 27,881 | 18,944 | 21,312 | 18,753 | 28,036 |  |

Source: Trade Data Monitor (LLC). NCM 0805.10.00. Numbers may not add due to rounding.

Table 8

| Brazilian Fresh Orange Imports (MT and US\$ 1,000 FOB) |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Country | Jul 2020 - Oct 2020 | Jul 2021 - Oct 2021 |  | Jul 2022 - Oct 2022 |  |  |  |
|  | Value | Quantity | Value | Quantity | Value | Quantity |  |
| Uruguay | 1,647 | 2,312 | 2,507 | 3,895 | 1,930 | 2,852 |  |
| Argentina | 900 | 1,215 | 645 | 1,059 | 1,138 | 1,594 |  |
| Chile | 268 | 255 | 78 | 91 | 411 | 427 |  |
| Spain | - | - | - | - | 4 | 5 |  |
| Total | 2,815 | 3,782 | 3,230 | 5,045 | 3,483 | 4,878 |  |
|  |  |  |  |  |  |  |  |

Source: Trade Data Monitor (LLC) NCM 0805.10.00. Numbers may not add due to rounding.

## Production, Supply, and Distribution

Table 9

| Oranges, Fresh Market Year Begins Brazil | 2020/2021 |  | 2021/2022 |  | 2022/2023 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jul 2021 |  | Jul 2022 |  |  |  |
|  | USDA <br> Official | New Post | $\begin{aligned} & \text { USDA } \\ & \text { Official } \end{aligned}$ | New Post | USDA <br> Official | New Post |
| Area Planted (HECTARES) | 604400 | 604400 | 614100 | 614100 | 0 | 614100 |
| Area Harvested (HECTARES) | 546100 | 546100 | 546400 | 546400 | 0 | 546400 |
| Bearing Trees (1000 TREES) | 221600 | 221600 | 228000 | 228000 | 0 | 228000 |
| Non-Bearing Trees (1000 TREES) | 28000 | 28000 | 34300 | 34300 | 0 | 34300 |
| Total No. Of Trees (1000 TREES) | 249600 | 249600 | 262300 | 262300 | 0 | 262300 |
| Production (1000 MT) | 14676 | 14676 | 16908 | 16932 | 0 | 16524 |
| Imports (1000 MT) | 24 | 24 | 24 | 8 | 0 | 8 |
| Total Supply (1000 MT) | 14700 | 14700 | 16932 | 16940 | 0 | 16532 |
| Exports (1000 MT) | 0 | 0 | 8 | 0 | 0 | 0 |
| Fresh Dom. <br> Consumption (1000 MT) | 4582 | 4582 | 4643 | 4659 | 0 | 4619 |
| For Processing (1000 MT) | 10118 | 10118 | 12281 | 12281 | 0 | 11913 |
| Total Distribution (1000 MT) | 14700 | 14700 | 16932 | 16940 | 0 | 16532 |
|  |  |  |  |  |  |  |
| (HECTARES) ,(1000 TREES) ,(1000 MT) |  |  |  |  |  |  |

## ORANGE JUICE

## Production

## PS\&D Tables

The following tables provide revised data for Sao Paulo and total Brazilian orange juice production, supply, and distribution (PS\&D) for Brazilian (BR) marketing years (MY, July-June) 2021/22 and $2022 / 23$, and the initial forecast for MY 2023/24. The MY mentioned above are equivalent to U.S. MY 2020/21, 2021/22 and 2022/23, respectively.

The tables include NFC production for exports converted to Frozen Concentrated Orange Juice (FCOJ), 65 Brix equivalent. The following conversion factor: 1 metric ton of FCOJ 65 Brix equals 5.4 to 5.6 metric tons of NFC 11.6 Brix.

Table 10

| Brazil: FCOJ PS\&D (Jul-Jun, Million 40.8 kg boxes, TMT, 65 degrees brix) |  |  |  |
| :--- | ---: | ---: | ---: |
| Item/U.S. Marketing Year | US 20/21 | US 21/22 | US 22/23 |
| Item/ Brazilian Marketing Year | $2021 / 22$ | $2022 / 23$ | $2023 / 24$ |
| Delivered to Processors | 248 | 301 | 292 |
| Sao Paulo (FCOJ + NFC exports) | 224 | 277 | 268 |
| Others | 24 | 24 | 24 |
| Beginning Stocks - Total | 151 | 15 | 14 |
| Total Production | 944 | 1134 | 1119 |
| Sao Paulo FCOJ | 536 | 695 | 680 |
| Sao Paulo NFC (FCOJ equiv) | 312 | 343 | 343 |
| Others | 96 | 96 | 96 |
| Total Supply | 1095 | 1149 | 1133 |
| Exports | 1010 | 1060 | 1040 |
| Sao Paulo FCOJ | 710 | 720 | 700 |
| Sao Paulo NFC (FCOJ equiv) | 270 | 310 | 310 |
| Others FCOJ | 30 | 30 | 30 |
| Domestic Consumption | 70 | 75 | 80 |
| Ending Stocks - Total | 15 | 14 | 13 |
| Total Distribution | 1095 | 1149 | 1133 |

* Note: There is a one-year lag between the BR MY and the U.S. MY. For example, BR MY 2022023/24 is equivalent to U.S. MY 2022/23. To ensure data continuity, the current Brazilian MY 2023/24 will be referred to as U.S. MY 2022/23 throughout this report.


## General

ATO/Sao Paulo forecasts the total Brazilian FCOJ 65 Brix equivalent production for MY 2022/23 at 1.12 million metric tons (MMT), a drop of one percent vis-avis the orange juice production for MY 2021/22, due to expected lower availability of fruit for processing. The Sao Paulo industry is expected to process 268 MBx of oranges for orange juice production ( 180 MBx for FCOJ and 88 MBx for NFC production), accounting for 1.02 MT of juice ( 680,000 MT and $343,000 \mathrm{MT}$ of FCOJ and NFC converted to FCOJ equivalent, respectively). Other producing states should deliver 24 MBx , accounting for $96,000 \mathrm{MT}$ of juice.

Post estimates an increase of ten percent in fruit for NFC processing ( 88 MBx or 3.59 MMT ) for MY 2021/22 to supply the U.S. market, given that hurricane Ian has hugely devasted the Floridian crop. The total Brazilian FCOJ 65 Brix equivalent production estimate for MY 2021/22 has been revised downward to 1.13 MMT , a decrease of $4,000 \mathrm{MT}$ compared to the previous estimate due to the expected lower industrial yield than previously estimated. Orange juice figures include NFC production for exports converted to FCOJ 65 Brix equivalent. There is no official estimate for NFC supply and demand in Brazil.

## Consumption

ATO/SaoPaulo projects domestic FCOJ equivalent consumption for MY 2022/23 at 80,000 MT, 65 Brix, up 5,000 MT compared to MY 2021/22 (75,000 MT), given that orange juice consumption, especially NFC has steadily increased in Brazil. Note that NFC consumption converted to FCOJ equivalent is included in the orange juice statistic.

## Trade

ATO/Sao Paulo projects total Brazilian FCOJ 65 Brix equivalent exports for MY 2022/23 at 1.04 MMT, similar to the revised number for MY 2021/22 (1.06 MMT), given that fruit availability for processing will likely remain tight. The Sao Paulo industry should contribute 1.01 MT, 65 Brix equivalent. Total exports for MY 2021/22 were revised to 1.06 MMT, an increase of 20,000 MT compared to the previous estimate, based on updated information from the industry. Note that NFC exports for MY 2021/22 are estimated at 310,000 MT, 65 Brix equivalent, an increase of 15 percent compared to the previous season, mainly to supply the U.S. market due to limited juice availability from Florida due to hurricane Ian.

Overall, cumulative orange juice exports during July-October 2022 are 388,022 MT, 65 Brix, FCOJ equivalent, according to the Trade Data Monitor, LLC, an increase of 26,622 MT vis-à-vis to the same period in 2021 ( 361,400 MT, 65 Brix, FCOJ equivalent), especially due to increased volume of NFC exports. Cumulative exports to the United States during July-October 2022 increased over 60 percent to 112,432 MT, 65 Brix, relative to 69,945 MT during July-October 2022, pushed by the continuous decrease in the Floridian production. The European Union remains the largest export destination of Brazilian orange juice, with approximately 70 percent of total exports.

The tables below show fresh orange juice exports (NCM 2009.11.00, 2009.12.00, and 2009.19.00) by country of destination, according to the Trade Data Monitor, LLC, based on data from the Secretariat of Foreign Trade (Secex) for BR MY 2019/20, 2020/21 and 2021/22 (July-June), as well as for BR 2020/21, 2021/22 and 2022/23 (July-October).

The "others" category includes both FCOJ and NFC exports. Post considers the average monthly price by country of destination for the "others" category as a criterion to distinguish between FCOJ and NFC exports.

Table 11

| Frozen/Unfermented Orange Juice Exports (MT and US\$ 1,000 FOB) |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Country | Jul 2019 - Jun 2020 | Jul 2020 - Jun 2021 |  | Jul 2021 - Jun 2022 |  |  |
|  | Value | Quantity | Value | Quantity | Value | Quantity |
| Belgium | 271,180 | 165,417 | 163,043 | 120,876 | 178,862 | 113,584 |
| China | 62,443 | 45,218 | 68,783 | 57,237 | 86,658 | 76,504 |
| United States | 27,946 | 19,069 | 61,411 | 45,792 | 65,720 | 39,208 |
| Netherlands | 87,820 | 62,938 | 66,174 | 48,333 | 54,399 | 36,785 |
| Japan | 100,694 | 58,009 | 41,598 | 28,775 | 40,412 | 23,903 |
| Israel | 8,863 | 7,332 | 11,170 | 9,419 | 15,444 | 10,163 |
| Australia | 21,948 | 12,712 | 22,999 | 16,151 | 16,374 | 9,868 |
| Austria | 17,219 | 10,782 | 1,019 | 888 | 14,436 | 8,482 |
| Chile | 8,822 | 5,534 | 7,434 | 4,613 | 12,032 | 7,192 |
| Turkey | 4,322 | 3,314 | 3,999 | 2,652 | 4,859 | 3,283 |
| Others | 71,892 | 43,212 | 72,491 | 47,297 | 67,479 | 39,499 |
| Total | 683,149 | 433,537 | 520,121 | 382,033 | 556,675 | 368,471 |

Source: Trade Data Monitor (LLC). NCM 2009.11.00 Numbers may not add due to rounding.
Table 12

| Frozen/Unfermented Orange Juice Exports (MT and US\$ 1,000 FOB) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | Jul 2020 - Oct 2020 |  | Jul 2021 - Oct 2021 |  | Jul 2022 - Oct 2022 |  |
|  | Value | Quantity | Value | Quantity | Value | Quantity |
| Belgium | 50,498 | 40,004 | 61,124 | 41,616 | 60,272 | 34,247 |
| China | 15,699 | 14,033 | 24,184 | 24,841 | 21,855 | 22,288 |
| United States | 7,272 | 6,421 | 21,952 | 13,901 | 28,854 | 15,981 |
| Netherlands | 30,489 | 21,979 | 23,822 | 16,641 | 22,593 | 13,508 |
| Japan | 18,382 | 12,971 | 15,065 | 9,429 | 17,214 | 9,413 |
| Australia | 9,304 | 6,758 | 6,638 | 4,236 | 6,642 | 3,659 |
| Chile | 1,422 | 945 | 4,166 | 2,484 | 4,135 | 2,307 |
| Israel | 3,021 | 2,445 | 6,122 | 4,644 | 2,401 | 1,424 |
| Italy | 2,340 | 1,634 | 1,152 | 784 | 1,586 | 855 |
| Indonesia | 812 | 415 | 1,732 | 833 | 1,340 | 659 |
| Others | 17,425 | 11,839 | 18,898 | 11,608 | 14,700 | 8,174 |
| Total | 156,665 | 119,444 | 184,853 | 131,017 | 181,594 | 112,515 |

Source: Trade Data Monitor (LLC). NCM 2009.11.00 Numbers may not add due to rounding.

Table 13
Brazilian Orange Juice Exports, Not Frozen and Brix Under 20 (NCM 2009.1200, MT and US\$ 1,000 FOB)

| Country | Jul 2019 - Jun 2020 |  | Jul 2020 - Jun 2021 |  | Jul 2021 - Jun 2022 |  |
| :--- | ---: | ---: | :---: | ---: | ---: | ---: |
|  | Value | Quantity | Value | Quantity | Value | Quantity |
| United States | 140,358 | 437,326 | 159,118 | 494,789 | 228,200 | 634,590 |
| Belgium | 178,466 | 495,518 | 176,190 | 581,006 | 152,114 | 440,969 |
| Netherlands | 124,646 | 381,418 | 124,946 | 375,435 | 131,121 | 390,551 |
| Austria | 16,745 | 44,728 | - | - | 7,615 | 22,398 |
| Spain | 2,545 | 9,288 | 7,181 | 24,838 | 1,898 | 5,582 |
| China | 317 | 377 | 4,571 | 5,423 | 4,507 | 5,352 |
| Chile | 994 | 955 | 1,284 | 1,324 | 1,834 | 1,964 |
| Israel | - | - | 343 | 818 | 164 | 343 |
| Paraguay | 71 | 80 | 231 | 301 | 264 | 288 |
| Canada | - | - | 5 | 1 | 316 | 163 |
| Others | 793 | 1,461 | 789 | 1,095 | 699 | 724 |
| Total | 464,936 | $1,371,151$ | 474,657 | $1,485,030$ | 528,732 | $1,502,924$ |

Source: Trade Data Monitor (LLC). NCM 2009.12.00 Numbers may not add due to rounding.

Table 14

| Brazilian Orange Juice Exports, Not Frozen and Brix Under 20 (NCM 2009.1200, MT and US\$ $\mathbf{1 , 0 0 0}$ FOB) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | Jul 2020 - Oct 2020 |  | Jul 2021 - Oct 2021 |  | Jul 2022 - Oct 2022 |  |
|  | Value | Quantity | Value | Quantity | Value | Quantity |
| United States | 40,969 | 129,584 | 63,397 | 184,938 | 113,314 | 299,846 |
| Belgium | 57,183 | 200,858 | 51,590 | 154,632 | 72,206 | 195,637 |
| Netherlands | 42,538 | 127,338 | 41,923 | 125,450 | 40,000 | 116,305 |
| Spain | 1,434 | 5,681 | 1,898 | 5,582 | 1,446 | 3,614 |
| Chile | 327 | 319 | 585 | 683 | 596 | 579 |
| Paraguay | 54 | 79 | 90 | 104 | 94 | 99 |
| China | 1,093 | 1,305 | 3,952 | 4,692 | 73 | 83 |
| Philippines | 59 | 54 | 46 | 50 | 58 | 69 |
| Angola | 15 | 14 | 89 | 83 | 59 | 63 |
| Malaysia | 5 | 4 | 8 | 7 | 19 | 18 |
| Others | 52 | 57 | 270 | 186 | 87 | 58 |
| Total | 143,730 | 465,293 | 163,847 | 476,407 | 227,951 | 616,371 |

[^1]Table 15

| Brazilian Orange Juice Exports, Others (MT and US\$ 1,000 FOB) |  |  |  |  |  |  |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: |
| Country |  | Jul 2019 - Jun 2020 |  | Jul 2020 - Jun 2021 | Jul 2021 - Jun 2022 |  |
|  | Value | Quantity | Value | Quantity | Value | Quantity |
| Netherlands | 310,418 | 214,394 | 230,937 | 166,847 | 275,325 | 163,639 |
| Belgium | 210,151 | 116,868 | 193,560 | 121,318 | 211,129 | 126,980 |
| United States | 108,629 | 76,183 | 77,006 | 62,595 | 69,798 | 46,595 |
| Japan | 391 | 215 | 13,388 | 10,035 | 15,887 | 9,928 |
| U.K. | 26,058 | 17,939 | 27345.824 | 19622 | 14,381 | 8,988 |
| Spain | 141.579 | 118 | 2009.908 | 1221 | 1,091 | 650 |
| Turkey | 510.359 | 358 | 2.964 | 2 | 659.168 | 356 |
| Austria | 0 | 0 | 0 | 0 | 558.567 | 329 |
| Israel | 0 | 0 | 0 | 0 | 548.569 | 323 |
| Paraguay | 150.764 | 243 | 156.91 | 236 | 170.198 | 241 |
| Others | 3,054 | 1,875 | 1,525 | 1,077 | 417.553 | 306 |
| Total | 659,503 | 428,193 | 545,931 | 382,953 | 589,965 | 358,335 |
|  |  |  |  |  |  |  |

Source: Trade Data Monitor (LLC). NCM 2009.19.00 Numbers may not add due to rounding.

Table 16

| Brazilian Orange Juice Exports, Others (MT and US\$ 1,000 FOB) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | Jul 2020 - Oct 2020 |  | Jul 2021 - Oct 2021 |  | Jul 2022-Oct 2022 |  |
|  | Value | Quantity | Value | Quantity | Value | Quantity |
| Netherlands | 74,212 | 55,372 | 99,805 | 63,617 | 121,470 | 59,570 |
| Belgium | 56,491 | 35,107 | 84,766 | 47,225 | 107,631 | 52,560 |
| United States | 29,993 | 24,723 | 30,797 | 23,613 | 79,643 | 42,049 |
| U.K. | 5,134 | 3,875 | 9,609 | 6,006 | 14,456 | 6,965 |
| Paraguay | 35 | 57 | 58.562 | 82 | 44 | 59 |
| Argentina | 20.409 | 23 | 19.766 | 23 | 40 | 47 |
| Portugal | 0.056 | 0 | 0 | 0 | 14.382 | 10 |
| France | 1.295 | 1 | 1.612 | 1 | 11.31 | 7 |
| Spain | 70.549 | 47 | 556.063 | 319 | 8.276 | 7 |
| Mexico | 0 | 0 | 1.956 | 2 | 6.205 | 5 |
| Others | 13,677 | 10,282 | 539 | 308 | 23.805 | 18 |
| Total | 179,636 | 129,487 | 226,154 | 141,196 | 323,348 | 161,297 |

[^2]
## Stocks

Ending stocks for MY 2022/23 are forecast at 13,000 MT, 65 Brix, a decrease of 1,000 MT compared to the revised figure for MY 2021/22 carry-over stocks (14,000 MT) and one of the lowest stock levels ever reached by the citrus industry. Stock figures include only stocks in the storage tanks of orange juice facilities (processing plants, port terminals, etc.) in Brazil. They do not include stocks owned by Brazilian companies abroad, e.g., in transit and port terminals in the United States, Europe, and Japan.

According to the Brazilian Association of Citrus Exporters (CitrusBR), global Brazilian orange juice inventories were 143,104 MT ( 66 Brix) on June 30, 2022, a drop of 54 percent relative to stocks on June 30, 2021 ( 316,929 MT, 66 Brix). CitrusBR forecasts carry-over stocks for June 30, 2023 at 140,000 MT similar to June 30, 2021 and the second lowest stock level since June 30, 2017. Global inventories include orange juice in storage tanks at processing plants and port terminals in Brazil and stocks abroad (vessels and port facilities worldwide).

## Production, Supply, and Distribution

This table includes NFC production for exports converted to FCOJ 65 Brix equivalent using the following conversion factor: 1 metric ton of FCOJ 65 Brix equals 5.4-5.6 metric tons of NFC 11.6 Brix.

Table 17

| Orange Juice | 2020/2021 |  | 2021/2022 |  | 2022/2023 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Market Year Begins | Jul 2021 |  | Jul 2022 |  | Jul 2023 |  |
| Brazil | USDA <br> Official | New Post | USDA <br> Official | New Post | USDA <br> Official | New Post |
| Deliv. To <br> Processors (MT) | 10118400 | 10118400 | 12280800 | 12280800 | 0 | 11913600 |
| Beginning Stocks (MT) | 151000 | 151000 | 15000 | 15000 | 0 | 14000 |
| Production (MT) | 944000 | 944000 | 1138000 | 1134000 | 0 | 1119000 |
| Imports (MT) | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Supply (MT) | 1095000 | 1095000 | 1153000 | 1149000 | 0 | 1133000 |
| Exports (MT) | 1010000 | 1010000 | 1040000 | 1060000 | 0 | 1040000 |
| Domestic Consumption (MT) | 70000 | 70000 | 75000 | 75000 | 0 | 80000 |
| Ending Stocks (MT) | 15000 | 15000 | 38000 | 14000 | 0 | 13000 |
| Total Distribution (MT) | 1095000 | 1095000 | 1153000 | 1149000 | 0 | 1133000 |
|  |  |  |  |  |  |  |
| (MT) |  |  |  |  |  |  |

## Attachments:

No Attachments


[^0]:    Source: Trade Data Monitor (LLC). NCM 0805.10.00. Numbers may not add due to rounding.

[^1]:    Source: Trade Data Monitor (LLC). NCM 2009.12.00 Numbers may not add due to rounding.

[^2]:    Source: Trade Data Monitor (LLC). NCM 2009.19.00 Numbers may not add due to rounding.

