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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) 2024/25 is forecast at 320 million 90-pound boxes (MBx) - standard reference, equivalent to 13 million metric tons (MMT), a decrease of 15 percent compared to the previous Post estimate for MY 2023/24 (378 million boxes or 15.42 MMT). Despite this decrease, Brazil's production is anticipated to recover slightly from the current season, which was the lowest since 1988. Post forecasts orange weight at 160 grams/5.64 ounces in MY 2024/25, three percent lighter than Post's previous estimate of 165 grams for MY 2023/24 due to adverse weather conditions. Post forecasts the Brazilian FCOJ 66 Brix equivalent production for MY 2024/25 at 1.0 MMT, a decrease of 3.6 percent vis-à-vis the Post estimate for MY 2023/24 (1.06 MMT), due to lower availability of oranges for processing from the current harvest. The production decrease is due to drought, extremely high temperatures, and the increase in greening incidence in the citrus belt.

## FRESH ORANGES

### PS&D Table

The following table provides revised data for Brazilian fresh orange production, supply, and distribution (PS&D) for Brazilian (BR) marketing years (MY, July-June) 2022/23, 2023/24 and forecast for 2025/26. The MY mentioned above are equivalent to U.S. MY 2022/23, 2023/24, and 2024/25 respectively.

**Table 1**

*Production, Supply and Distribution for Brazilian Fresh Oranges*

Oranges, Fresh Market Year Begins	2022/2023		2023/2024		2024/2025	
	Jul 2023		Jul 2024		Jul 2025	
Brazil	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HECTARES)	600000	6000000	590000	590000	0	590000
Area Harvested (HECTARES)	575000	575000	500000	570000	0	570000
Bearing Trees (1000 TREES)	198070	198070	197194	197194	0	193000
Non-Bearing Trees (1000 TREES)	39302	39302	41176	41176	0	43000
Total No. Of Trees (1000 TREES)	237372	237372	238370	238370	0	236000
Production (1000 MT)	15482	15469	15300	15300	0	15000
Imports (1000 MT)	27	40	32	32	0	37
Total Supply (1000 MT)	15509	15509	15332	15332	0	15037
Exports (1000 MT)	0	0	0	0	0	0
Fresh Dom. Consumption (1000 MT)	4500	4500	4400	4400	0	4300
For Processing (1000 MT)	11009	11009	10932	10932	0	10737
Total Distribution (1000 MT)	15509	15509	15332	15332	0	15037
(HECTARES) ,(1000 TREES) ,(1000 MT)						
OFFICIAL DATA CAN BE ACCESSED AT: <a href="#">PSD Online Advanced Query</a>						

Note: There is a one-year lag between the BR MY and the U.S. MY. For example, BR MY 2024/25 is equivalent to U.S. MY 2023/24. To ensure data continuity, the Brazilian MY 2025/26 will be referred to as U.S. MY 2024/25 throughout this report.

### General

Post forecasts the total Brazilian orange crop for MY 2024/25 (July/June) at 320 million 40.8-kg boxes (MBx) - standard reference equivalent to 90 pounds - or 13 million metric tons (MMT), a decrease of 15 percent compared to the previous Post estimate for MY 2023/24 (378 million boxes or 15.42 MMT). Despite this decrease, Brazil is anticipated to recover slightly from the current season's performance, which was the lowest since 1988. The next harvest (MY 2024/25) is expected to show improvement from the current season (MY 2023/24), due to expectations that La Niña will bring more regular rains and cooler temperatures.

Brazil's orange crop for MY 2023/24 will be the second smallest in thirty-five years. Post contacts affirmed that the crop faced premature flowering, which was the earliest in the history of the state of São Paulo. After rains started, there was a very hot and dry summer followed by a dry winter. Thus, fruits from the September flowering did not develop well. While there were multiple blooms, they were of low quality, leading to a much smaller harvest than expected. The last time Sao Paulo faced such a drought was in 2014. In addition, temperatures averaging two to three degrees Celsius above the ideal have also

caused damage to the crop. In fields without a robust irrigation system, the production process was significantly impacted. Irrigated areas were less impacted; however, they also struggled this season due to a decrease in well water.

Dry weather has reduced fruit production for five consecutive seasons in the citrus belt - the northwest of São Paulo and the western part of Minas Gerais, “Triângulo Mineiro”. These two areas are in the most need for further irrigation, according to Post contacts. In the future, Mato Grosso do Sul and Minas Gerais, which are irrigated, may help compensate a drop in production.

Over the past two months, rains have been more regular, improving flowering. Orange trees are perennial plants that fluctuate production between harvests. In other words, a lower harvest is typically followed by a better one and vice versa. This leads Post to expect a production recovery in MY 2024/25.

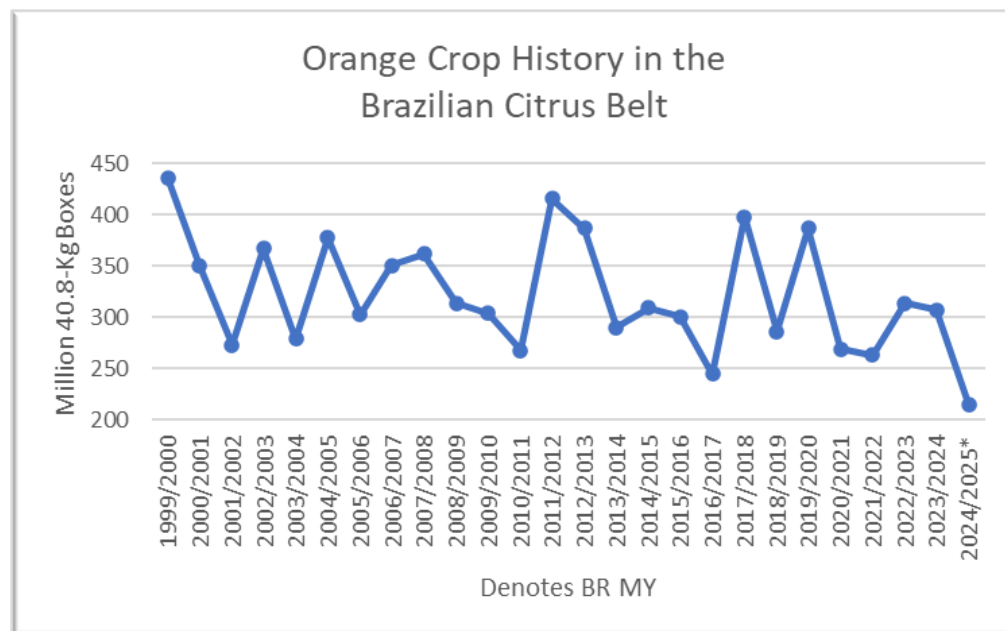
The citrus belt is estimated to produce 223.14 million 40.8-Kg/90-pound boxes (8.80 MMT) in MY 2023/2024, according to the most recent data released by the Defense Fund for Citriculture (Fundecitrus) in December 2024. This is a significant drop of 84 million boxes, equivalent to 3.42 MMT less than the previous crop (307 million boxes). Fundecitrus estimates a production of 14.79 million boxes in the Triângulo Mineiro region and 208.3 million boxes in São Paulo.

In Brazil, approximately 20 percent of orange production goes to the market as orange in natura, or fresh oranges, and 80 percent is used for juice processing. The main orange varieties that Brazil produces are Hamlim, Westin, Rubi, Valencia Americana, Seleta, Pineapple, BRS Alvorada, Pera Rio - pear orange, Valencia, “Folha Murcha” Valencia, and Natal. The citriculture chain in Brazil is highly industrialized.

The Dutch multinational banking and financial services company Rabobank projects a global supply of 1.01 million tons for the 2023/24 harvest, 26 percent less than the previous year. Global demand is also down, by 18 percent, at 1.05 million tons.

**Figure 1**

*Orange Production History in the Brazilian Citrus Belt*



Source: Fundecitrus Data, chart elaborated by FAS Brasília  
2024/2025\* (BR MY): projection

The graph above (Figure 1) shows the history of orange production in the Brazilian citrus belt, reflecting significant oscillations over the course of twenty-five years. Production has ranged from 450 million 40.8-Kg/90-pound boxes (18.36 MMT) in BR MY 1999/2000 to the estimated 223.14 million (8.80 MMT) BR MY 2023/24, a projected decrease of 27.3 percent from the previous harvest (MY 2022/23).

During its larger harvests, the Brazilian citrus belt produced an average of 400 million boxes (16.32 MMT), notably in BR MY 2011/12, 2012/13, 2017/18, 2019/20. The current Fundecitrus projection is a 50 percent drop from the peak and the lowest since BR MY 1988/89, of 214 million boxes. The main reason for the current drop remains the hot and dry weather, resulting in smaller fruits, according to Fundecitrus. Rainfall in May 2024 was worse than expected, 31 percent lower and high temperatures during the fall and winter intensified evapotranspiration, accelerating fruit ripening and the harvest pace.

Post forecasts orange weight at 160 grams/5.64 ounces in MY 2024/25, three percent lighter than Post's previous estimate of 165 grams for MY 2023/24, due adverse weather conditions. Fundecitrus projects that 261 pieces of fruit will be required to fill a 40.8 kg box (90-pound box), 23 more oranges than estimated in May 2024 and three less when compared to the estimate from September 2024. For MY 2023/24, the weight expectation from Fundecitrus is on average 156 grams (5.82 oz), which is below the initial projection of 169 grams (5.96 oz). If projections become official figures, the average fruit weight will be lower than the last 10-year average (163 grams/5.75 oz).

## Production



Bags of collected oranges in a Brazilian crop field

According to data from the Brazilian Institute of Geography and Statistics (IBGE) released in October 2024, Brazil's orange area in 2023 was 558,785 hectares, 4.5 percent less than in April of the same year. In 2023, the citrus belt accounted for approximately 84 percent of Brazil's orange orchard area.

Brazil is the fourth largest orange producer in the world. According to the business magazine "Exame" in November 2024, Brazil was responsible for 34 percent of the global orange production and 75 percent of the global orange juice market.

In Brazil, the citrus belt is the area with the highest incidence of plants symptomatic for greening (or Huanglongbing - HLB). According to data published by Fundecitrus, 44 percent of orange trees in the citrus belt are affected by greening, though severity varies.

The Climate Prediction Center (CPC) estimates there is 75 percent probability of La Niña and 25 percent neutrality (weather pattern) from November 2024 to January 2025.

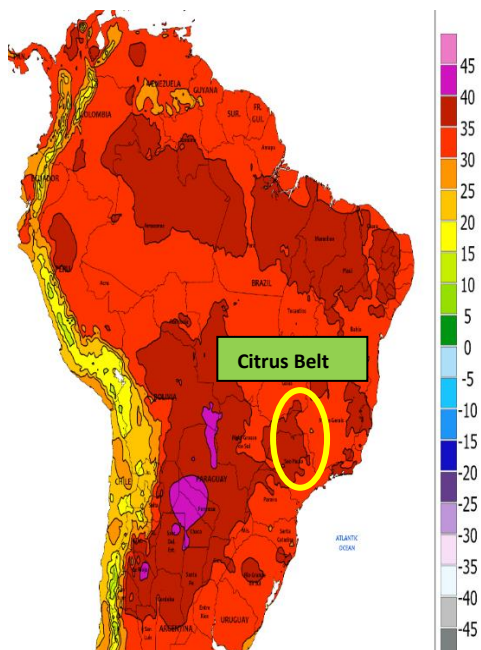
**Figure 2**

*Extreme Maximum Temperature in Brazil (in °C), November 24-30, 2024*

The map in Figure 2 on the left highlights the pattern of high temperatures in Brazil from November 24-30, 2024. In the citrus belt area, shades of red on the map indicate temperatures ranging from 86°F to 104°F.

Due to El Niño, the dry period occurred sooner than expected and more severe than usual. As a result, river levels were low during the current season (MY 2023/24).

The Brazilian National Center for Monitoring and Alerts of Natural Disasters highlighted that in August 2024, six percent of municipalities in the citrus belt were in severe drought conditions, 76 percent in moderate, and 18 percent in mild drought.



Source: NOAA/CPC

La Niña is expected to alter rainfall and temperature regimes and bring a return of normal weather conditions to various parts of the planet, including Brazil.

## Area

Post forecasts the area planted for oranges at 590,000 ha for MY 2024/25, the same as the estimate for MY 2023/24, based on official numbers on orange crops released by IBGE. Expansion in states of Mato Grosso do Sul, Minas Gerais, Bahia, and others is expected to offset the decrease in hectares in the citrus belt.

São Paulo is the only state that compiles trees planted and tree inventory data. According to crop data from Fundecitrus released in December 2024, bearing trees in São Paulo are estimated at 168.54 million in MY 2023/24, the same estimate from May 2024, and area is estimated at 406,266 hectares in the citrus belt.

As farmers seek areas with less greening incidence, some production has been expanding beyond the citrus belt. Bahia is the fourth largest producer of oranges in Brazil, with 610,000 metric tons in 2023, according to IBGE). In the Northeast, where Bahia is located, orange production is distributed over eight to ten months due to hot weather and irregular rain throughout the year.

Figure 3 below shows the main citrus-growing regions, according to data from IBGE (2022). It denotes the Brazilian citrus belt (77.45 percent in São Paulo and 6.39 percent in Minas Gerais), Paraná (4.17 percent) Bahia (3.46 percent); and Rio Grande do Sul (1.88 percent).

### Figure 3

*Main Citrus-Growing Regions in Brazil*



Source: IBGE 2023/updated on 09/12/2024, chart by FAS Brasília

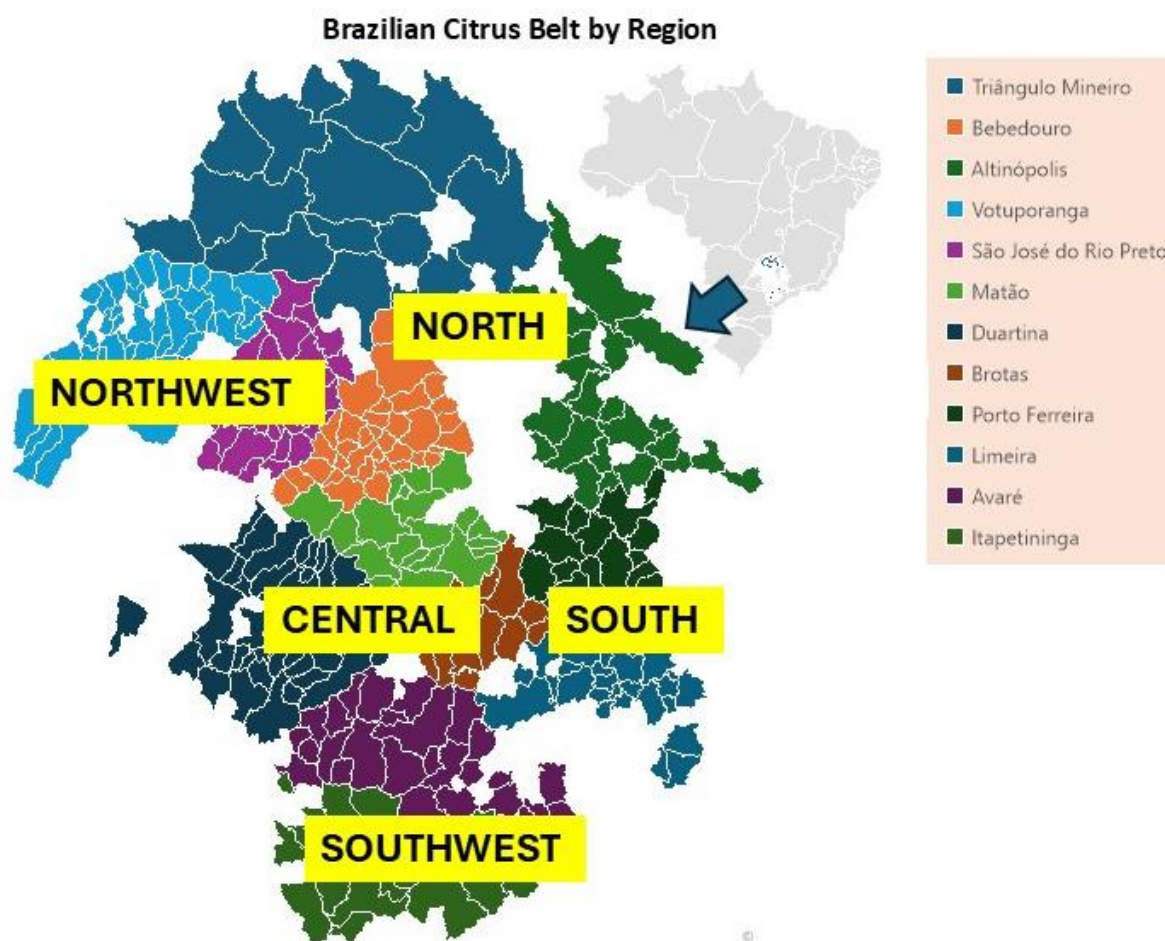


The Brazilian citrus belt is composed of five sectors: North, Northwest, Central, South and Southwest. In Brazil, there are around 5,000 orange grove properties. Most of them are large producers with high productivity. In addition to pests, high production costs and an insufficient labor force have driven many small producers away from the industry.

As reported by Post contacts in 2023, it costs around BRL 40 million (USD7.44 million) to invest in a citrus farm.

**Figure 4**

*Brazilian Citrus Belt by Region*



Source: Fundecitrus, elaborated by FAS Brasília

The map in Figure 4 above covers the area of land planted with orange trees in each of the five sectors of the citrus belt: North, Northwest, Central, South and Southwest. The areas with the highest concentration of orange tree planting are Duartina, with 61,031 ha and Avaré, with 60,566 ha. Meanwhile, there are 10,013 ha in Brotas - the smallest planted area - and 29,296 in Triângulo Mineiro, highlighted in the map by the lightest shade of orange. Density of orchards can be very uneven, including in the same producing region.

Post contacts disclosed that investment in irrigation is one of the agricultural strategies in Northern Brazil for current projects as current irrigation is insufficient.

Orange production has been increasing in Minas Gerais and Mato Grosso do Sul. To encourage the expansion of citrus farming in Mato Grosso do Sul, the local government published Decree n. 16,527 on December 3, 2024, that reduces the tax burden on interstate operations with oranges destined for industrialization.

Post contacts expect that, within the next four to five years, there should be an increase of 40 thousand hectares as part of the citrus production expansion outside the citrus belt. In November 2024, Mato Grosso do Sul News Agency disclosed that one company will be investing in a project of BRL 500 million (USD 83 million) in Mato Grosso do Sul to plant irrigated orange trees and possibly enable the construction of a factory to process the fruit into juice.

According to Post contacts, challenges for initiating new areas with citrus farms include the installation of electricity and investment in infrastructure. In Mato Grosso, citrus area is expected to reach 25,000 hectares by 2025, when in 2023 there were 485 hectares.

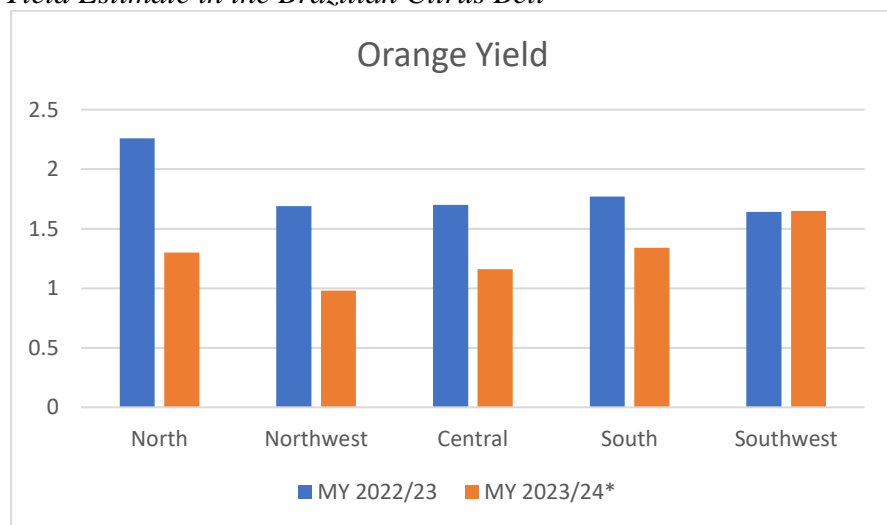
### Tree Inventory and Yields

Post forecasts the total Brazilian tree inventory for MY 2024/25 at 236 million trees, of which 193 million are bearing trees and 43 million are non-bearing trees, a decrease of 1.1 percent compared to 238.7 million of total trees estimated for MY 2023/24.

For the yield in MY 2024/25, Post forecasts 1.5 boxes of 90 pounds per tree, a decrease of six percent from the estimate for MY 2023/24 (1.6 boxes per tree), considering the production decrease of the current harvest and expectations for lower-than-average performance in the next harvest.

**Figure 5**

*Yield Estimate in the Brazilian Citrus Belt*



Source: Fundecitrus, chart by FAS Brasília

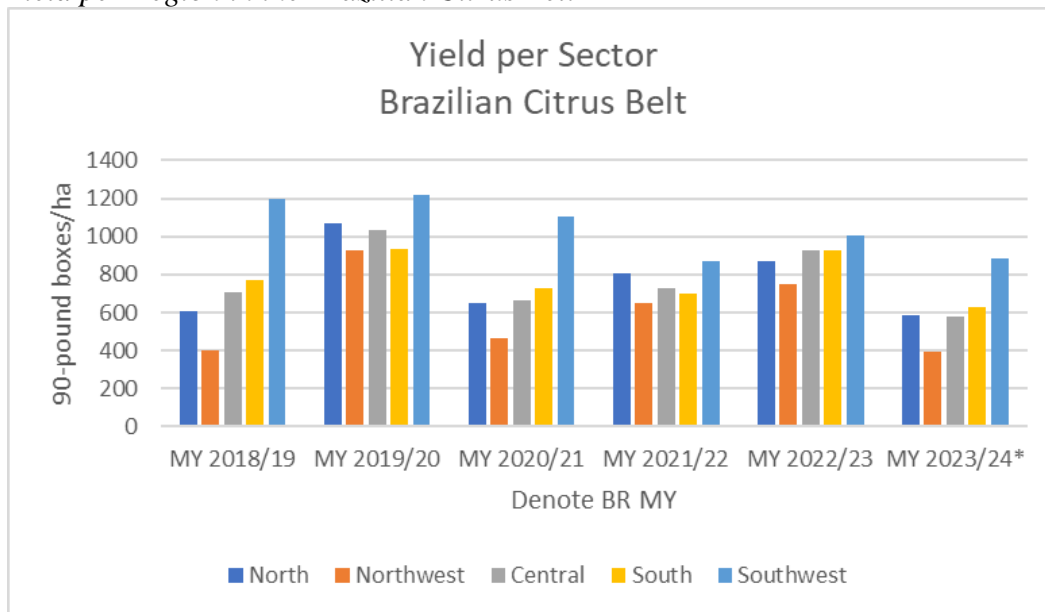
\* MY 2023/24: estimate by Fundecitrus



For the citrus belt, the graph from Figure 5 above shows both the previous harvest yield and the current forecast from Fundecitrus for MY 2023/24, with an average of 1.28 boxes of 90 pounds per tree. The Southwest stands out as the most productive region, with 1.72 boxes per tree and the Northwest as the least productive, with 0.81 box per tree.

**Figure 5**

*Yield per Region in the Brazilian Citrus Belt*



Source: Fundecitrus, chart by FAS Brasilia

\*Estimate

The graph in Figure 5 above shows productivity of the Brazilian citrus belt (São Paulo and Triângulo Mineiro) per hectare, split by region within the last five crops, including estimate figures from Fundecitrus to the current MY 2023/24 (BR MY 2024/25).

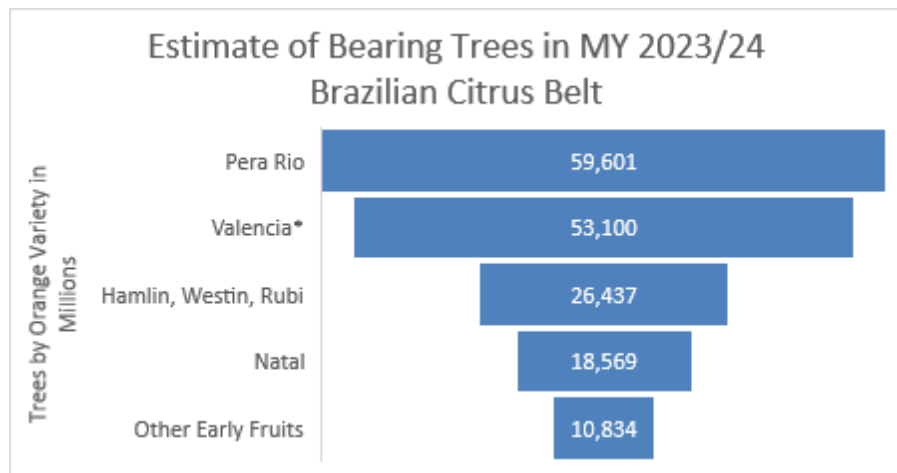
The graph highlights the Southwest region standing out with the estimated production of 883 boxes per hectare, despite the drop of 14.4 percent in productivity, comparing the estimated figures from Fundecitrus to MY 2023/24 with the last harvest numbers. The least productive region is projected to be the Northwest, with 392 boxes per hectare, 358 boxes below the previous harvest. The South, North and Central regions are projected to produce 627, 588, and 575 boxes per hectare, respectively.

According to Post contacts, seven percent of the citrus belt must be replanted every year to avoid a deficit. Therefore, seven percent of trees must be replanted from year to year so that in 15 years, 100 percent of the replanting occurs.

Figure 6 below shows which varieties of bearing trees produce the most.

**Figure 6**

*Estimate of Brazilian Citrus Belt Bearing and non-bearing trees in MY 2023/24*



Source: Fundecitrus, chart by FAS Brasilia

Valencia\*: Valencia and Valencia Folha Murcha

Other early fruits: Valencia Americana, Seleta, Pineapple, and Alvorada

Fundecitrus maintained its forecast for the citrus belt at 168,542.67 million bearing trees in MY 2023/24. Pera Rio is likely to total 35 percent of the citrus belt production, a one percent decrease from the previous estimate for MY2023/24. Valencia trees are estimated at 31 percent and Hamlin, Westin and Rubi are each estimated at 16 percent.



Trees of Natal oranges in a Brazilian crop field.

Citrus growers have various strategies to improve production and harvest. One is to have less vigorous trees on the periphery of the orchard. However, it is not always effective as insects can migrate to the inside of the orchard in search of more rigorous trees when the less productive trees are on the edges. This has been a strategy used by producers in different regions of the citrus belt.

For harvest, producers have been seeking alternatives to the use of ladders - as shown in the picture on the left - to pick fruit, especially from the older trees, such as a 20-year-old, which can grow to four meters (13 feet) tall. To facilitate manual harvesting, citrus farmers reduce the size of the tree or improve technification. Due to sufficient rainfall at the end of 2024, fruit supply is expected to increase between late 2024 and early 2025.

The late oranges, such as Valencia and Natal, will likely grow to full size, but the others may not reach the size of the previous crop.

## Greening

Huanglongbing (HLB), or citrus greening, is a bacterium that multiplies rapidly in susceptible plants, reaching high populations and in forty days. The impact is fewer, smaller, irregularly shaped and bitter oranges. The tree drops prematurely and eventually becomes weaker and easily prone to damage by other diseases. In Brazil, the damage is more pronounced in the citrus belt. According to Fundecitrus, in 2024, greening reached 44.35 percent of the orchards in São Paulo and in the Southeast region in the Triângulo Mineiro citrus belt, an increase of 6.3 percent compared to 2023. One of the main challenges in eliminating greening is that the insect can mutate into new forms, becoming immune to molecules created to fight it.

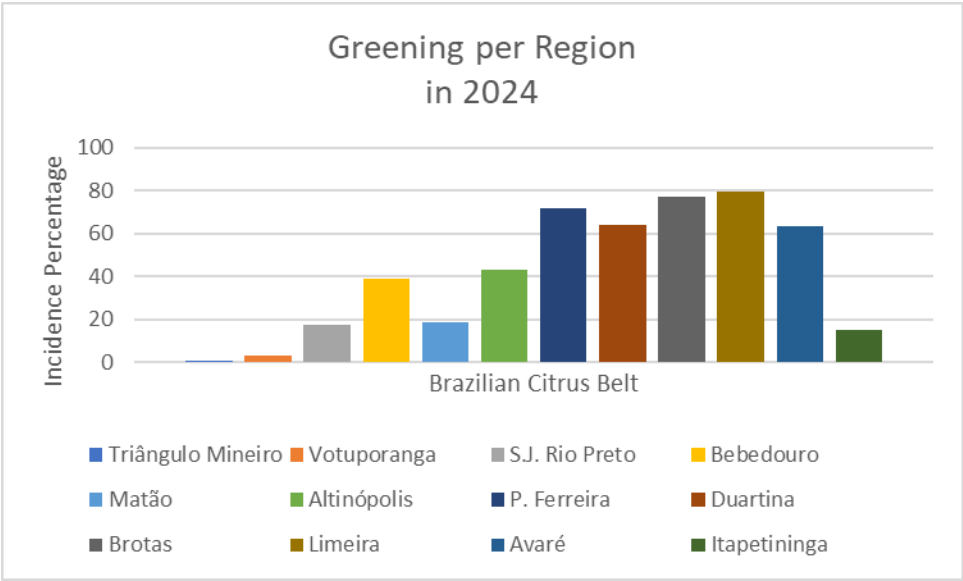
Post contacts affirm that new chemicals and practices have been developed to fight greening, including a natural repellent called caryophyllene; a non-chemical technique called kaolin; and the use of vigorous rootstock, an underground part of the plant from which new above-ground growth can be produced.

According to Fundecitrus data from September 2024, the average incidence of orange trees with greening in the citrus belt was 44.35 percent, corresponding to approximately 90.36 million trees. This rate is 16.5 percent higher than that of 2023, estimated at 38.06 percent. The re-estimated incidence was 48.64 percent in 2024 compared to 42.55 percent in 2023, an increase of 14.3 percent.

According to Fundecitrus, in the short term, the incidence of greening is expected to rise, though likely at a slower rate compared to previous years. This is primarily attributed to a decline in the psyllid population in 2024 compared to the previous year, as well as the establishment of new groves in peripheral regions of the citrus belt, where the risk of the disease is lower. In these areas, greening management will prioritize preventive measures, drawing on the knowledge and experience accumulated over the past 20 years since the disease was first detected in Brazil.

In the medium and long term, it is expected that the incidence of greening will decrease, not only due to the expansion of the citrus belt but also through the development and implementation of more effective solutions, including integrated management practices and plant improvement using modern breeding technologies. Ongoing research will continue to seek more efficient and sustainable methods to control and repel the psyllid and mitigate losses in infected trees. Additionally, biotechnology-driven projects are focused on advancing innovative solutions and applying gene-editing technologies to strengthen citrus defenses. These approaches represent a multifaceted strategy to safeguard citrus production against greening.

**Figure 7**  
*Incidence of Greening per Region in 2024*



Source: Fundecitrus data, chart by FAS Brasília

A disease survey by Fundecitrus, reflected in the graph above (Figure 7), shows that the regions with the highest incidences of greening in the citrus belt are Limeira (where the incidence rose from 73.87 percent in 2023 to 79.38 percent in 2024), Brotas (from 68.53 percent to 77.06), Porto Ferreira (from 59.65 percent to 71.77 percent), Duarteina (from 55.66 percent to 63.93 percent) and Avaré (from 54.79 percent to 63.41 percent).

**Prices**

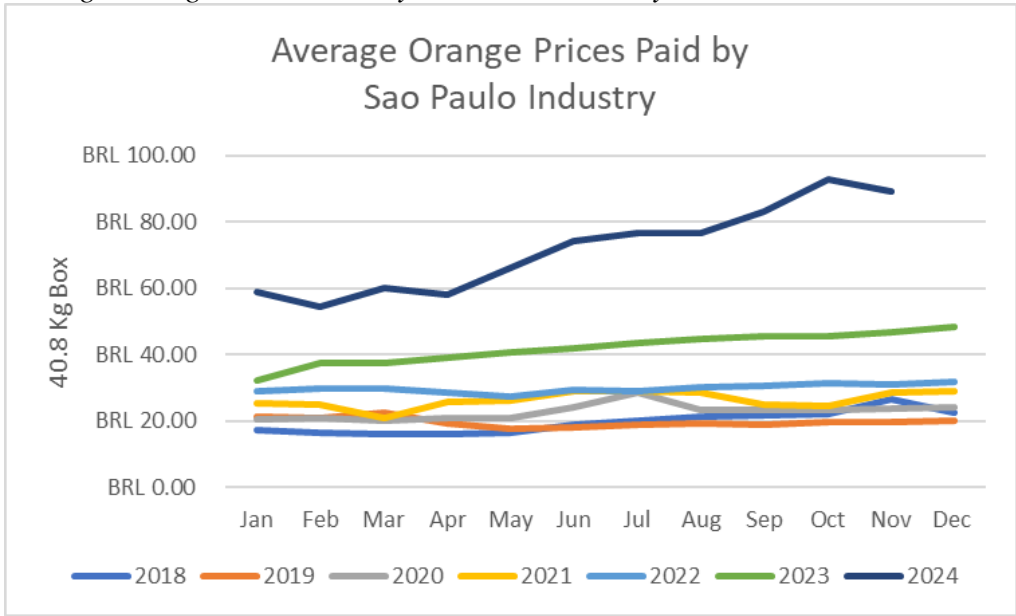
The orange index price series is published by the University of São Paulo’s Luiz de Queiroz College of Agriculture (ESALQ), along with CEPEA, for both the domestic fresh market and products delivered to orange juice processing plants in the state of São Paulo. Prices for the fresh market are for fruit on the tree. At the end of each calendar year, there is high demand from the industry, causing prices to rise due to low stock levels.

The global orange juice market produces 1.4 million tons and earns USD 7.5 billion annually. The current production decline, however, impacts the entire economic cycle, from processing to export, as already stressed out by Exame.

The lower supply of oranges has caused prices to rise continuously and juice brands to resort to new mixtures, such as nectar, which has more water and less fruit. As noted by Exame, on the New York Stock Exchange, the price of oranges jumped from USD 1,119 per ton in 2019 to USD 5,364 per metric ton in 2024, an increase of 379.7 percent in five years. The indicator used by the CEPEA shows that this year alone prices have almost tripled, from BRL 58.70 (USD 9.83) in January 2024 to BRL 136.51 (USD 22.86) in November 2024.

During the Brazilian summer months (December through March), supply and international demand for orange juice increases. According to Post contacts, small juice companies plan to increase sales of mixed juices, such as orange with passionfruit and mango. These mixed products are less expensive than regular orange juice. However, most Brazilian consumers still prefer the taste of orange juice.

**Figure 8**  
*Average Orange Prices Paid by São Paulo Industry*



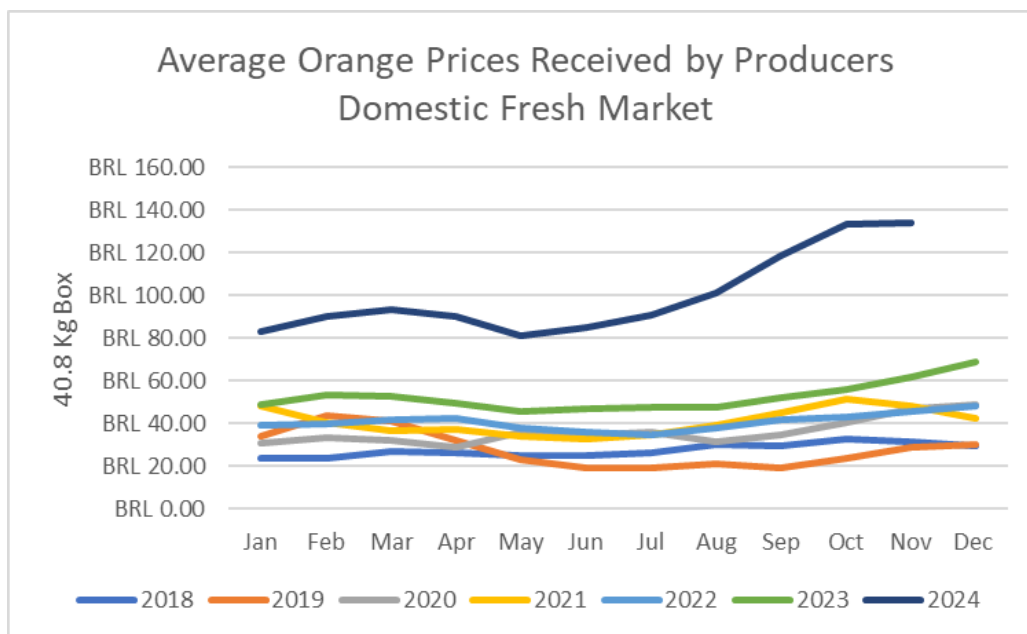
Source: CEPEA/ESALQ, elaborated by FAS Brasília

The graph above (Figure 8) shows that orange prices paid by São Paulo Industry/Spot Market (all orange varieties) significantly increased from May 2024 onwards. The average prices are in Reais, referring to 40.8-kg/90-pound box (fruits delivered to processing plants). From April 2024 to November 2024, prices ranged from BRL 66.16 (USD 11) to BRL 89.00 (USD 15), an increase of 25 percent in six months. In the same period in 2023, the increase was 16 percent.

The graph below (Figure 9) shows that orange prices received by producers kept rising in 2024, ranging from BRL 83.06 (USD 13.79) per 90-pound box in January 2024 to more than BRL 133.87 (USD 22.23) at the end of the year, the highest price ever observed.

**Figure 9**  
*Average Orange Prices Received by Producers in Domestic Fresh Market*

Orange Prices Received by Producers in Domestic Fresh Market (all orange varieties: Pera, Natal, Valencia, Lima, Baia, with harvest fluctuations depending on the time of year) denotes fruits on tree/in natura.



Source: CEPEA, chart by FAS Brasília

“Hortifruti Brasil”, a Brazilian magazine and market researcher, reported that price was a record high of the entire Hortifruti/CEPEA series, which began in 1994. Industry continues to absorb as many oranges as possible, and at high prices, due to low stocks. Supply, which was already tight, decreased even more as the predominantly hot weather and lack of rain limited quality.

The combination of greening disease, atypical weather temperatures and a long period of drought, have inflated the price of oranges in Brazil. This has caused farmers to harvest the fruit early, before the fruit is completely mature. From November 2023 to November 2024, the orange price average has more than doubled, from BRL 61.75 (USD 10.25) to BRL 133.87 (USD 22.23).

In general, orange growers that provide fruit to the juice industry have a higher cost, as it involves more logistics for transportation. According to CEPEA, the price offered by the industry has pushed up the value of the fruit on the fresh market. The competition for the fruit is boosting prices in all segments.



## Consumption



Post forecasts Brazilian orange consumption for MY 2024/25 at 4.3 MMT, a decrease of 2.3 percent compared to the Post estimate for MY 2023/24 (4.4 MMT). Increase in imports occurs to meet internal demand.

Note that fruit delivered to processors for “not from concentrate” (NFC) orange juice production for the domestic market will not be included as fresh orange 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.

There is no official data on orange consumption, which is evaluated by means of apparent consumption. According to Post contacts, the reduction in consumption of fresh oranges is due to the price, which

has reached the highest levels ever observed.

## Trade

For many years, Brazil has traded insignificant volumes of fresh oranges.

## Exports

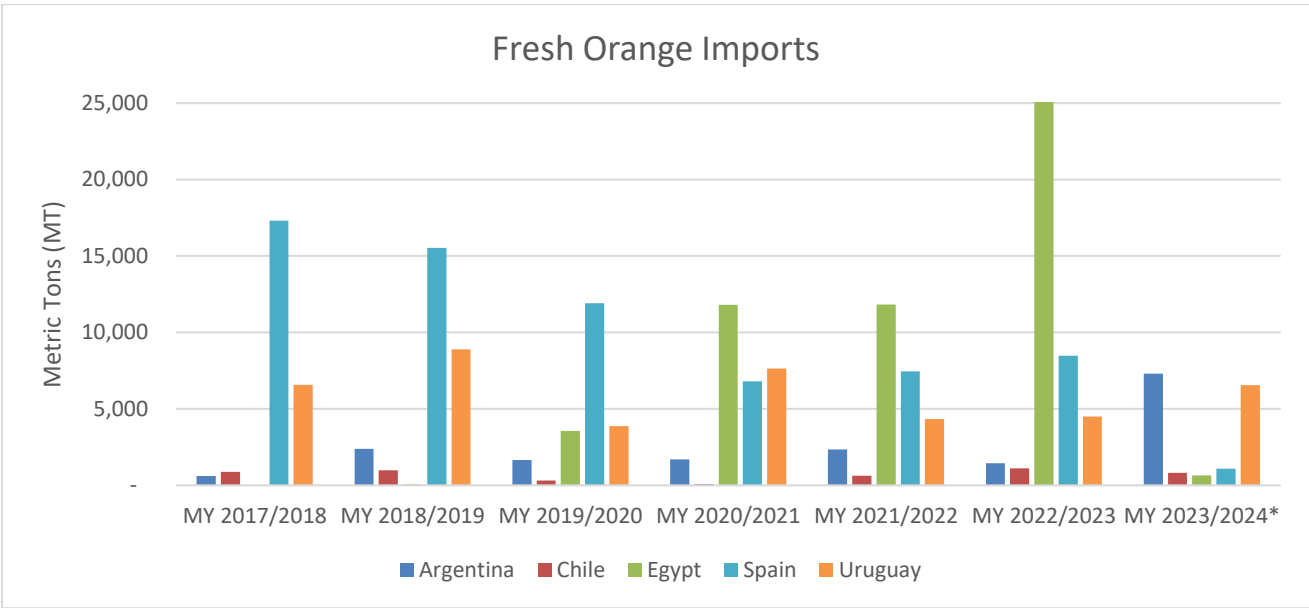
Total fresh orange exports for MY 2024/25 are projected at virtually zero, based on information from SECEX. Brazil has limited market access to other countries.

## Imports

Post forecasts total fresh orange imports for MY 2024/25 at 37,000 MT, an increase of 13.5 percent compared to the previous Post estimate for MY 2023/24, based on increased demand for fresh oranges. Brazilian imports of fresh oranges are at record levels in 2024, driven by low domestic supply and high prices for domestic fruit.

In MY 2022/23, Brazil imported a total of 40,895 MT, 53 percent more than in the previous season. Argentina, Uruguay, Egypt, and Spain were the major countries of origin for imported oranges from July 2023 to June 2024.

**Figure 10**  
*Brazil's Fresh Orange Imports*



Source: TDM, chart by FAS Brasilia  
2024\*: Jul-Nov 2024

The graph above (Figure 10) highlights imports in the last seven marketing years. Worldwide, from July 2024 until November 2024, Brazil imported 16,434 MT of fresh oranges, 44 percent from Argentina and 40 percent from Uruguay. Note that only partial harvest data was available until the closing of this report. This import volume reflects a 63 percent increase over the same period for the previous crop (6,010 MT). The peak was in MY 2022/23, when Brazil imported 25,361 MT of oranges from Egypt due to a Free Trade Agreement signed with Mercosur.

## ORANGE JUICE

### Production

### PS&D Table

The following table provides revised total Brazilian orange juice production, supply, and distribution (PS&D) for BR MY 2023/24, 2024/25, and the forecast for 2025/26. The MY mentioned above are equivalent to U.S. MY 2022/23, 2023/24, and 2024/25 respectively.

The table includes NFC production for exports converted to Frozen Concentrated Orange Juice (FCOJ), 66 Brix equivalent. The conversion factor is 1 metric ton of FCOJ 66 Brix equivalent to 5.4-5.6 metric tons of NFC 11.6 Brix.

**Table 2**

*Production, Supply and Distribution of Brazilian Orange Juice*

Orange Juice Market Year Begins Brazil	2022/2023		2023/2024		2024/2025	
	Jul 2023		Jul 2024		Jul 2025	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<b>Deliv. To Processors</b> (MT)	12200000	11009000	10932000	10932000	0	10737000
<b>Beginning Stocks</b> (MT)	9000	9000	8170	8170	0	4000
<b>Production</b> (MT)	1169274	1080337	1065830	1065830	0	1000100
<b>Imports</b> (MT)	0	0	0	0	0	0
<b>Total Supply</b> (MT)	1178274	1089337	1074000	1074000	0	1004100
<b>Exports</b> (MT)	1095104	1006167	1000000	1000000	0	932100
<b>Domestic Consumption</b> (MT)	75000	75000	70000	70000	0	68000
<b>Ending Stocks</b> (MT)	8170	8170	4000	4000	0	4000
<b>Total Distribution</b> (MT)	1178274	1089337	1074000	1074000	0	1004100
(MT)						

OFFICIAL DATA CAN BE ACCESSED AT: [PSD Online Advanced Query](#)

\*Note: There is a one-year lag between the BR MY and the U.S. MY. For example, BR MY 2024/25 is equivalent to U.S. MY 2023/24. To ensure data continuity, the Brazilian MY 2025/26 will be referred to as U.S. MY 2024/25 throughout this report.

### Production

Post forecasts the Brazilian FCOJ 66 Brix equivalent production for MY 2024/25 at 1.0 MMT, a decrease of 3.6 percent vis-à-vis the Post estimate for MY 2023/24 (1.06 MMT), due to decreased expected availability of fruit for processing from the current harvest, which is related to drought, extremely high temperatures and the increase of greening incidence.

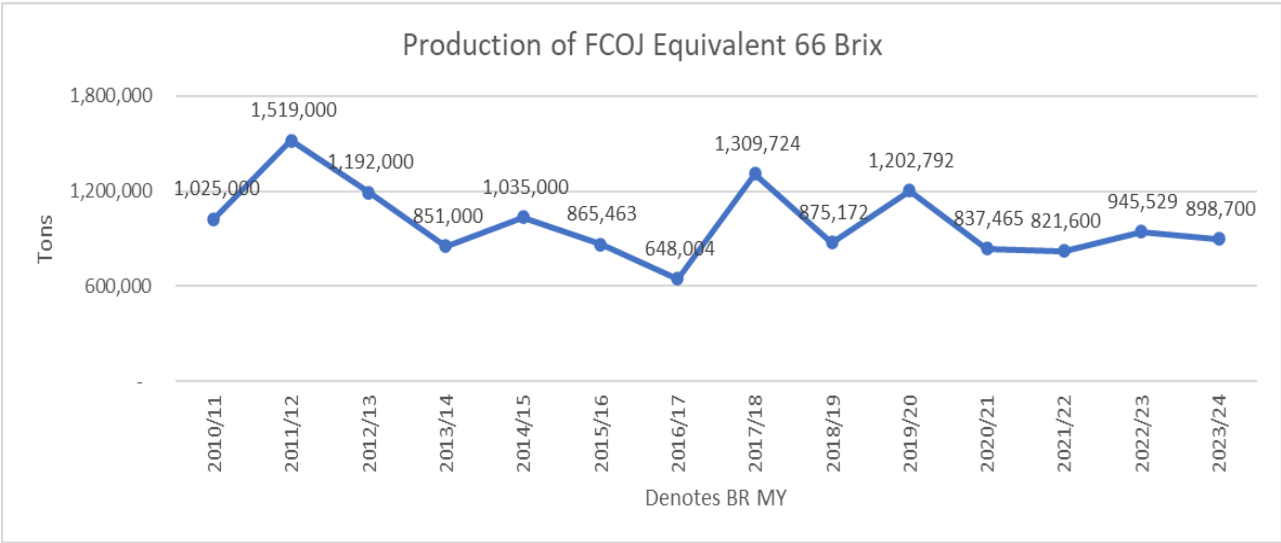
In industrial processing, two types of juice are made. The first is the concentrated and frozen juice (FCOJ), which undergoes an evaporation process, reduced six times and reaching 66° Brix”, a measure of sugar concentration. The second type is the non-concentrated juice, which undergoes only pasteurization and is exported in its natural dilution, with 12° Brix.

Orange juice production is concentrated in the state of São Paulo, followed by Minas Gerais. Most of processed juice is produced by CitrusBR members: Citrosuco, Cutrale, and Louis Dreyfus. During the

2024 drought, the juice industry was forced into early harvest. As a result, oranges were smaller, and more fruit was needed to achieve the ideal blend.

Concentrated juice when standardized to 66 Brix, receives additional water and aroma by the industry. For every one ton of FCOJ produced, six tons of whole juice are needed.

**Figure 11**  
*Production of FCOJ Equivalent 66 Brix in Brazilian Citrus Belt*



Source: CitrusBR, chart by FAS Brasilia

The graph above (Figure 11) highlights the flow of Brazilian FCOJ Equivalent 66 Brix in the Brazilian citrus belt, which reached its peak in the last decade, at approximately 1.6 MMT in MY 2010/11 (BR MY 2011/2012) and has decreased five percent from MY 2021/22 (BR MY 2022/23) to MY 2022/23 (BR MY 2023/24).

## Consumption



Post forecasts the outlook of domestic FCOJ equivalent consumption for MY 2024/25 at 68,000 MT, 66 Brix, 2.8 percent less than estimated for MY 2023/24 (70,000 MT), due to orange shortage and rising prices.

The shortage of oranges has been pushing the juice industry to launch mixed flavors. The reduced availability of oranges combined with the rise in prices motivates companies to incorporate a combination of two or more fruits into their portfolio, such as mixing mango juice with orange juice, selling it as a mix to final consumers. Others add water to create nectar and even reduce the size of the bottles from 1 liter to 700 milliliters, as highlighted by Exame. According to the agribusiness magazine “Revista Globo Rural”, some companies have started adding apples to drinks that were previously orange-only.

One of the threats looming within the citrus sector is the drop in orange juice consumption globally. According to the International Association of Fruit and Vegetable Juices (IFU), the consumption of orange juice in Europe fell between 15 and 20 percent in 2023, reflecting the increase in prices for bottled juice that is passed on to the consumer. According to Post contacts, the demand has dropped around 25 percent for FCJ and a slight increase for NFC.

A current concern for citrus stakeholders is a reduction in the consumer base, potentially leading to substitution for other alternatives in the long term. This decrease in consumption threatens the broad base of consumers that orange juice holds. Currently, orange juice's biggest competitor is diluted orange juice, including nectar.

In Brazil, NFC consumption has significantly increased since the last harvest, leading some large companies to increase its production to meet consumers' demand, associated with the current consumer's preference. NFC is more perishable and requires more challenging and costly logistics. The validity of NFC is 35 days, but when mixed with other flavors, it lasts up to 45 days. In contrast, the shelf life for concentrated juice is two years and concentrated juice can be blended. In addition, fresh juice depends on nature to guarantee its flavor and on technology to ensure that its taste is not lost in transport.

Juice brands and private labels will need to raise their prices in developed markets in early 2025, which could result in further drops in consumption, according to analysis from Globo Rural.

Note that NFC consumption converted to FCOJ equivalent is included in the orange juice figures.

## Trade

In Brazil, orange juice is processed into concentrated and not-from-concentrate juice and distributed worldwide. Brazil is the world's leading exporter of orange juice and accounts for 75 percent of orange juice marketed in the world. For every ten cups of orange juice consumed, seven are produced in Brazil.

The largest export market is the European Union, followed by the United States. Facing slightly reduced consumption of orange juice in these markets, supply is falling at an even faster rate, with low stocks in Brazilian factories and a projection of increased greening over the next harvests. To counter the softening outlook Brazil has recently sought to export other orange products, such as orange pulp, especially to markets in Asia.

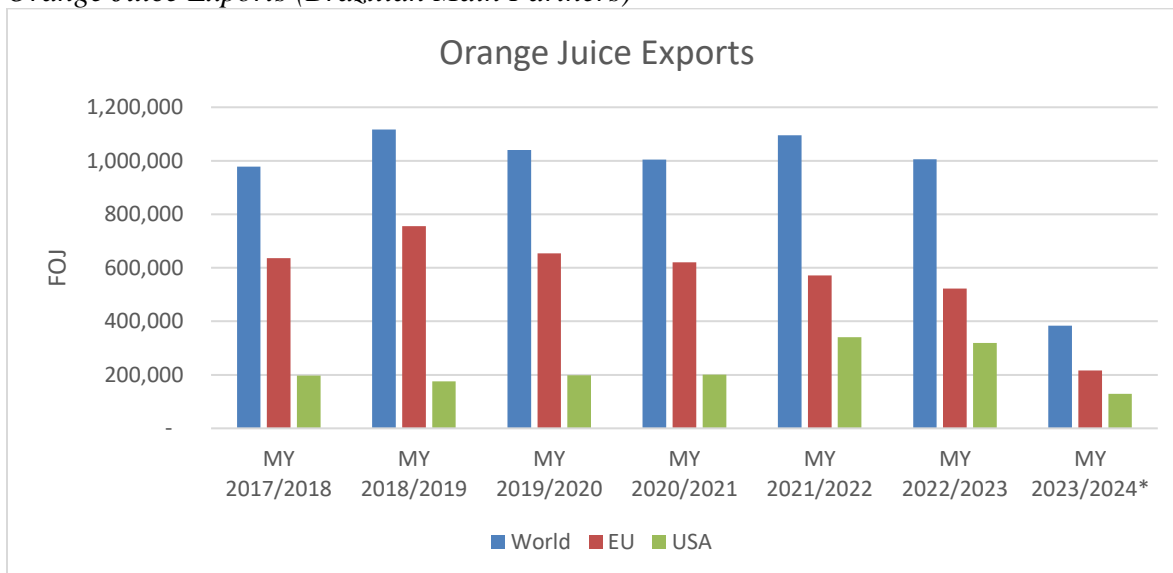
## Exports

Post forecasts Brazilian FCOJ 66 Brix equivalent exports for MY 2024/25 at 932,100 MT, a decrease of 6.8 percent compared to the Post estimate for the previous crop (1.0 MMT), due to challenges mainly related to weather conditions. In MY 2023/24, Brazil exported (July 2024-Oct 2024) 305,898 MT of FCOJ to the world, of which 92,660 MT were exported to the United States and 76,912 MT to the European Union.

Citriculture revenue increased in 2024, due to the restricted supply of orange juice. Orange juice exports (FCOJ equivalent to 66 Brix) totaled USD 850.4 million in the period from July 2024 to September 2024, which represents the first quarter of the MY 2023/2024 harvest. This is an increase of 43.23 percent compared to the same period of the previous harvest, when revenues closed at USD593.7 million. The volume, on the other hand, fell by 27 percent compared to the previous year.

**Figure 12**

*Orange Juice Exports (Brazilian Main Partners)*



Source: TDM, chart elaborated by FAS Brasília

FOJ denotes a conversion to frozen concentrate orange juice MT 66 Brix equivalent

MY 2023/24\*: Jul 24 – Nov 24

Europe continues to be the main market for Brazilian orange juice, with 121,502 MT shipped from July to September 2024, down 30 percent from the 170,825 MT shipped in the same period in 2023. Total sales of orange juice to the world were USD 511.2 million, up 42.51 percent on the USD 359.4 million in the first quarter of the previous harvest. Shipments to the United States fell by 19 percent to 67,323 tons, compared to 83,667 tons exported in the same period of the MY 2022/2023 harvest.



In an attempt to guarantee the supply of juice and maintain exports, some industries, especially in São Paulo (which recorded a 2.22 percent drop in orange production in 2023) have purchased oranges from Bahia to process into juice, according to Exame.

Imports

Brazil does not import orange juice.

Stocks

Post forecasts orange juice 66 Brix ending stocks for MY 2024/25 to remain at 4,000 MT, the same estimate for last year’s harvest, based on information shared by Post contacts that stocks will remain low. Stock figures include only stocks in storage tanks at orange juice facilities (processing plants, port terminals, etc.) in Brazil. According to Post contacts, orange juice stock is released as requested by demand.

CitrusBR global inventories include orange juice in storage tanks at processing plants and port terminals in Brazil and stocks abroad (vessels and port facilities worldwide). Ten years ago, orange stocks were over one million tons.

According to Hortifruti Magazine, low incoming stocks and restricted production in MY 2023/24 are likely to prevent stocks of juice from recovering in the next season.

Figure 16  
Global Stocks of Brazilian Orange Juice



As shown in the graphic above, global stocks of orange juice held by CitrusBR members audited on June 30, 2024, converted into FCOJ Equivalent, totaled 116,710 metric tons, a recovery of 37.7 percent, compared to the 84,745 metric tons recorded in the same period of the previous year, but the third lowest number in historical data.

According to CitrusBR, despite the recovery of 31.9 metric tons compared to the previous season, the current inventory level still defies supply and blending capacity. The sector is passing through the smallest harvest within the last three decades; it is possible to foresee disruptions in supply throughout the season.

It is expected that stocks will remain close to historic lows for another year, considering the supply and demand projection for 2023/24, which should sustain international prices at high levels in the first half of 2025.

**Attachments:**

No Attachments