

Required Report: Required - Public Distribution

Date: April 25, 2023

Report Number: BR2023-0007

Report Name: Oilseeds and Products Annual

Country: Brazil

Post: Brasilia

Report Category: Oilseeds and Products

Prepared By: Joseph Degreenia

Approved By: Michael Conlon

Report Highlights:

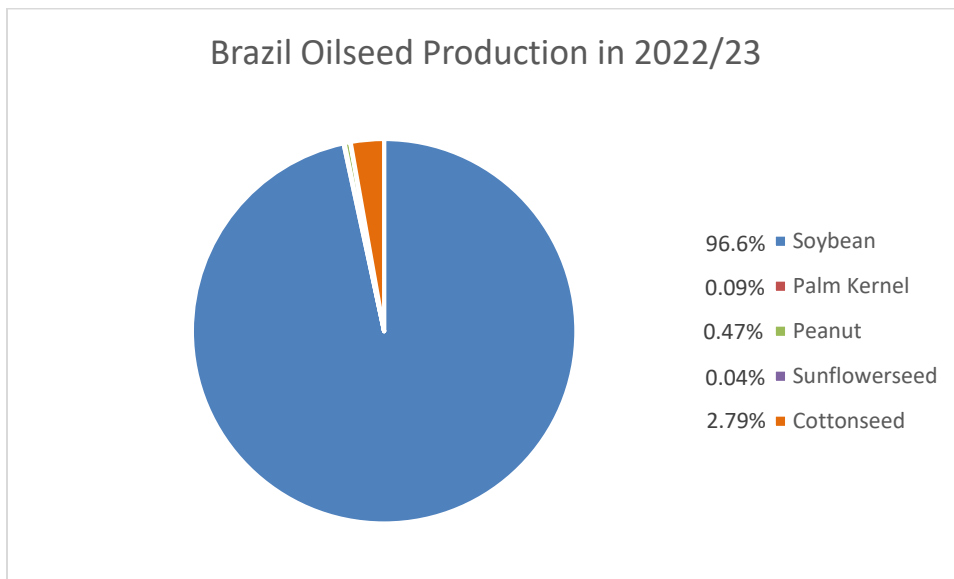
Post forecasts that Brazilian producers will expand soybean planted area to reach 45.2 million hectares (ha) in 2023/24 season, up from the estimated 43.5 mn ha planted in the 2022/23 season. Post forecasts 2023/24 soybean production at 159 million metric tons (MMT), up from the estimated 152.5 MMT harvest this season. Soybean expansion is forecast on current market conditions and trends - including strong demand, high prices, and a favorable exchange rate. All these conditions are expected to persist well into the 2023/24 season. Soybean exports are forecast to hit records this season and next at 95 MMT and then 98.1 MMT. Peanut planted area and production are also forecast to rise on the same factors. Cottonseed area and production are forecasted to rise in the 2023/24 season based on the same factors and a rise in global demand.

Oilseed Sector in Brazil

Brazil is a key global oilseed producer, accounting for almost a quarter of total global supply. For the 2022/23, marketing year (MY), Post estimates that the country produced about 158,380 MMT of soybeans, cottonseed, palm kernel, peanuts, and sunflower seed. Soybeans are by far the most dominant oilseed; in the 2022/23 MY, soybeans accounted for 96 percent of all oilseeds produced in the country. Cottonseed production is a distant second with 2.7 percent of Brazil's total oilseed volume, while peanuts, palm kernel, and sunflower seed account for less than one percent of production.

Figure 1

Brazil Oilseed Production in 2022/23



Source: USDA, International Production Assessment Division

Globally, Brazil is the leading producer and exporter of soybeans, accounting for more than forty percent of the world's soybean production. Brazil contributes about ten percent of world cottonseed production, however, 99 percent of cottonseed production in Brazil is consumed domestically. When it comes to peanuts, Brazil accounts for less than two percent of global production. However, it is the world's fifth-largest exporter of peanuts and second-largest exporter of peanut oil. Brazil's contribution to global production and trade of sunflower seed and palm kernel is negligible, well below one percent. Going forward, Brazil is expected to maintain its position as the oilseed production powerhouse in 2023/24 based on its dominance in the global soybean sector.

Across all oilseed crops, a key factor that will drive the expansion of planted area next season and beyond is the availability of arable land and inputs. Brazilian growers are expected to continue using innovative technology (seeds and crop protection), hoping to maintain yields across the oilseed spectrum and compensate for anticipated reductions in fertilizer use. While it has strengthened recently, the domestic currency remains weak compared to the dollar, fueling the agricultural export boom. Domestic

demand for oilseeds is expected to grow as well, with rising consumption of both oil and meal. Expansion may be somewhat constrained by inadequate infrastructure, though the country has made some strides on this score in recent years.

SOYBEAN SECTOR

Soybean Planted Area to Continue Expansion in 2023/24

Post forecasts that Brazilian producers will expand soybean planted area to reach 45.2 million hectares (ha) in 2023/24 season, up from the estimated 43.5 million hectares planted by farmers in the 2022/23 season. Soybeans are grown in 19 of Brazil's 26 states, as well as in the capital Federal District. This is based on elevated soybean prices and in line with the average yearly increase trend of 4.4 percent over the last five years.

Historical Growth

According to Post estimates, Brazil's cumulative soybean planted area grew by 20 percent, or 7.1 million ha, over the last five seasons. The USDA planted area estimate is in-line with the area expansion reported by Brazil's National Supply Company (CONAB). CONAB estimates that over the last five seasons, Brazil's cumulative soybean planted area rose 20 percent, or 7.5 million ha.

Brazil's massive Center West region – encompassing the states of Mato Grosso (MT), Mato Grosso do Sul (MS), Goias (GO), and the capital Federal District (DF) - is by far the biggest producer, accounting for well over a third of the country's planted area and production volume. CONAB estimates that in the last five seasons, soybean planted area in the Center West region rose at a pace of 25 percent slightly above the national trend of 20 percent. In the Center West region farmers sowed 20.2 million ha in the current season, expanding soybean acreage by 4.1 million hectares in the last five seasons. Post contacts in the region's biggest producing state of Mato Grosso have suggested that there is substantial opportunity for planted area expansion, assuming fertilizer and other input supplies revert to normal levels. The Mato Grosso Institute of Agricultural Economics (IMEA) estimates that by 2030, soybean planted area in the state will grow by over 40 percent to 14.79 million ha, up from just over 11.99 million ha in 2022/23.

One of the fastest growing regions for soybean expansion is the MATOPIBA region which encompasses the cerrado biome in the following states, Maranhao, Tocantins, Piaui and Bahia. According to geospatial analysis research completed by Abiove, between the 2019/20 and 2021/22 growing season MATOPIBA experienced a 17 percent increase in soybean area compared to a 13 percent average in all other states.

Figure 2*Brazil's Soybean Planted Area by Region*

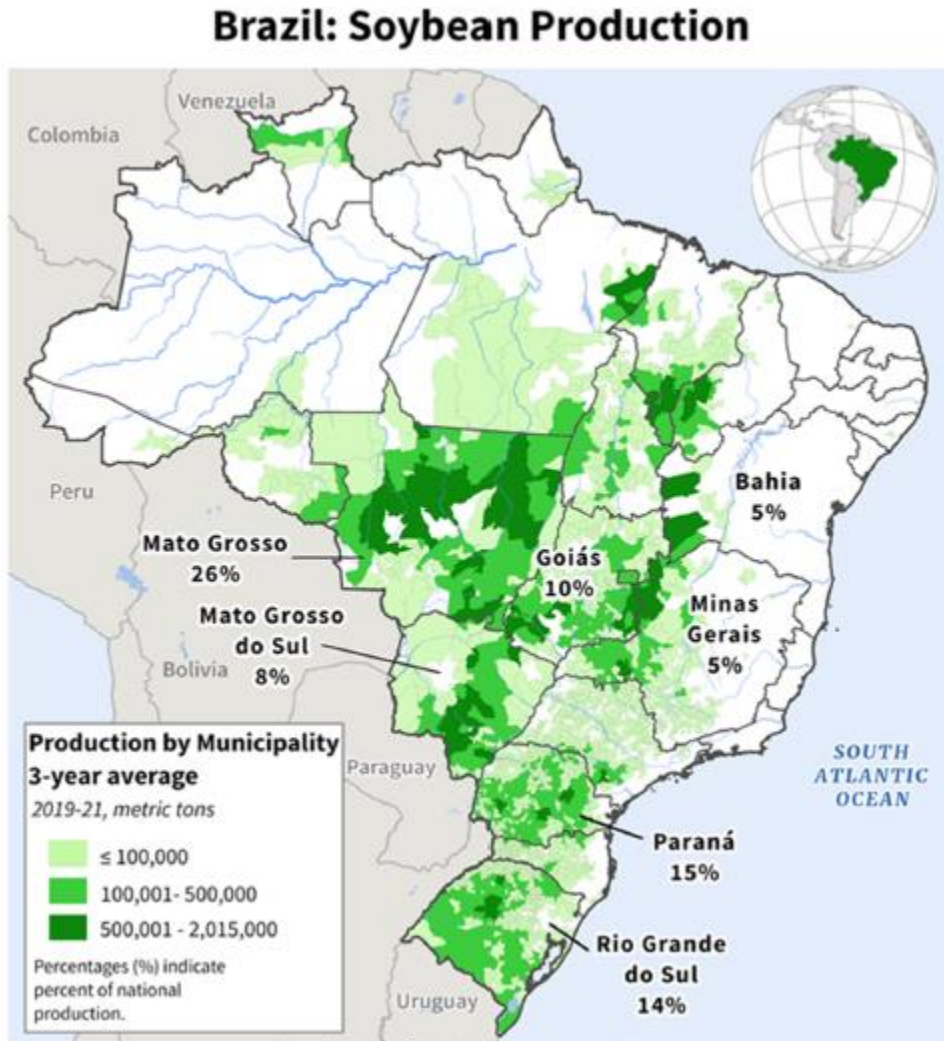
Soybean Planted Area by Region		2018/19	2019/20	2020/21	2021/22	2022/23	5-yr total Δ
North	planted area (mil ha)	2.0	2.1	2.3	2.6	2.8	0.8
	% increase	5%	5%	9%	13%	8%	40%
Northeast	planted area (mil ha)	3.3	3.4	3.5	3.8	3.9	0.6
	% increase	0%	3%	3%	8%	3%	18%
Center West	planted area (mil ha)	16.1	16.6	18.2	19.1	20.2	4.1
	% increase	3%	3%	10%	5%	6%	25%
Southeast	planted area (mil ha)	2.6	2.8	3.1	3.2	3.3	0.7
	% increase	4%	8%	11%	3%	3%	27%
South	planted area (mil ha)	11.8	12.1	12.4	12.8	13.1	1.3
	% increase	0%	3%	2%	3%	2%	11%
Total Brazil	planted area (mil ha)	35.8	36.9	39.6	41.5	43.3	7.5
	% increase	2%	3%	7%	5%	4%	20%

Data Source: CONAB March 2023 “Boletim da Safra de Graos” report data, OAA Brasilia table

Meanwhile, planted area growth will continue to plateau in the South – this region encompasses the states of Paraná (PR), Rio Grande do Sul (RS), and Santa Catarina (SC). Although this is Brazil's second-largest soybean-producing region, according to CONAB in the last five years cumulative planted area expanded 11 percent, just over half the rate of national growth. In Paraná, nearly all arable land has been put into crop rotation, thus planted area gains will be minimal in 2023/24. There is some pastureland that could be converted in Rio Grande do Sul and Santa Catarina, with expansion on the order of one to two percent year-on-year. That said, crop agriculture has always had a big presence in the Southeast. There, the increase in soybean area represents a switch from other crops, such as sugarcane, given the high profitability and liquidity of the oilseed globally.

New cropland has been developed in the North and Northeast of Brazil. In this part of the country, expansion in crop cultivation is accomplished by converting degraded pastureland and by developing new fields for production. Post anticipates that crop development in this part of Brazil will continue to accelerate on the back of improving infrastructure logistics.

Figure 3
Map of Soybean Production in Brazil



Source: Brazilian Institute of Geography and Statistics (IBGE) Data and USDA International Production Assessment Division Map

Soybean Planted Area Increase and Production Estimate Decrease for 2022/23

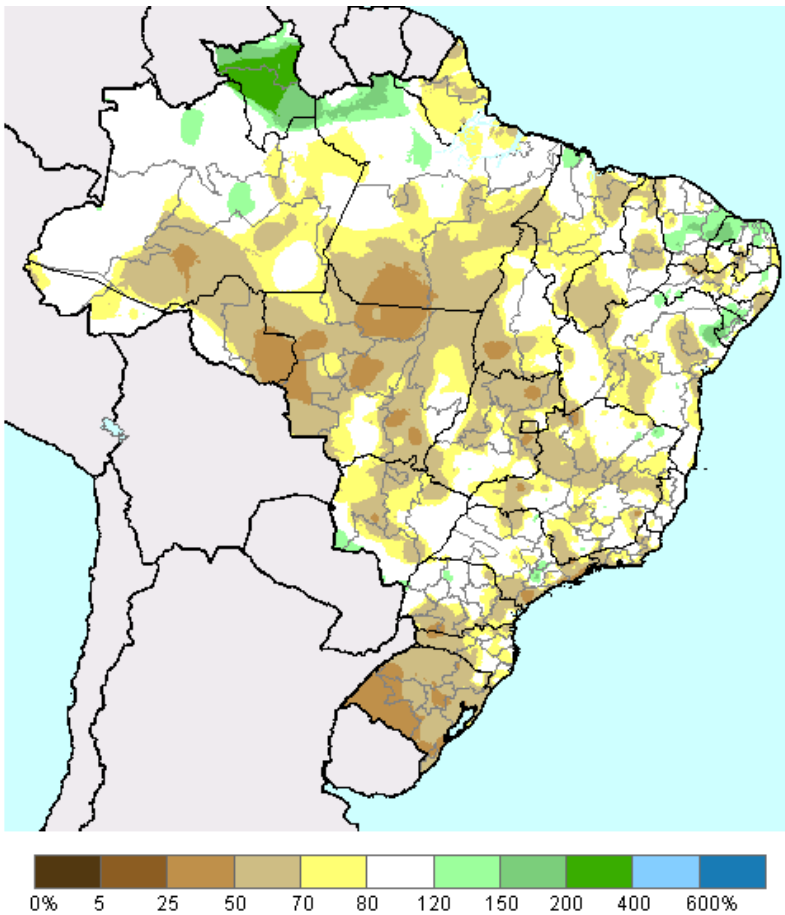
Post increased the soybean planted area estimate for 2022/23 at 43.5 million hectares, up 6 percent from last season's record area, according to recent data. CONAB and Post contacts estimated recent increases in Sao Paulo and Mato Grosso that were underestimated in the beginning of the season. Yield is estimated at 3.51 tons per hectare, 14 percent higher than last season. Post revised its 2022/23 soybean production down by 500,000 MT to 152.5 MMT due to lower than anticipated yields in Rio Grande do Sul. Although higher than anticipated yields in Mato Grosso, Goias, Tocantins, and Sao Paulo have offset the estimate from being revised even lower. Initial forecasts were estimated at 153 MMT.

State Analysis

Rio Grande do Sul: Production has once again been impacted by a severe drought and temperature induced evaporative stress as observed by the satellite-derived Percent of Average Seasonal Greenness (PASG) index. With almost three months without considerable rainfall, the crop succumbed to water deficit, which was accentuated by a historic and prolonged heat wave. The harvested area reached 20 percent as of April 7th. The drought had unequal impacts in various regions of the state. In the western and southwestern regions of the state the earlier planted soybeans were impacted more than the later planted soybeans. In some regions of the state, including Emater/RS-Ascar de Bage which is the largest cultivated area in the state, some producers were unable to even plant due to insufficient rains. However, in Caxias do Sul, the drought has not had a significant impact and losses are minimal.

Figure 4

Percent of Normal Precipitation Over Three Months (December 6, 2022- March 5, 2023)



Source: USDA International Production Assessment Division Map

Paraná: In this state, almost 89 percent of the area has already been harvested as of April 7. According to the Department of Rural Economics (Deral), 88 percent of the soybeans are rated good and 12 percent rated average. This is a significant increase from last year as a drought impacted the 2021/22 season. This season, Parana is expected to regain its status as the second leading producing state behind Mato

Grosso. Last seasons lower yields placed Parana behind Mato Grosso and Rio Grande Do Sul. CONAB estimated the yield to increase from 2.16 tons per hectare in 2021/22 to 3.67 tons per hectare in 2022/23. Both CONAB and Deral are estimating record production in Parana, helping to offset the production in Rio Grande do Sul.

Santa Catarina: The harvest in Santa Catarina as of April 7 was 50 percent. Production in Santa Catarina is expected to recover in 2022/23 as CONAB estimates the production for the state at 2.6 MMT and local analysts estimate production in the state can reach a record 3 MMT based on high yields and increased planted area.

Mato Grosso: In Mato Grosso 94.8 percent of soybeans were harvested as of March 12 compared to 91 percent at the same time last year. Harvest was delayed in the beginning of the season due to long periods of heavy rain. Relatively dryer weather over the last several weeks have allowed farmers to continue harvesting at average levels. Post contacts are reporting the harvest in Mato Grosso will reach a new record, with IMEA estimating production at 44.3 MMT in 2022/23 compared to 40.88 MMT in 2021/22. The yield in Mato Grosso has been adjusted up due to the higher than expected harvest, with the yield approximately at 62 sacs per hectare, an increase of 3.8 percent from last season.

Mato Grosso do Sul: As of March 7, 25 percent of soybeans have been harvested in the state. Soybean harvest in the north region of the state is the most advanced and the south is delayed. Production in the State is expected to recover from the drought last season, as CONAB is expecting an increase of 54 percent at 13.8 MMT in 2022/23 compared to 8.9 MMT in 2021/22. The state is predicting 93 percent of the crops are in good condition and the remaining in regular conditions.

Federal District: There was an increase of 2 percent in the soybean area. The productivity is estimated at 3.7 tons per hectare.

Goiás: Favorable weather conditions have allowed for an increase in production in Goiás. CONAB is estimating planted area in the state increase 3.5 percent in 2022/23 to 4.5 million hectares.

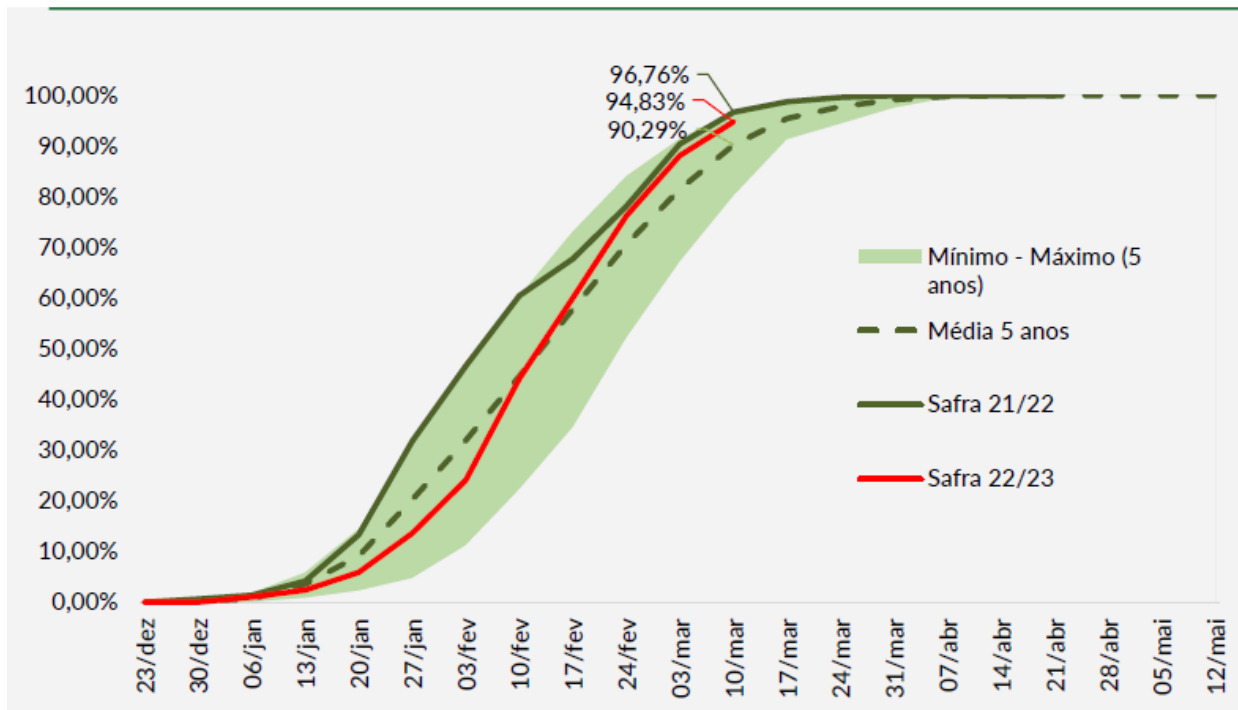
São Paulo: The harvest has only reached 40 percent of the area compared to 80 percent last year. Yields above initial expectations especially in the municipality of Candidi Mota in the south but wet conditions are preventing farmers from harvesting.

Minas Gerais: The state has received ample growing conditions and production is expected to increase compared to last year. Last season the state produced 7.59 MMT of soybeans compared to the expected 8.32 MMT this season.

Pará: The state is experiencing dryer conditions in the southern region, but overall production is expected to increase. Production is expected to increase 15 percent to 2.87 MMT based off higher planted area and a higher yield.

Tocantins: As of March 7, Tocantins has harvested 50 percent of their total soybean area which at the same time last year was 75 percent.

Figure 5
Soybean Harvest Rate in the State of Mato Grosso



Source: The Mato Grosso Institute of Agricultural Economics (IMEA)

Various Factors Impact Expansion

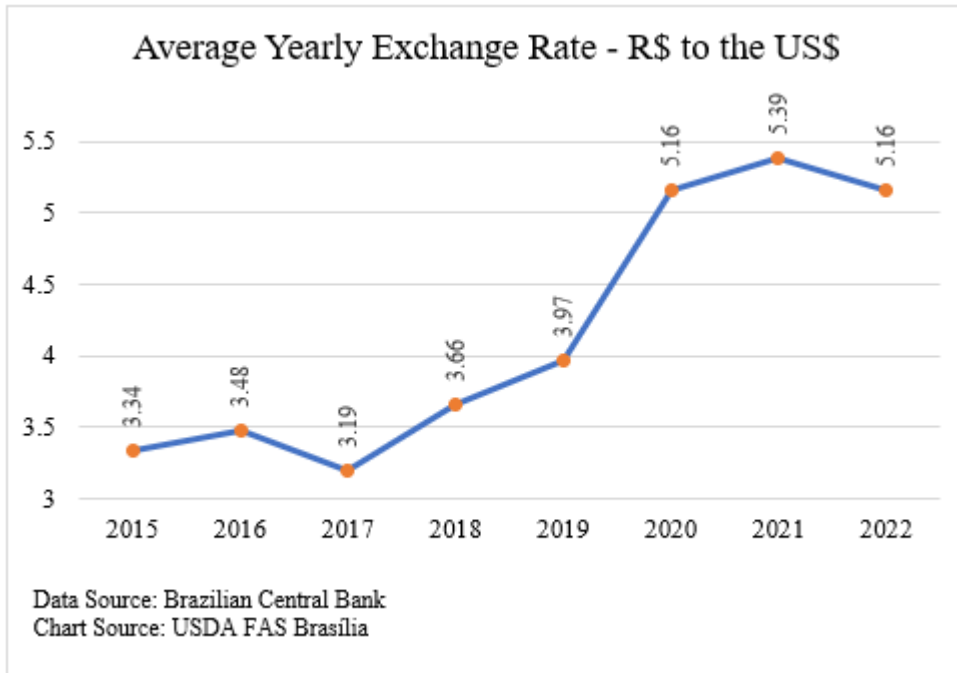
Global Demand: The coronavirus pandemic reinforced the market sentiment that soybean demand will remain on an upward trajectory regardless of any calamities and economic shake-ups. Post contacts indicate that global soybean demand will likely continue to rise, as the commodity is used in food, feed, and fuel. The Brazilian market anticipates that soybeans will be increasingly used in the production of biodiesel with the growing push for sustainable, renewable energy sources. There is also an emerging global trend of consumers seeking to supplement their diets with plant protein and plant lipid ingredients. At the same time, rising meat consumption is expected to create additional feed demand.

China is the primary driver of global demand, accounting for most soybean imports worldwide. The U.S. and Brazilian soybean harvest and export calendars are complementary and there is plenty of demand for both U.S. and Brazilian soybeans. Post contacts note that China is unlikely to significantly pull back on purchases of Brazilian soybeans because of established relationships, and because of the inherently less politically charged relationship between Brasilia and Beijing. Demand in China is expected to increase minimally this year as the livestock sector is expected to increase marginally.

Favorable Exchange Rate: Due to continued economic stagnation with the pandemic, the Brazilian currency, the real (R\$), continues a favorable exchange rate for Brazilian exports. However, the real has gained back some value in early 2023. Most analysts currently forecast that the Brazilian real will strengthen slightly, but continue to remain weak this year, as Brazil’s economy continues to be bogged

down by slow pandemic recovery and limited government resources. As of March 15, the Brazilian real stood at R\$5.28 to the USD.

Figure 4
Brazilian Real to U.S. Dollar, 2012-2022

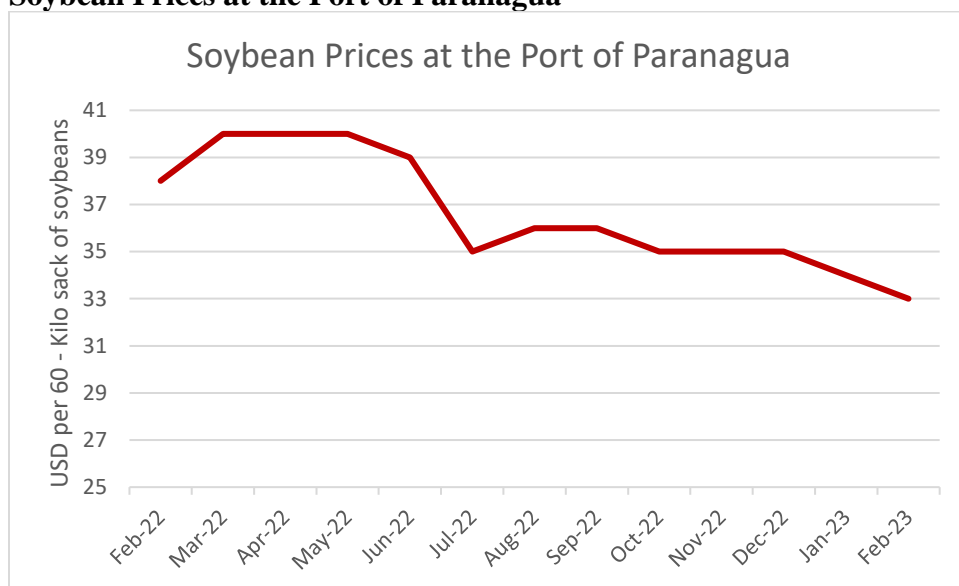


Source: Brazilian Central Bank

The devaluation of the real had a positive impact on Brazilian commodity prices from February 2021 to February 2022. From February 2021 to February 2022, the average price for a 60-kilogram (kg) sack of soybeans at the Port of Paranaguá rose 20 percent when valued in BRL – from R\$168.96 to R\$203.20 per 60-kg sack. In those same 12 months, prices in USD climbed about 32 percent – from \$30.18 to \$39.76 per 60-kg sack. According to the Brazil Central Bank, in 2022 the Brazilian real appreciated 4 percent against the US\$ from R\$5.40 per US\$ in 2021 to R\$5.16 in 2022. Despite the appreciation this year, Brazilian farmers still benefited from the real’s relative weakness against the U.S. dollar. This is because soybeans are priced in U.S. dollars but paid in reals.

However, the revaluation of the real has negatively impacted Brazilian commodity prices. For example, over the last year between February 2022 and February 2023 the average price for a 60-kilogram (kg) sack of soybeans at the Port of Paranaguá decreased 13 percent from \$38.00 to \$33.34 per 60-kg sack.

Figure 5
Soybean Prices at the Port of Paranagua



Source: CEPEA data, OAA Brasilia chart

High Prices: While it is impossible to predict all the factors that will affect Brazilian soybean premiums, growers enjoyed elevated prices for soybeans in 2021/22 marketing year. Average Brazilian soybean export prices decreased slightly in 2022, from \$629.49 per mt in February 2022 to \$575.08 per mt in January 2023. Average soybean farm gate prices stayed constant over the same period. Market analysts have indicated to Post that there is an increasing belief in the market that the global soybean sector may be entering a new super cycle for the next couple of years, with limited stocks and high prices, and despite rising production, demand will outstrip supply. Even with the record Brazilian supply of soybeans forecasted in 2022/23, analysts forecast prices will remain high mainly due to the severe drought in Argentina. Figure 7 shows the dramatic rise in soybean prices at the port of Paranaguá, starting in 2013 and into 2023. Notably, the current high prices have outpaced the records set in 2013.

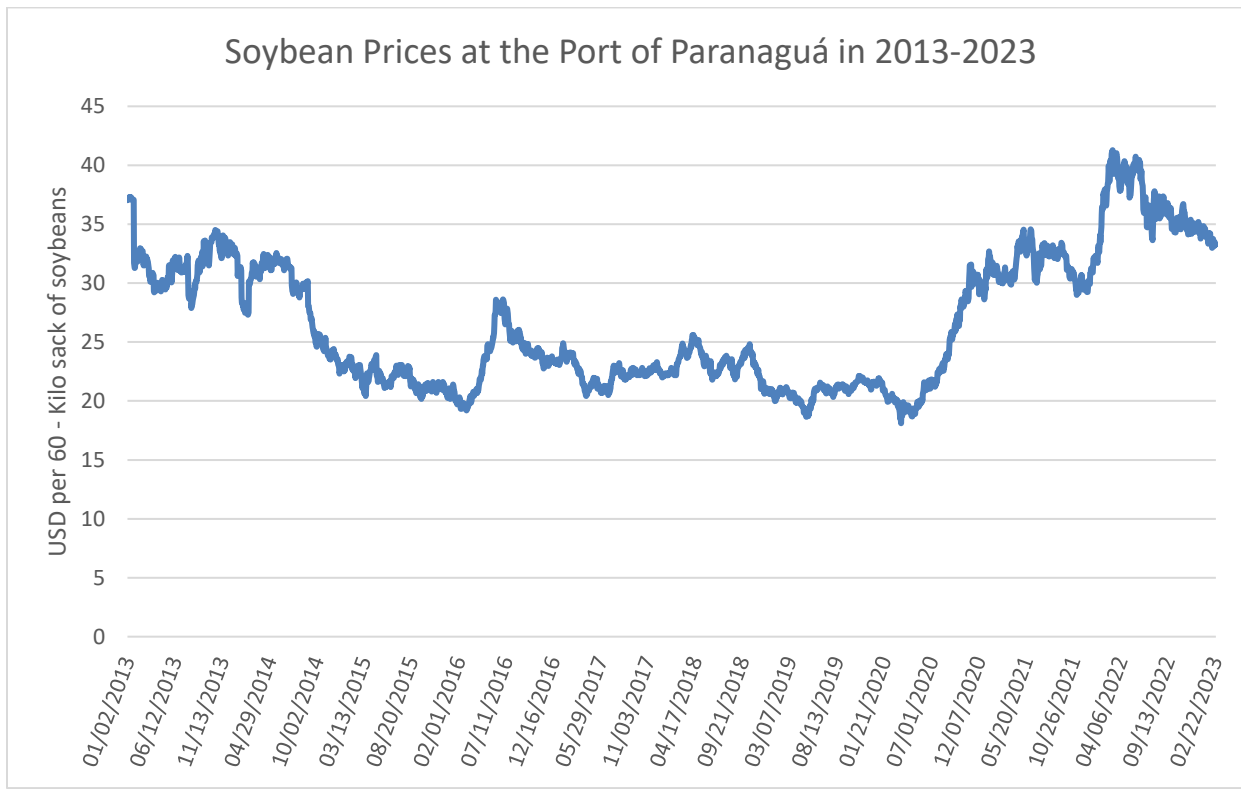
Figure 6
2022 Farmgate Soybean Prices in Brazil

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maringá / PR	180.13	194.38	199.50	184.70	190.75	193.38	188.90	186.13	184.70	184.13	186.00	180.90
Mogiana / SP	178.75	194.50	199.75	185.50	192.38	193.38	189.50	186.25	184.70	183.25	185.63	181.80
Passo Fundo / RS	187.88	207.25	209.75	192.00	196.75	196.00	191.40	187.25	184.10	183.25	185.00	184.30
Rondonopolis / MT	171.13	183.38	188.63	174.40	180.25	179.25	174.20	174.75	172.90	170.75	172.25	169.10

Prices in R\$/60 kg sack (w/o ICMS)

Source: Abiove, The Brazilian Association of Vegetable Oil Industries

Figure 7



Source: CEPEA data

Brazilian soybean prices tend to reflect global soybean price trends. As already noted above, thanks to the substantial depreciation of the BRL in 2021 and 2022, sales revenues in domestic currency rose even higher. Currently, Brazilian soybean prices also reflect a domestic premium that is supported by the scarcity of the oilseed in the market.

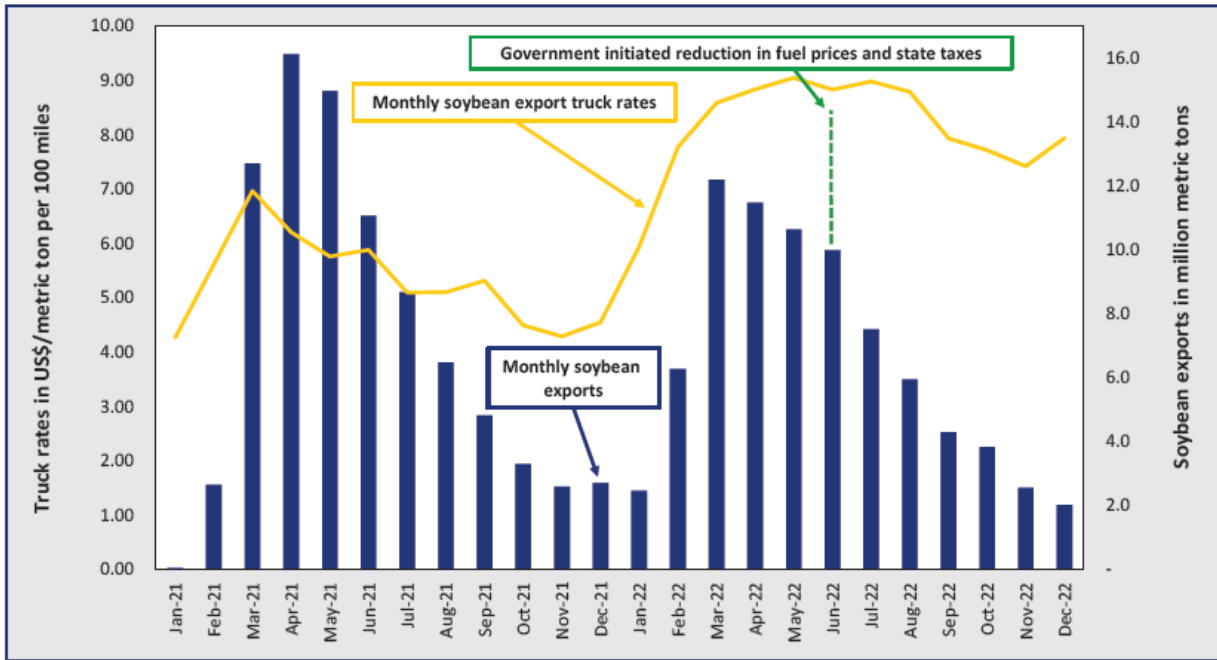
Transportation

Overall Transportation Costs Rise in 2022:

According to the USDA’s Agricultural Marketing Service (AMS), Brazil Transportation Report, although Brazil exported 9 percent less soybeans in 2022 than 2021, soybean transportation costs continued to rise. The cost of shipping a metric ton (MT) of soybeans 100 miles by truck increased from \$5.29 per MT in 2021 to \$8.15 per MT in 2022. This nearly 54 percent increase was mostly attributed to higher fuel prices. Fuel prices rose in the first half of 2022 and then started to decline in July but still remained higher than 2021. Fuel prices did not respond to lower State taxes and a reduced average price of fuel sold to distributors by the State-run oil firm Petrobras, which is displayed in the figure below. Average ocean rates on key export routes raised 1-11 percent. In selected routes of shipping Brazilian soybeans to China, total landed costs increased as both farm prices and transportation costs increased.

Figure 8

2022 Higher Truck Rates and Lower Brazilian Soybean Exports than 2021



Source: Comex Stat, Ministerio da Economia, University of Sao Paulo, Escola Superior de Agricultura “Luiz de Queiroz” (ESALQ/USP), Brazil, and USDA, Agricultural Marketing Service

Infrastructure Changes

Brazil has made significant improvements to expanding the capacity for shipping exports through the country’s northern and southern ports. This is a result of a comprehensive infrastructure improvement plan between the Brazilian Government and the private sector which was started in 2007. The figure below shows the increase in shipping capacity between 2013 and 2022. Since 2014, exports in Brazil’s Center-West region have gained a competitive boost from port improvements, extended railway miles and the completion of the pavement along the BR-163 highway. For example, in 2014 there was 1 mmt of soybeans exported from the Port of Barcarena and in 2022 it was the fourth largest port exporting 9 mmt of soybeans.

Figure 9

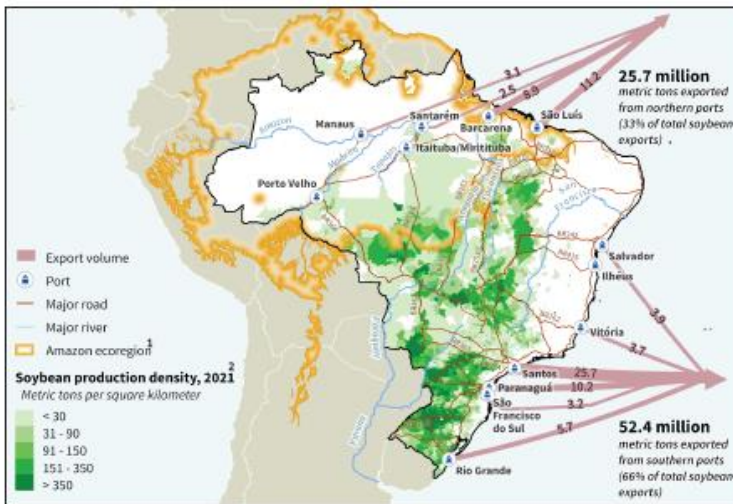
Brazil's Soybean Exports by Port

Brazil soybean exports: 2013



Ports	Million metric tons		
	2013	2014	2022
Santos	12.9	12.7	25.7
São Luís	3.0	3.1	11.2
Paranaguá	7.7	7.5	10.2
Barcarena/ Belém	-	1.1	8.9
Rio Grande	8.2	8.2	5.7
Salvador	1.8	2.0	3.9
Vitória	2.8	3.1	3.7
São Francisco do Sul	4.0	4.9	3.2
Manaus	1.3	1.4	3.1
Santarém	1.0	0.9	2.5
Others	0.1	0.7	0.6
Total	42.8	45.7	78.7

Brazil soybean exports: 2022



¹ World Wildlife Fund.

² Brazilian Institute of Geography and Statistics—Produção Agrícola Municipal.

Note: A hyphen in an otherwise empty cell denotes that the data are not available.

Source: Comex Stat, Ministerio da Econmica and USDA, Agricultural Marketing Service

Figure 10

Costs of Transporting Brazilian Soybeans from the Southern Ports to Shanghai, China, 2021-22

	North MT ¹ - Santos ² by truck			Northwest RS ¹ - Rio Grande ²		
	—US\$/mt—		% Change	—US\$/mt—		% Change
	2021	2022	2021-22	2021	2022	2021-22
Truck	59.30	93.98	58.5	18.85	29.45	56.3
Ocean	53.40	56.04	4.9	53.94	56.99	5.7
Total transportation	112.70	150.02	33.1	72.78	86.43	18.8
Farm gate price ³	482.47	536.97	11.3	489.39	579.79	18.5
Landed cost	595.16	686.98	15.4	562.17	666.23	18.5
Transport % of landed cost	18.9	21.8	15.4	12.9	12.9	0.2
	North MT ¹ - Santos ² by rail			North MT ¹ - Paranaguá ²		
	—US\$/mt—		% Change	—US\$/mt—		% Change
	2021	2022	2021-22	2021	2022	2021-22
Truck	20.64	31.47	52.5	58.62	93.11	58.8
Rail ⁴	29.69	44.31	49.3	-	-	-
Ocean	53.40	56.04	4.9	55.29	57.34	3.7
Total transportation	103.73	131.82	27.1	113.91	150.44	32.1
Farm gate price ³	482.47	536.97	11.3	482.47	536.97	11.3
Landed cost	586.19	668.79	14.1	596.37	687.41	15.3
Transport % of landed cost	17.7	19.7	11.4	19.1	21.9	14.6

¹Producing regions: MT= Mato Grosso and RS = Rio Grande Do Sul.

²Export port.

³The source of the farm gate price is the Brazilian Government, Companhia Nacional de Abastecimento (CONAB).

⁴In Brazil, there are no published rail tariff rates. Rail rates can be up to 30 percent lower than truck rates, depending on volumes hauled and the terms of contracts signed between the railroad company and shippers.

Note: mt = metric ton. A hyphen in an otherwise empty cell denotes that the data are not available.

Source: CONAB Data, University of Sao Paulo Escola Superior de Agricultura and Agricultural Marketing Service Chart

Red Flags for the Industry Remain

Brazil continues to depend heavily on trucks to transport grain to major destinations. This dependence is ensured for some time, because of the long distances that separate major production regions from terminals for barge and rail. This dependency is further ensured by limited rail and inland waterway infrastructure capacity (ESALQ/USP). To overcome this limitation, the Brazilian government enacted a new legal framework for railways and changed its cabotage law to enable private-sector investment and increase the Brazilian transportation sector's competitiveness internationally. (Please refer to [Oilseeds and Products Annual 2022](#) for more information)

Trucking Shortage

Even with the significant improvements in infrastructure over the last several years it remains as a main challenge to producers and exporters in Brazil. During recent conversations with producers, industry associations and exporters, transportation of soybeans is the main concern for the 2022/23 marketing season. This is due to the forecasted record production of commodities that would place a strain on available trucks and shipping logistics at the same time, including soybeans, soybean meal, corn, and sugar. Many producers reported to Post that they have had issues with contracting trucks for this year's harvest resulting in a shortage of available trucks. Producers have reported to Post that to combat with the shortage of trucks they have recently built more on farm storage capacity to be able to hold soybeans and ship them when trucks become available. The producers reported being able to do this recently due to the record prices and profits earned over the last two marketing years.

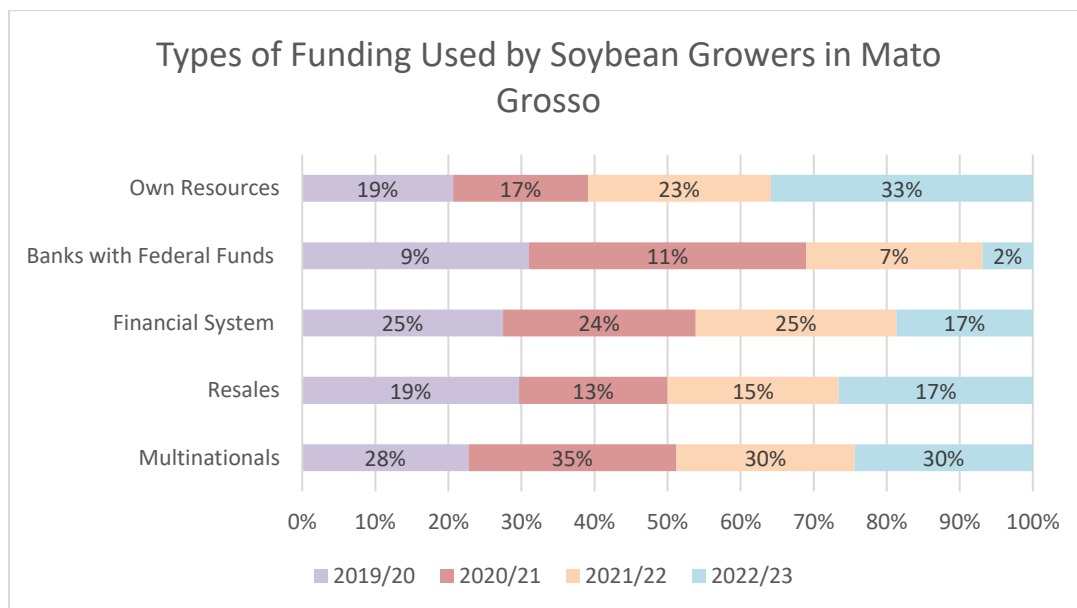
Infrastructure Disruptions

Brazil has made substantial improvements to its infrastructure in recent years. However, it continues to depend heavily on trucks to transport soybeans and grains to major destinations. This dependence poses challenges and risks to the industry. For example, in 2018, Brazil experienced a major disruption to commodity exports and domestic deliveries when truck drivers launched a nationwide strike, closing main highways for several weeks. The government managed to resolve the conflict by establishing a floor for commercial freight rates. However, until there is an alternative way to transport soybeans and grains to the Northern Arc ports, any group – be it truck drivers or others, such as protestors - may call nationwide attention simply by blocking traffic. The potential risk of delivery disruptions has ramifications for landed costs, forward contracts, and on the bottom line for producers.

Financing Constraints

Thanks to recent profitable seasons on the books, a good portion of Brazilian farmers are well capitalized going into the 2023/24 season. However, due to the current economic and market situation, the government-subsidized loans and contracts from multinational traders may be constrained next season. The graph below shows that growers typically use about 23 percent of their private funds to finance soybean planting in Mato Grosso. In the current season, farmers relied on government-backed loans and financing from multinationals for another 32 percent of all the required investment. As noted in the graph below, Mato Grosso soybean producers experienced a significant decrease in the funding sources from government backed banks and financial systems and instead increased with self-funded resources. This can be attributed to the increase in interest rates and the banks with federal funds not fully absorbing the demand from producers because in recent years the increase in the availability of credit from the Federal Government did not match the need of the producers to cover the rising cost of soybean production.

Figure 11
Types of Funding Used by Soybean Growers in Mato Grosso



Source: OAA Brasilia chart, IMEA data

Looking to next season, some smaller farmers may face difficulty securing credit, simply because the support allocated by the federal government via the annual farm bill (*Plano Safra*) is not looking promising. The *Plano Safra* operates on a July 1 – June 31 fiscal year. Each rural credit line is available to farmers for certain types of activities. However, given the fiscal crunch exerted by the pandemic and overall inflation, new resources are unlikely to come in.

Smaller Increase in Cost of Production

Cost of Production: Brazilian farmers have experienced a significant increase in the cost of production over the last several seasons. According to the IMEA, between the 2021/22 and 2022/23 seasons, the cost of production increased by 50 percent in Mato Grosso. As with past seasons, IMEA is forecasting the cost of production to increase again for the 2023/24 season by 3 percent in Mato Grosso. The increase for the 2023/24 season is significantly less than in the recent past. This can be attributed to decreases in price of fertilizers, seeds and crop protection (herbicides, fungicides, and insecticides), which have been driving production costs over the last several years. Other cost increases are linked to the exchange rate, since many farm inputs are imported.

Figure 12*Cost of Production of Soybeans in Mato Grosso*

Estimated Production Costs for Biotech Soybeans Varieties in Mato Grosso (Reals per ha)			
	2022/23	2023/24	% Δ
Variable Cost of Production			
<i>Variable Costs of Production (on Farm)</i>			
seeds	832.67	722.79	-13%
fertilizers	2417.29	1946.91	-19%
crop protection (herbicides, fungicides, insecticides)	1373.00	1611.23	17%
machinery operation	179.92	185.06	3%
labor	107.36	150.59	40%
<i>Variable Costs of Production (ex Farm)</i>			
maintenance of equipment and installations	114.90	193.46	68%
taxes and tariffs	193.27	206.27	7%
insurance and financing costs	428.16	478.92	12%
classification, processing	68.18	56.22	-18%
transport	82.39	121.10	47%
storage	26.84	15.10	-44%
other costs	141.39	151.02	7%
lease	301.41	342.52	14%
Fixed Costs of Production	290.48	498.54	72%
depreciation	213.32	411.42	93%
other fixed costs	77.16	87.13	13%
Total Operating Costs	6557.27	6693.34	2%
Opportunity Cost	1064.51	1184.60	11%
Total Cost (Operating Cost and Income Factors)	7621.78	7877.94	3%
*All costs cited in Brazilian Real for February 2022 and projected February 2023.			

Source: IMEA

Despite increasing production costs and the above-mentioned risk factors, the benefits of growing soybeans in Brazil are still attractive. Soybeans are by far the most dominant crop produced in Brazil, owing to their liquidity and profitability. In the current environment with high global demand and prices, as well as improving logistics, it is difficult to see how Brazilian growers would not continue to invest in soybean production expansion.

2023/24 Soybean Production

Post forecasts 2023/24 soybean production at 159 MMT, based on a yield of 3.51 MT per ha. Post believes that key reasons for steady yields are adoption and investment in inputs, such as Genetically Engineered (GE) seeds and the use of chemicals and fertilizers. Investment in technology has alleviated some of the variability brought by climatic conditions around the country.

Seed Technology: Brazil is one of the global leaders in the planting of GE crops. Soybeans have an adoption rate of 96 percent. According to sources in Mato Grosso and Bahia, the new drought-and pest-resistant seed varieties have significantly improved yields, particularly in problematic seasons. For example, interlocutors in Bahia have noted that whereas drought-like conditions 10 years ago could result in yields of below 40 sacks per hectare, now producers still expect to collect upwards of 50-plus sacks per ha for a season with adverse climate. Similarly, industry contacts reported much improved and consistent yields in Mato Grosso and Mato Grosso do Sul due to new seed varieties.

Fertilizer Use: To support its massive oilseed production sector, Brazil relies on imported inputs, including fertilizers. Soybeans are the top consumer of fertilizers in Brazil, using 40 percent of the total supply. According to the national fertilizer association, ANDA, Brazil imports around 85 percent of its total fertilizer needs, at a total value of around \$8 billion. The main exporters are Russia, Canada, China, and Morocco.

The potential risk of fertilizer disruption to Brazil rose substantially with the Russian invasion of Ukraine in February 2022. Russia is a leading global supplier of fertilizers, and Brazil sources about a quarter of its fertilizers from Russia. During the 2021/22 season and the start of the 2022/23 season fertilizer supplies were a concern to producers. Now Brazil has been able to import ample supplies and some Post contacts report it has an oversupply of fertilizer.

In general, soy- thanks to inherent characteristics and seed improvements- is better at taking up fertilizers and tolerating reduced application than other crops. Embrapa estimates that fertilizer use could be reduced up to 20 percent with limited impact on the crop, although industry believes that number is closer to 10 percent. With that said, some producers may expand soybean planting, as it's a hardier crop compared to corn or especially cotton. However, expansion into degraded pasture- one of the largest potential areas for Brazilian soy- will likely be limited, since it would require greater fertilizer inputs than may be available.

In March 2022, the Government of Brazil (GoB) unveiled the National Fertilizer Strategy, designed to decrease the country's dependency on NPK imports. The Geological Survey of Brazil (SGB-CPRM) prepared several scenarios to reduce the national dependency on imports to 60 percent by 2050. The main thrust of the strategy is to attract private investment into the sector, attracting international and national investors to Brazil's domestic fertilizer market.

Recognizing that import needs will remain substantial even in the long term, the Government of Brazil has cultivated partnerships with key suppliers of fertilizers: Canada, China, Morocco, Russia, and Belarus among others. In early 2022, high-placed Brazilian officials visited Russia, Canada, and Iran, to strike deals to maintain fertilizer flows. However, risk remains about if, and when, the adequate volume

of essential supplies will be delivered. For more information on the fertilizer situation in Brazil, see GAIN Report: [Brazil Agriculture Seeks Remedies for Potential Fertilizer Disruptions](#).

DOMESTIC CONSUMPTION & PROCESSED PRODUCTS

Soybean Crush Industry to Grow on Trend in 2023/24 and 2022/23

Post forecasts 55.8 MMT of soybeans destined for processing in the 2023/24 MY, an increase of five percent on the 2022/23 estimate of 53 MMT. The forecast expansion is slightly below the five-year average growth rate of six percent. The expansion is based on available soybean supply and rising demand for both soy oil and soymeal domestically, as well as export demand which will be supported by the continued weakness of the Brazilian real. The estimated crush should rise over three percent this season, based on the expectation of a record soybean harvest. Post slightly revised up the 2021/22 crush estimate to 48.58 MT, up from the original estimate of 48.25 MT. Post also slightly adjusted up the production estimate for 2021/22 to 127.04 MMT, up from an original estimate of 126.6 MMT.

Post forecasts 2023/24 soybean meal production at 41.6 MMT, up from the estimated 41 MMT in 2022/23. Domestic soymeal consumption is forecast to increase by less than one percent in the current and next seasons. Post anticipates domestic meal demand will grow in line with a recent increase in beef and pork production.

For next MY, Post forecasts soy oil production at 11.0 MMT. Domestic oil consumption is expected to increase to 8.65 MMT, up from 8.19 MMT in the current season. For 2022/23, Post estimates soy oil production at 10.4 MMT.

Post expectations for higher oil production and consumption are based mostly on biodiesel blending mandates. On March 17, 2023, Brazil increased the current rate from 10 percent to 12 percent effective April 1st. Brazil also stated there will be further gradual increases to the biofuel mandate until 15 percent, or B15, is reached in 2026. Post's estimates include a 12 percent biofuel mandate. While soy oil is expensive, diesel prices also high, and in the current situation it is difficult to find diesel in world markets. For fuel composition, domestic diesel comprises about 78 percent, biodiesel, 10 percent, and the remaining 12 percent is imported diesel. Compared with biodiesel, imported diesel is 12-16 percent more expensive. Therefore, a higher blending with biodiesel as a substitute for imports, which are becoming scarcer and costlier, may not have a major impact on prices.

In addition to blending rate, biodiesel demand is also projected to rise as economic and commercial activity picks up post-pandemic. According to Brazil's National Agency of Petroleum, Natural Gas and Biofuels (ANP), each percentage increase in the blend rate represents about 600 million liters of additional biodiesel production annually. In Brazil, about 80 percent of biodiesel is derived from soybean oil, with the remainder made from beef tallow, sunflower oil, and several other sources. A lower blend rate remains a risk for the industry – one that is unlikely to come to pass but would have significant ramifications if it does.

Under the best-case scenario, blending rates are expected to drive substantial processing expansion. According to ABIOVE, there are about 50 biodiesel plants spread across the country, with the capacity to process enough soybeans into oil to meet a blending rate of 22 percent (B22).

TRADE

Soybean and Soybean Meal Exports in 2023/24 Forecast Up

Soybean exports in the 2023/24 (February 2024 to January 2025) marketing year (MY) are forecast at 98.1 MMT, 3.1 MMT higher than in the current MY. The forecast is based on available supplies and a favorable exchange rate. For 2023, the Brazilian Central Bank forecasts GDP to grow 0.76 percent and 1.5 percent in 2024. Notably, unlike a multitude of other sectors, soybean consumption has limited elasticity, particularly in the main importing hubs of China and Europe.

Figure 13

Brazil's Top 10 Soybean Export Markets

Brazil's Top 10 Soybean Export Markets (MMT)			
	2017	2022	5-yr total Δ
China	53.8	53.6	-0.4%
EU-27	5.2	7.1	37.3%
Thailand	1.6	2.8	74.7%
Iran	1.3	2.3	84.8%
Turkey	0.3	1.9	541.4%
Russia	1.0	1.6	56.3%
Pakistan	1.0	1.2	22.2%
Bangladesh	0.0	1.1	-
Vietnam	0.6	1.0	59.7%
Algeria	0	0.1	-

Source: Trade Data Monitor

The EU accounts for around 10 percent of all Brazilian soybean exports. Of all EU countries, the Netherlands is the largest importer of soybeans. Spain is another large soybean importer from Brazil. Around one-quarter of all soybeans imported by the Netherlands are directly re-exported to other countries, as the country acts as a logistics hub and a point of clearance for products distributed to the rest of Europe.

Over the past few years, Brazil has come under intensifying criticism over the rollback of environment protection and rising rates of deforestation, linked to soybean production and farming practices writ large. Representatives of several European countries, including Ireland, France, Germany, and the Netherlands, have spoken publicly against ratification of the EU-Mercosur free trade agreement (FTA) due to concerns with the preservation of the environment and the Amazon.

If this criticism does not subside and instead intensifies, soybean exports to Europe may decline. If Europe stops sourcing from Brazil, it will likely have to turn to the other large soybean supplier: the

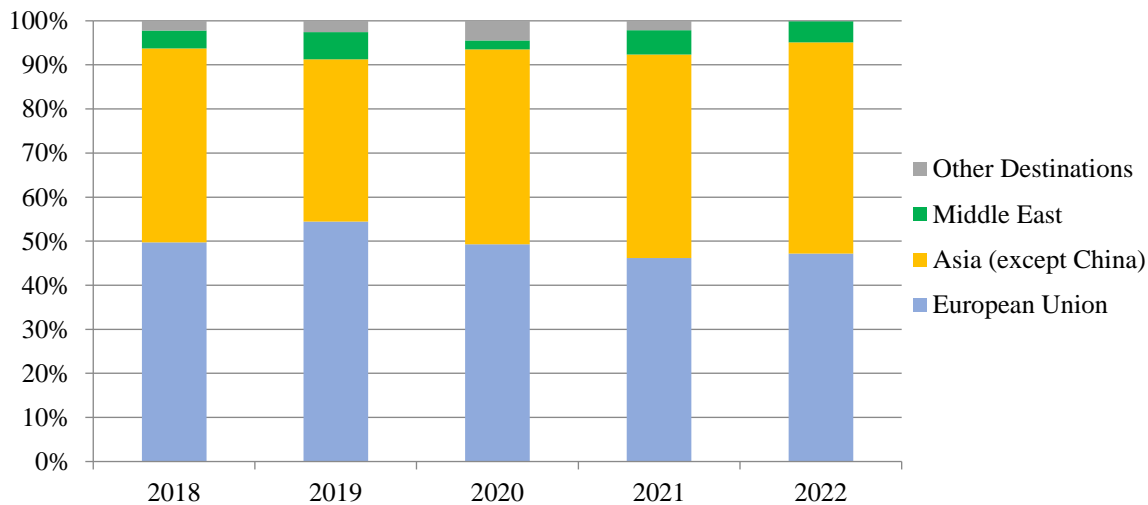
United States. Brazil would then re-direct the 10 percent of soybeans it currently ships to Europe to other destinations typically serviced by the U.S. supplies.

Soybean Meal Exports

Post forecasts soybean meal exports to increase about 1 percent to 20.5 MMT in 2023/24, based on available supply and export demand supported by continued weakness of the Brazilian real. In 2021/22, almost 50 percent of Brazil’s soybean meal exports were shipped to the EU. It would be much harder to seamlessly transition sales for 50 percent of the soybean meal that Brazil currently ships to the EU. Post does not believe this scenario to be likely for several reasons, including the co-dependency of exporters and importers: while Brazil has limited options for where to shift its soybean meal exports outside of the EU, the EU buyers are also limited by the number of soybean meal suppliers they can source from.

Figure 14
Brazil’s Soybean Meal Exports

Exports of Soybean Meal (% over the whole year)



Source: Abiove

Current Soybean Export Season off to a slow start

The 2022/23 marketing season is experiencing less exports than normal due to several reasons including, delayed 2022/23 harvest season, lack of available supplies from the 2021/22 season and producers currently holding soybeans until prices increase. Prices are currently 30 percent lower for soybeans than at the start of last season and since production costs have increased, as outlined earlier in this report, farmers are holding until prices improve. As of March 6, the sale of Brazilian soybeans for the 2022/23 season reached 35.4 percent, compared to 48.4 percent last year and a five-year average of 51.7 percent.

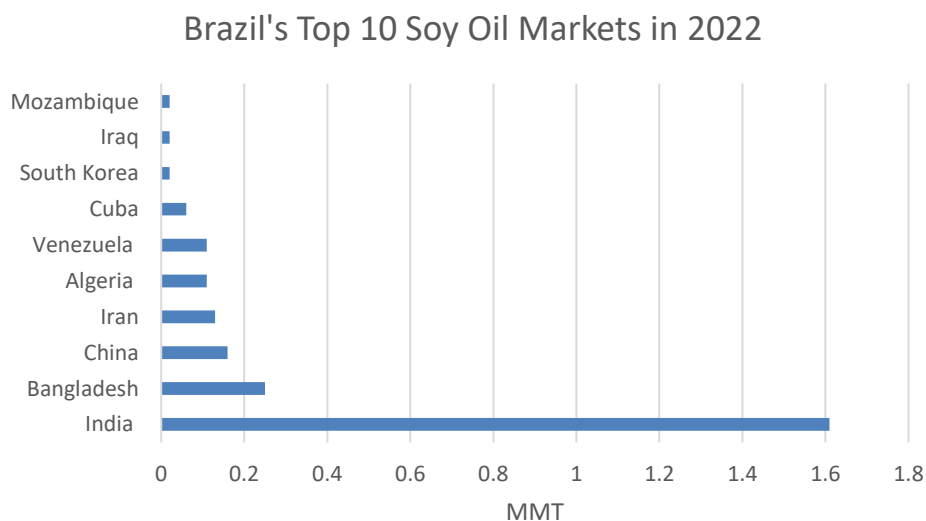
Post contacts report that the forward selling of the 2023/24 season is also delayed with only 1.6 percent sold for the 2023/24 season compared to 7.1 percent from March 2022 and 10.6 percent of the five-year average.

As outlined in the production section of this report, soybean harvest in the 2022/23 marketing year started at a slower pace than average due to wet conditions in Mato Grosso. The pace has since increased to normal, but the original delay has impacted port deliveries. Post contacts have reported of long wait times in March to unload soybeans at the port due to the harvest being initially delayed. Brazil exported 14.6 MMT of soybeans in March 2023 compared to 12.2 MMT in March 2022, an increase of 20 percent. This is compared to the lower number a month prior when Brazil exported 7.27 MMT of soybeans in February 2023 compared to 9.13 MMT in February 2022, a decrease of 20 percent. This is according to estimates by the National Association of Cereal Exporters (Anec), which calculates its projections based on official information on shipments and on the schedule of Brazilian ports. This is similar for soybean meal exports as well, when Brazil exported 1.28 MMT of soybean meal in February 2023 compared to 1.57 MMT in February 2022, a decrease of 18 percent. This is compared to Brazil exporting 1.9 MMT of soybean meal in March 2023 and 1.3 MMT in March 2022, an increase of 46 percent.

Post lowered the soybean export forecast for the 2022/23 season down by 2 MMT to 95 MMT. This is due to lower-than-expected production in Rio Grande do Sul and the expectation that crushing will increase. Post increased the crushing for the 2022/23 season to 53 MMT, up from the original 51.5 MMT estimate due to a higher demand of soybean oil both domestically and globally.

Post estimates soybean meal exports at 20.3 MMT for 2022/23, a moderate increase on last season. As economies rebound from the Covid-19 pandemic, it is anticipated that global protein demand will increase, further motivating meal imports.

Figure 15
Brazil's Soy Oil Export Markets



Source: Trade Data Monitor

Post anticipates that exports of both soybean meal and oil will continue to be supported by the relatively weak domestic currency. Soy oil is expected to be in especially high demand. According to Post contacts, the crusher is most competitive, because crush margins are very good. Due to the poor soy crop in Argentina importers are desperately seeking sources for oil. As a result, Post forecasts higher exports for Brazilian soybean oil, up to 2.35 million tons in 2023/24, from 2.3 million tons in the current season. Post anticipates that exports of both soybean meal and oil will continue to be supported by the relatively weak domestic currency.

Soybean Stocks

Post forecasts ending stocks will continue to remain low in the 2023/24 marketing season for soybeans, soybean oil and soybean meal. The 2023/24 ending stock estimate for soybeans is 4.5 MMT, for soybean oil is 200,000 MT and meal 2.6 MT for soybean meal. This is due to strong international demand, less production in Argentina and the expected increase of the biofuel mandate.

Soybean Imports to Remain Steady in 2022/23

Post forecasts soybean imports to remain steady in 2023/24 marketing year at 400,000 MMT. During marketing year 2020/21 Brazil imported a record number of soybeans, totaling 860,000 MMT. Previously to 2020/21, Brazil was importing on average about 260,000 MT of soybeans per season. The Brazilian domestic crush industry functions year-round, and often sources soybeans in the last quarter of the season, when domestic crop supplies run low.

Table 1*Soybean Production, Supply, Distribution*

Oilseed, Soybean (Local)	2021/2022		2022/2023		2023/2024
Market Year Begins	Feb 2022		Feb 2023		Feb 2024
Brazil	USDA Official	New Post	USDA Official	New Post	New Post
Area Planted (1000 HA)	41500	40900	43700	43500	45200
Area Harvested (1000 HA)	41500	40900	43700	43500	45200
Beginning Stocks (1000 MT)	2426	2426	1829	1300	2600
Production (1000 MT)	130500	127040	154000	152500	159000
MY Imports (1000 MT)	416	419	750	400	400
Total Supply (1000 MT)	133342	129885	156579	154200	162000
MY Exports (1000 MT)	77118	77000	96500	95000	98100
Crush (1000 MT)	51150	48585	53500	53000	55800
Food Use Dom. Cons. (1000 MT)	0	0	0	0	0
Feed Waste Dom. Cons. (1000 MT)	3245	3000	3650	3600	3600
Total Dom. Cons. (1000 MT)	54395	51585	57150	56600	59400
Ending Stocks (1000 MT)	1829	1300	2929	2600	4500
Total Distribution (1000 MT)	133342	129885	156579	154200	162000
Yield (MT/HA)	3.1446	3.1061	3.524	3.5057	3.5177
(1000 HA) ,(1000 MT) ,(MT/HA)					

Table 2*Soybean Oil Production, Supply, Distribution*

Oil, Soybean (Local)	2021/2022		2022/2023		2023/2024
Market Year Begins	Feb 2021		Feb 2022		Feb 2023
Brazil	USDA Official	New Post	USDA Official	New Post	New Post
Crush (1000 MT)	51150	48585	53500	53000	55800
Extr. Rate, 999.9999 (PERCENT)	0.1925	0.1997	0.1923	0.1962	0.1971
Beginning Stocks (1000 MT)	468	468	352	90	100
Production (1000 MT)	9846	9700	10288	10400	11000
MY Imports (1000 MT)	33	33	100	100	100
Total Supply (1000 MT)	10347	10201	10740	10590	11200
MY Exports (1000 MT)	2645	2645	2300	2300	2350
Industrial Dom. Cons. (1000 MT)	3450	3666	4000	4340	4750
Food Use Dom. Cons. (1000 MT)	3900	3800	3975	3850	3900
Feed Waste Dom. Cons. (1000 MT)	0	0	0	0	0
Total Dom. Cons. (1000 MT)	7350	7466	7975	8190	8650
Ending Stocks (1000 MT)	352	90	465	100	200
Total Distribution (1000 MT)	10347	10201	10740	10590	11200
(1000 MT) ,(PERCENT)					

Table 3*Soybean Meal Production, Supply, Distribution*

Meal, Soybean (Local)	2021/2022		2022/2023		2023/2024
Market Year Begins	Feb 2021		Feb 2022		Feb 2023
Brazil	USDA Official	New Post	USDA Official	New Post	New Post
Crush (1000 MT)	51150	48585	53500	53000	55800
Extr. Rate, 999.9999 (PERCENT)	0.7751	0.7729	0.775	0.7736	0.7455
Beginning Stocks (1000 MT)	4186	4186	3840	1854	2200
Production (1000 MT)	39646	37550	41463	41000	41600
MY Imports (1000 MT)	5	15	17	15	15
Total Supply (1000 MT)	43837	41751	45320	42869	43815
MY Exports (1000 MT)	20297	20297	21400	20300	20500
Industrial Dom. Cons. (1000 MT)	0	0	0	0	0
Food Use Dom. Cons. (1000 MT)	0	0	0	0	0
Feed Waste Dom. Cons. (1000 MT)	19700	19600	20000	20369	20715
Total Dom. Cons. (1000 MT)	19700	19600	20000	20369	20715
Ending Stocks (1000 MT)	3840	1854	3920	2200	2600
Total Distribution (1000 MT)	43837	41751	45320	42869	43815
(1000 MT) ,(PERCENT)					

PEANUT SECTOR

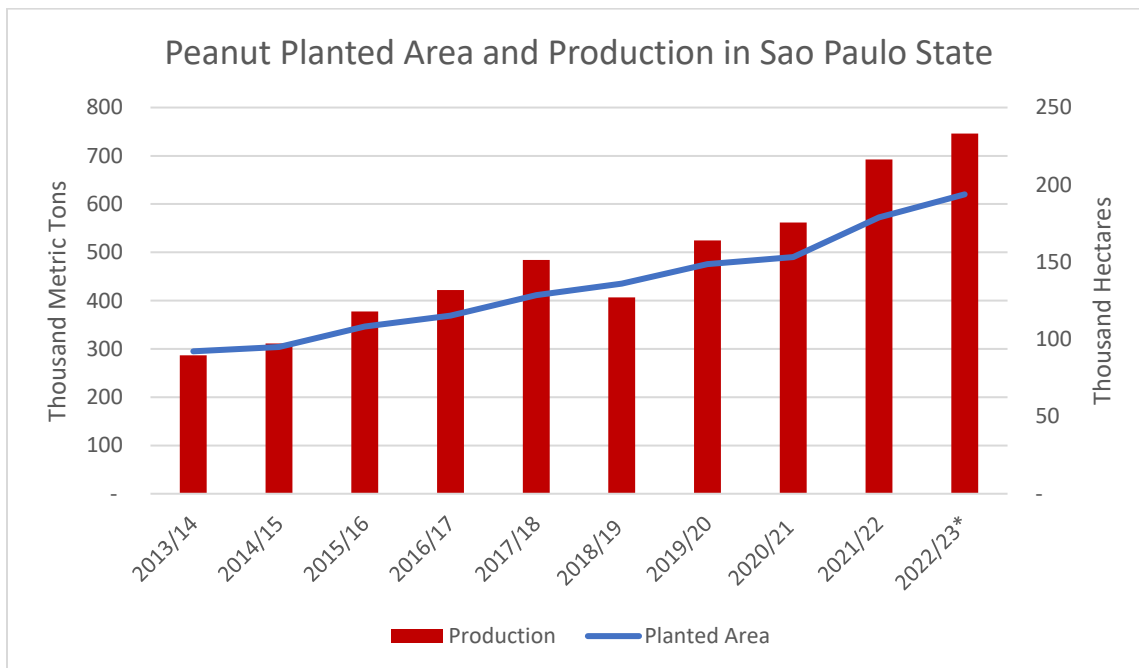
Peanut Production to Continue Expansion in 2023/24

Post forecasts peanut planted area at 220,000 ha in 2023/24, up 20,000 ha on the current season. Post forecasts total peanut production at 820,000 MT in 2023/24, assuming normal weather patterns. The forecast for continued growth of peanut production in Brazil is based on the expectation of good returns from the 2022/23 season, as well as the 2021/22 season. This increase in production is also stimulated by the loss of peanut planted area in Argentina, lack of production growth in the U.S. and increased peanut oil prices. Post assumes a yield of 3.7 MT/ha, on trend for the last 5 years.

Peanut is a grain that grows underground, inside pods that are at the roots of these plants. It is an important ingredient for the food industry, is useful plant in crop rotation, and has considerable commercial value. The state of São Paulo is the main peanut producer in Brazil, responsible for 90 percent of the national production. Most of the peanut area expansion is estimated to be concentrated in Sao Paulo State but also recently increased slightly in Minas Gerais and Mato Grosso do Sul. Producers in Sao Paulo begin planting in October. In 2022/23, CONAB estimates the State of Sao Paulo to produce 773,400 MT and 193,600 hectares of planted area. Most of crops in São Paulo are of varieties developed by the agronomic institute of Campinas (SP), linked to the State Department of Agriculture. Although production in Mato Grosso is currently low, peanut cultivation is an alternative to corn, sesame, and chickpeas for second-season crops, and peanut cultivation may also be viable as a third crop, provided it is on irrigated land.

Figure 16

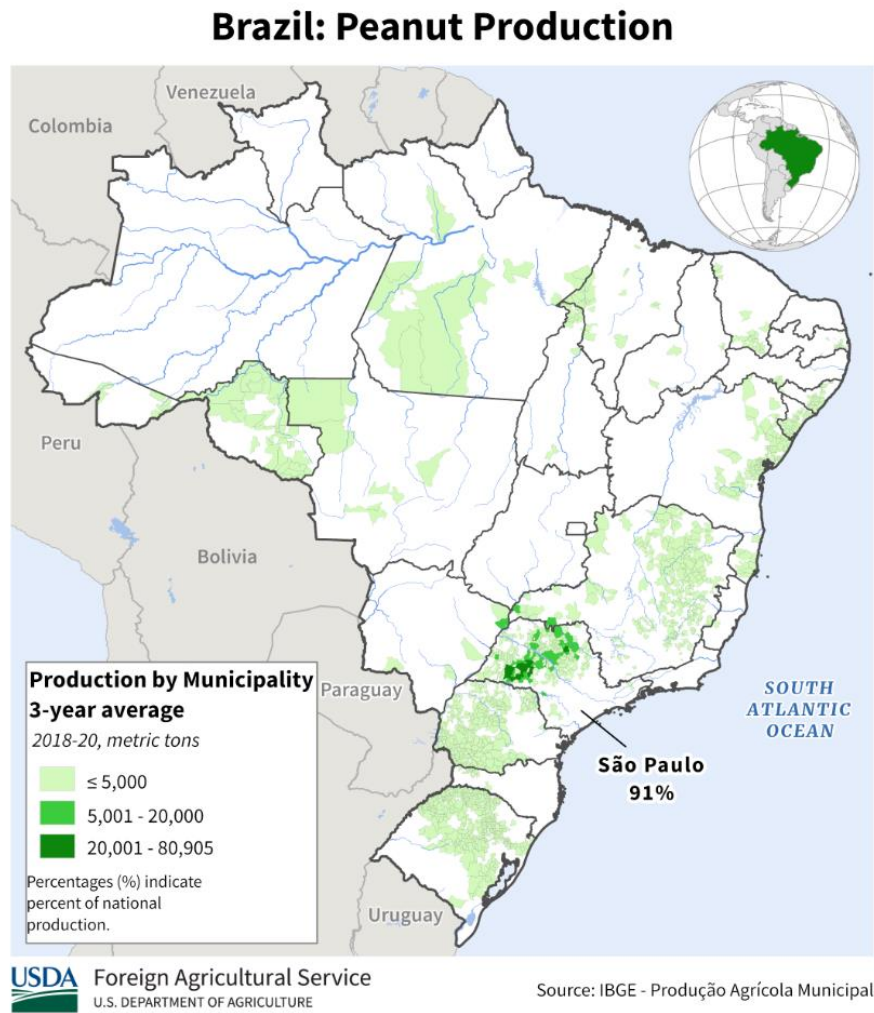
Peanut Planted Area and Production in Sao Paulo State



Source: CONAB

Peanuts are a relatively high-value product, are non-perishable, giving them strong export potential. In addition, there is great demand for Brazilian peanuts, given the Brazilian real devaluation. In addition, peanuts require extra investments in processing; peanuts must be cleaned, dried, and processed shortly after harvest to maintain quality.

Figure 17
Map of Peanut Production in Brazil



Source: Brazilian Institute of Geography and Statistics (IBGE) Data and USDA International Production Assessment Division Map

Peanuts are grown across nine states in Brazil during both the first and second harvest. However, more than 90 percent of the crop is produced in the state of Sao Paulo during the first harvest. The main reason for this is that producers in Sao Paulo state alternate peanut planting during the sugarcane off-season. Peanuts are ideally suited to facilitate soil recovery by fixing nitrogen. Peanuts are also tolerant of various pests, and in fact, peanuts break the cycle of pest and disease infestations, as well as invasive

plant growth in areas cultivated with other crops. Importantly, Sao Paulo state has a more stable climate than other sugarcane growing states in the Northeast of the country. As such, the growing of peanuts in crop rotation is much less popular in Bahia, for example. In addition, producers in Sao Paulo state benefit from being close to the processing, confectionery, and vegetable oil industry, as well as to ports, thereby reducing cost for buyers – whether domestic industry or traders.

2022/23 Peanut Harvest to Expand on Trend

Post revises up the estimate for peanut planted area in 2022/23 from 195,000 ha to 200,000 ha. This is an increase of 10,000 ha from the previous estimate and an increase of 5,000 ha planted in 2021/22. Previously, peanut producers reported to Post about the uncertainty of the market due to the War in Ukraine as Russia and Ukraine were two of the largest destinations for peanuts.

According to news reports, prices have recovered from last year, when in April and May of last year a 25-kilo bag on average was R\$ 50. Today an average price of a bag is R\$ 105. As Brazil cannot consume everything it produces, exports have a direct effect on the price. Russia's War in Ukraine drastically decreased prices because about 70% of exports go to Russia and Ukraine. However, China significantly increased the amount of peanut oil imports from Brazil which raised prices closer to average prices.

Post revises up the 2021/2022 planted area estimate to 195,000 ha. Post also revises up the production estimate in 2021/2022 to 790,000 MT based on increased international demand for peanuts and peanut oil. Of total production this year, 690,000 MT is estimated to be produced in São Paulo State.

Post estimates that the 2022/23 yield will increase to 3.88 MT/ha, similar to the high productivity in 2021/22, when yields benefitted from excellent weather and reached 4.05 MT/ha. Post revises up the 2022/23 peanut production estimate to 776,000 MT, up from the previous estimate of 720,000 MT. This is a 2 percent decrease compared to 790,000 MT of peanuts produced in 2021/22.

Data from the Agricultural Economy Institute (IEA) in Sao Paulo shows that in the last decade, Sao Paulo peanut production grew by an average of 11 percent annually thanks to expansion of planted area and improving yields. In 2009/10, the average yield in the state was 2.6 MT per ha, rising to 3.88 MT/ha expected for this season. Over this timeframe, Sao Paulo state has fully mechanized the peanut harvesting process, which has reduced manual labor, consequently decreasing the cost of production, in addition to substantially increasing operating income. Peanut quality also improved as a quicker harvest reduces the time that the product remains in the field subject to weather events.

Peanuts are also produced in Parana, where they are mostly grown by subsistence farmers, as well as Rio Grande do Sul, Mato Grosso do Sul, Minas Gerais and Mato Grosso. There is huge upside potential in Mato Grosso given the size of available land for farming. Industry producers in Mato Grosso comment that since peanut cultivation is an alternative to corn, sesame, and chickpeas for second-season crops, and peanut cultivation may also be viable as a third crop, provided it is done on an irrigated farm.

Domestic Peanut Consumption Rising on Crush Demand

Brazil consumes domestically about half of its total peanut supply each year. For 2023/24 (January-December 2023), Post forecasts domestic consumption at 492,000 MT, which represents about a 5 percent increase on the estimate for the current marketing year. The increase in domestic consumption will be driven mostly by crush. Processing is forecast to increase by 6 percent to 370,000 MT, while peanut food use is forecast to increase to 121,000 MT in 2023/24, up from 115,000 MT in the current season.

Meanwhile, the peanut crush increase will be driven by a record strong demand for peanut oil exports, which are forecast to produce good returns with the expected continuation of the weakness of the real. Domestic peanut oil consumption is forecast at 6,000 MT in 2023/24, stable to the 2022/23 season. For 2023/24, Post forecasts peanut meal production at 165,000 MT, with a small amount left over for stocks. Peanut meal production is a by-product of oil production and is not driven by demand factors. All of Brazil's peanut meal production is consumed domestically. The livestock industry has been squeezed by the rising feed prices associated with inflation. Post anticipates that as a result, there will be increasing demand for non-soybean meal, including peanut meal and cottonseed mentioned above.

Due to record exports of peanut oil mentioned later in this report, Post revised up the estimate for processing in 2022/23 (January-December 2022) to 350,000 MT from a previous 310,000 MT estimate. Post also revised up the peanut oil export in 2022/23 to 150,000 MT, a 21 percent increase from the previous estimate of 124,000 MT. Post also revised up the peanut meal production in 2022/23 to 156,000 MT, a 40 percent increase from the previous estimate of 111,000 MT. Almost all of this will be destined for animal feed.

For the 2021/22 season, Post also increased peanuts for processing to 330,000 MT. This is based on increased available supplies and a stronger demand from China for peanut oil.

The domestic peanut industry is supported by the Food Technology Institute (ITAL-APTA) which offers quality control with laboratory analysis accredited by the pro-peanut program. The pro-peanut program carries the seal of the Brazilian Association of the Chocolate, Peanut and Candy Industry (ABICAB), which provides certification based on regulations established by the National Health Surveillance Agency (ANVISA) and the Ministry of Agriculture, Livestock and Supply (MAPA). ITAL also offers support for technical research, including on sustainability of production, such as the reuse of industry surplus products like bark and oil to manufacture new by-products. ITAL facilitates the promotion and sale of equipment to small and medium-size processors.

Shelled Peanuts and Peanut Oil See New Markets and Growth

Shelled Peanut Exports

Although Brazil does not rank among the top ten peanut producers globally, it's the world's fifth-largest exporter of shelled peanuts. Over the last decade, Brazil's peanut exports grew exponentially, rising to an estimated 389,000 MT in 2021/22, up more than four times from 77,000 MT in 2010/11. Most of Brazil's peanut exports are of the shelled variety (HS 120242) and are destined for buyers in Russia, the

EU-27, and Algeria. In 2022, more than 285,000 MT of peanuts were exported, an increase of 11 percent from the previous year. In 2022 \$332 million worth of peanuts were exported, only a 0.6 percent increase from 2021. This reflects the decrease in prices from the higher than average levels in 2020 and 2021 due to COVID-19.

Figure 18
Brazil's Peanut Exports

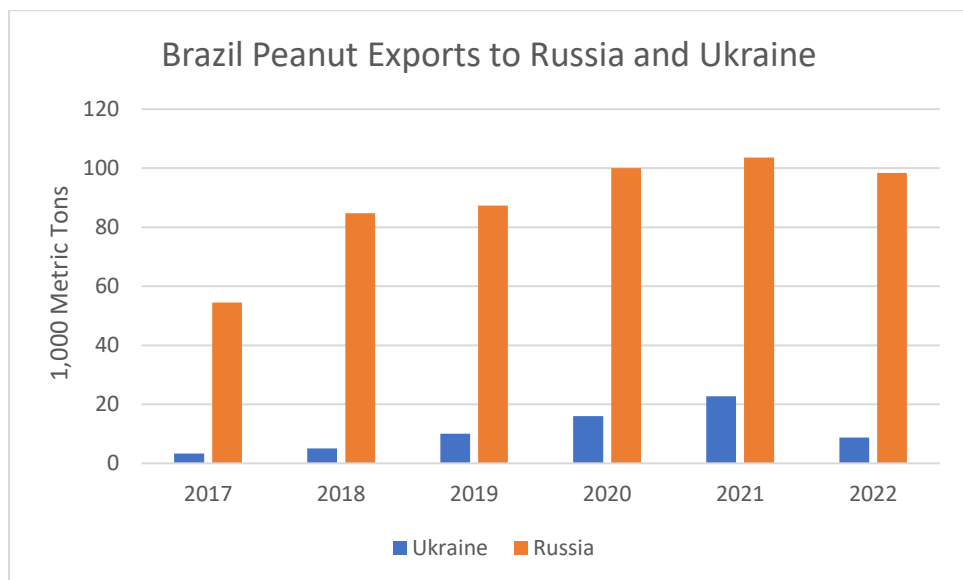


Source: Foreign Trade Secretariat, Ministry of Economy (SECEX) data, Post Brasilia chart

Brazil's exported market was impacted by the war in Ukraine as about 50 percent of all national production is destined for just two countries: Russia and Ukraine. Over the last five years, Ukraine has been a prominent importer of peanuts from Brazil, especially gaining market size in 2020 and 2021 when they imported 16,000 MT and 22,000 MT respectively. However, because of the Russian invasion, exports to Ukraine decreased by 61%. Brazilian exporters have found new markets for peanuts exports despite the decrease in market share to Russia and Ukraine. Exports to the United Kingdom have increased from 5,593 MT in 2021 to 17,060 MT in 2022, exports to Spain have increased from 6,465 MT in 2021 to 9,947 in 2022, and exports to Poland increased from 4,543 MT in 2021 to 9,601 MT in 2022.

Figure 19

Brazil's Peanut Exports to Russia and Ukraine

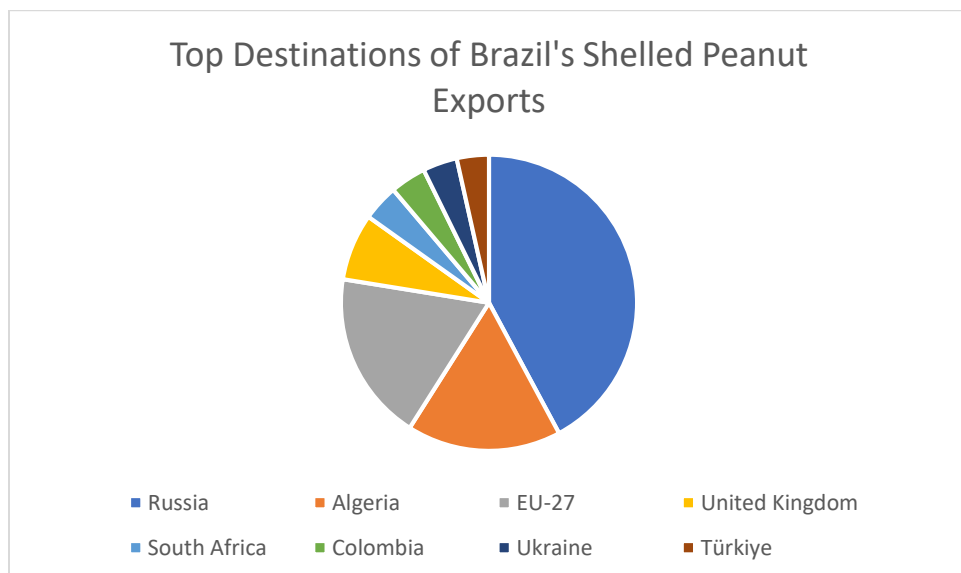


Source: Trade Data Monitor, Post Brasilia Chart

Post increased the forecast for peanut export to 335,000 MT in 2023/24, up from 300,000 MT estimated for 2022/23. As already outlined in the production section, in recent years, Brazilian growers have invested in planting, harvesting, and processing equipment, which has resulted in higher yields and better-quality products. As a result, Brazil often competes directly with Argentina and the United States in the global peanut market.

Figure 20

Top Destinations for Brazil's Shelled Peanut Exports in 2022



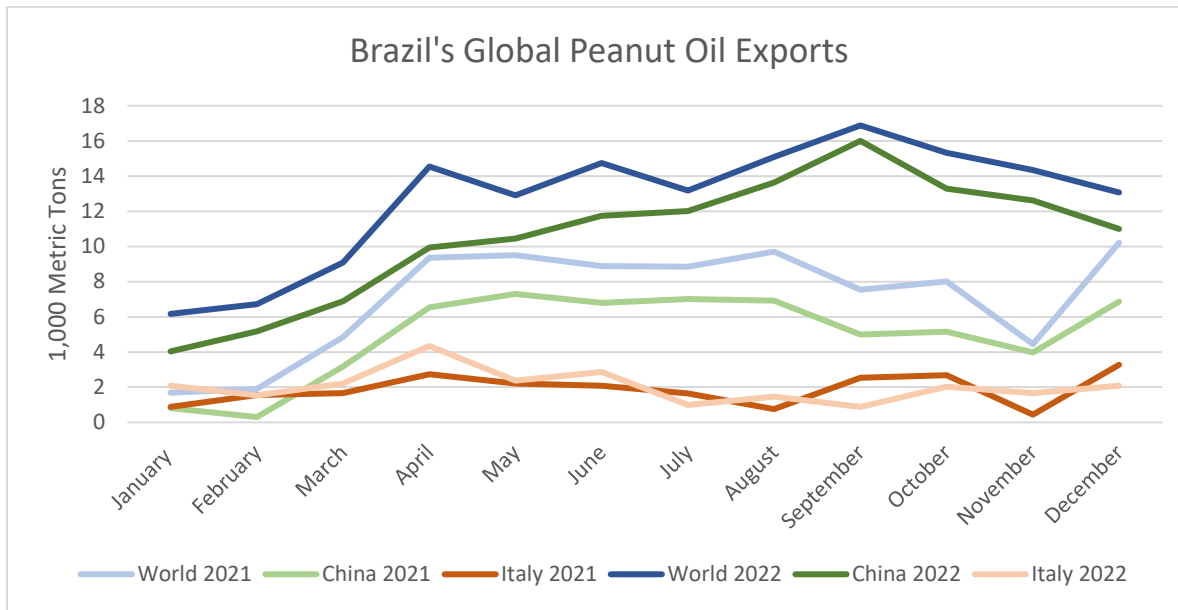
Source: Trade Data Monitor, Post Brasilia Chart

Peanut Oil Exports

When it comes to trade in peanut processed products, Brazil does not export or import peanut meal. Conversely, the majority of Brazil's peanut oil production is exported. Similar to shelled peanut exports, Brazil has made substantial inroads in the global peanut oil market, emerging as the second largest global exporter of peanut oil during the 2022/23 season, after South Africa and surpassing India for the first time. In 2021/22, Brazil exported a record-setting 152,000 MT of oil, fueled by the favorable exchange rate and increased prices. The main destinations for peanut oil were China, accounting for 83 percent of all peanut oil exports, and Italy with 15 percent. This is compared to 85,000 MT of oil in 2020/21, an increase of 79 percent. In 2022/23, Brazil exported 126,700 MT of peanut oil to China compared to 59,800 MT in 2021/22, an increase of 111 percent. In 2021/22, Brazil exported 24,500 MT of peanut oil to Italy compared to 22,500 MT of peanut oil in 2021/22, an increase of 9 percent. Post revised up the peanut oil export in 2022/23 to 150,000 MT, a 21 percent increase from the previous estimate of 124,000 MT. Post forecasts ending stocks for peanuts, peanut oil and peanut meal to remain low, on trend with the five-year average.

Figure 21

Brazil's Global Peanut Oil Exports to World



Source: Trade Data Monitor, Post Brasilia Chart

Figure 22

Brazil's Peanut Oil Exports



Source: Trade Data Monitor, Post Brasilia Chart

Table 4*Peanut Production, Supply, Distribution*

Oilseed, Peanut	2021/2022		2022/2023		2023/2024
Market Year Begins	Jan 2022		Jan 2023		Jan 2024
Brazil	USDA Official	New Post	USDA Official	New Post	New Post
Area Planted (1000 HA)	195	195	205	200	220
Area Harvested (1000 HA)	195	195	205	200	220
Beginning Stocks (1000 MT)	11	11	11	3	15
Production (1000 MT)	718	790	750	776	820
MY Imports (1000 MT)	2	2	5	2	2
Total Supply (1000 MT)	731	803	766	781	837
MY Exports (1000 MT)	389	389	375	300	335
Crush (1000 MT)	255	330	300	350	370
Food Use Dom. Cons. (1000 MT)	75	80	76	115	121
Feed Waste Dom. Cons. (1000 MT)	1	1	1	1	1
Total Dom. Cons. (1000 MT)	331	411	377	466	492
Ending Stocks (1000 MT)	11	3	14	15	10
Total Distribution (1000 MT)	731	803	766	781	837
Yield (MT/HA)	3.6821	4.0513	3.6585	3.88	3.7273
(1000 HA) ,(1000 MT) ,(MT/HA)					

Table 5*Peanut Oil Production, Supply, Distribution*

Oil, Peanut	2021/2022		2022/2023		2023/2024
Market Year Begins	Jan 2022		Jan 2023		Jan 2024
Brazil	USDA Official	New Post	USDA Official	New Post	New Post
Crush (1000 MT)	255	330	300	350	370
Extr. Rate, 999.9999 (PERCENT)	0.3686	0.4758	0.37	0.4457	0.4486
Beginning Stocks (1000 MT)	2	2	2	2	2
Production (1000 MT)	94	157	111	156	166
MY Imports (1000 MT)	0	0	0	0	0
Total Supply (1000 MT)	96	159	113	158	168
MY Exports (1000 MT)	90	152	105	150	160
Industrial Dom. Cons. (1000 MT)	0	0	0	0	0
Food Use Dom. Cons. (1000 MT)	4	5	5	6	6
Feed Waste Dom. Cons. (1000 MT)	0	0	0	0	0
Total Dom. Cons. (1000 MT)	4	5	5	6	6
Ending Stocks (1000 MT)	2	2	3	2	2
Total Distribution (1000 MT)	96	159	113	158	168
(1000 MT) ,(PERCENT)					

Table 6*Peanut Meal Production, Supply, Distribution*

Meal, Peanut	2021/2022		2022/2023		2023/2024
Market Year Begins	Jan 2022		Jan 2023		Jan 2024
Brazil	USDA Official	New Post	USDA Official	New Post	New Post
Crush (1000 MT)	255	330	300	350	370
Extr. Rate, 999.9999 (PERCENT)	0.3725	0.4061	0.3733	0.4457	0.4459
Beginning Stocks (1000 MT)	0	0	0	0	0
Production (1000 MT)	95	134	112	156	165
MY Imports (1000 MT)	0	0	0	0	0
Total Supply (1000 MT)	95	134	112	156	165
MY Exports (1000 MT)	1	1	1	1	1
Industrial Dom. Cons. (1000 MT)	0	0	0	0	0
Food Use Dom. Cons. (1000 MT)	0	0	0	0	0
Feed Waste Dom. Cons. (1000 MT)	94	133	111	155	164
Total Dom. Cons. (1000 MT)	94	133	111	155	164
Ending Stocks (1000 MT)	0	0	0	0	0
Total Distribution (1000 MT)	95	134	112	156	165
(1000 MT) ,(PERCENT)					

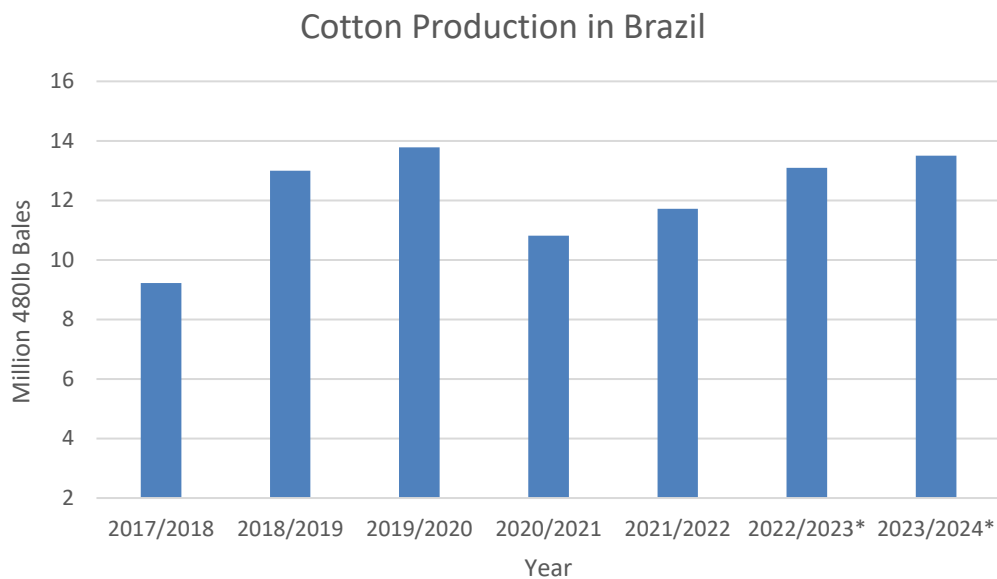
COTTONSEED SECTOR

Cottonseed 2022/23 and 2023/24 Production to Follow Global Economic Trends

Cottonseed production is intrinsically linked to cotton production, with growers mainly focused on proceeds generated by cotton lint, rather than cottonseed. In the last decade, Brazil's cotton sector saw remarkable growth; particularly, in the last six seasons. Post believes that cotton production expansion was driven by the availability of ample arable land in key growing states, equipment capacity, and rising global cotton consumption, which, in turn, spurred global cotton prices. However, economic and trade challenges caused by the Covid-19 pandemic and more recently, the war in Ukraine and rising global inflation, have stymied the growth of the sector over the past two years. Brazil's cotton sector generally exports about 70 percent of its cotton lint production, making the sector very focused on external demand drivers.

Figure 23

Cotton Production in Brazil

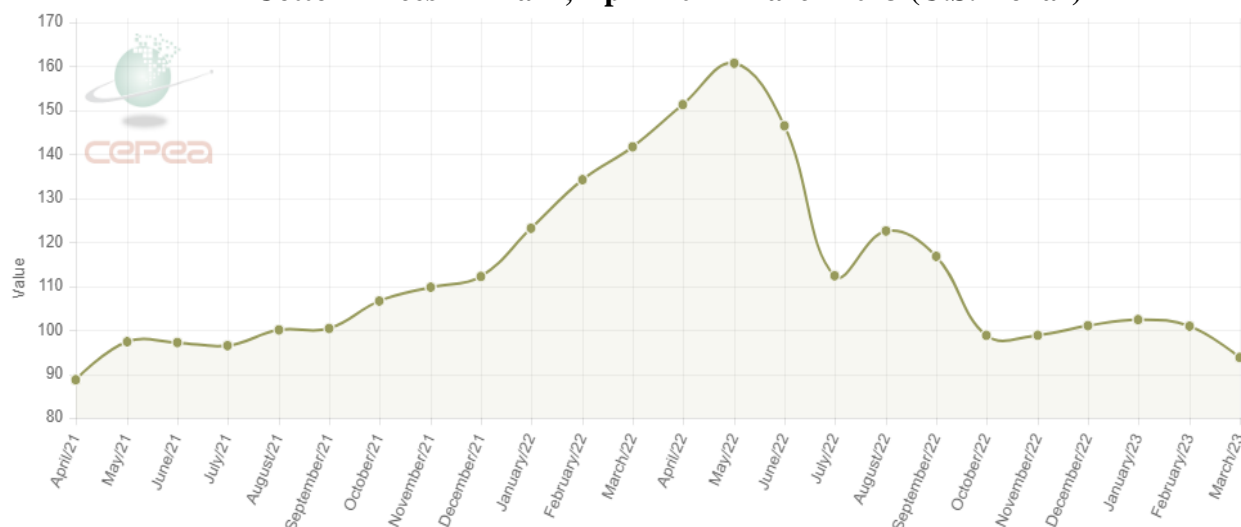


Source: FAS Brazil PSD (*post estimate/forecast)

Post forecasts Brazil's 2023/24 cotton planted area to raise slightly to 1.69 million hectares. The forecast represents about a three percent increase on the current season and is expected to remain well above the planted area just four years ago. Post anticipates that next season, growers in Brazil will increase cotton area due to the overall favorable conditions for cotton cultivation in Brazil, with producers using advanced technologies, machinery, and pest control techniques to ensure good harvests. Due to the expenses associated with producing and processing cotton, it is important for farmers to recover the costs of their investments. Therefore, producers tend to reserve their best fields and supply rations for cotton areas.

Figure 24
Cotton Prices in Brazil

Cotton Prices in Brazil, April 2021-March 2023 (U.S. Dollar)



Source: CEPEA

The current price outlook is not especially favorable for cotton. Following a trend of rising prices that peaked at 160 cents per pound in May 2022, Brazil's cotton prices started to drop. By the end of March, cotton was trading at 87.50 cents per pound, the lowest point since April 2021. Prices have been pressured downward by ample stocks, as well as prospects of weaker demand due to inflation and fears of recession. However, some traders remain optimistic that the situation will improve. A weak exchange rate continues motivate producers to plant cotton, and costs of inputs, which had spiked in 2022 due to global trade disruptions from the war in Ukraine, have been stabilizing. In addition, the sector is already set up with the necessary equipment to harvest up to 13.78 million bales (3 MMT) of cotton, as evidenced by the 2019/20 season.

It's important to note that the cost of cotton production remains higher than that of other crops, such as corn and soy, due to its greater demand for inputs such as fertilizers. Therefore, Post anticipates that the cotton planted will not see the same great levels of expansion as these other crops. (For an expanded discussion on cotton outlook please see Cotton 2023 Annual Report).

Post forecasts 2023/24 cottonseed production at 4.4 MMT, based on a yield of 2.6 MT/ha. This represents a production increase of 4.7 percent and yield increase of about two percent on the current season. Post yield and production forecasts for 2023/24 are based on steady yield improvement due to use inputs, such as Genetically Engineered (GE) seeds, as well as chemicals and fertilizers, and assumption of normal weather conditions.

Post raised the estimate for 2022/23 cotton area planted slightly, to 1.65 million ha. The planted area estimate represents an increase of about one percent from the 2021/22 season. Post estimates 2022/23 cottonseed production at 4.2 MMT, on a yield of 2.55 MT/ha. Due to favorable climatic conditions, Bahia and other states have a positive outlook for this year's cotton crop development. However, Mato

Grosso, the largest cotton-producing state in Brazil, is behind schedule due to delays harvesting soy. By the time soy was harvested in some areas, it was too late for cotton so corn was planted instead. The Post yield and production estimates may be revised further pending weather during crop development in the April-June timeframe.

Cottonseed Oil and Meal Uses in Brazil

As mentioned above, cotton lint is the principal product and economic driver for planting cotton in Brazil. However, byproducts of cotton processing also have value and are not discarded. Once extracted from the cotton lint, cottonseeds can be crushed similar to other oilseeds. The byproducts, cottonseed oil and meal, have various uses. Cottonseed oil is the higher value product. It used as a cooking oil, in food processing, and as a biofuel. Cottonseed meal, meanwhile, is principally used as in animal feed where it adds bulk, fiber, and nutrients.

Table 7*Cottonseed Production, Supply, Distribution*

Oilseed, Cottonseed Market Year Begins	2021/2022		2022/2023		2023/2024
	Jan 2022		Jan 2023		Jan 2024
Brazil	USDA Official	New Post	USDA Official	New Post	New Post
Area Planted (Cotton) (1000 HA)	1600	1630	1630	1650	1690
Area Harvested (Cotton) (1000 HA)	1600	1630	1630	1650	1690
Seed to Lint Ratio (RATIO)	0	0	0	0	0
Beginning Stocks (1000 MT)	87	87	92	102	77
Production (1000 MT)	3891	4050	4316	4200	4400
MY Imports (1000 MT)	0	0	0	0	0
Total Supply (1000 MT)	3978	4137	4408	4302	4477
MY Exports (1000 MT)	1	5	20	15	20
Crush (1000 MT)	3725	3800	4125	4000	4100
Food Use Dom. Cons. (1000 MT)	0	0	0	0	0
Feed Waste Dom. Cons. (1000 MT)	160	230	200	210	260
Total Dom. Cons. (1000 MT)	3885	4030	4325	4210	4360
Ending Stocks (1000 MT)	92	102	63	77	97
Total Distribution (1000 MT)	3978	4137	4408	4302	4477
Yield (MT/HA)	2.4319	2.4847	2.6479	2.5455	2.6036
(1000 HA) ,(RATIO) ,(1000 MT) ,(MT/HA)					

Table 8*Cottonseed Oil Production, Supply, Distribution*

Oil, Cottonseed	2021/2022		2022/2023		2023/2024
Market Year Begins	Jan 2022		Jan 2023		Jan 2024
Brazil	USDA Official	New Post	USDA Official	New Post	New Post
Crush (1000 MT)	3725	3800	4125	4000	4100
Extr. Rate, 999.9999 (PERCENT)	0.16	0.1605	0.16	0.16	0.161
Beginning Stocks (1000 MT)	18	18	20	25	27
Production (1000 MT)	596	610	660	640	660
MY Imports (1000 MT)	1	2	4	2	2
Total Supply (1000 MT)	615	630	684	667	689
MY Exports (1000 MT)	5	0	6	0	0
Industrial Dom. Cons. (1000 MT)	375	385	435	430	450
Food Use Dom. Cons. (1000 MT)	215	220	215	210	220
Feed Waste Dom. Cons. (1000 MT)	0	0	0	0	0
Total Dom. Cons. (1000 MT)	590	605	650	640	670
Ending Stocks (1000 MT)	20	25	28	27	19
Total Distribution (1000 MT)	615	630	684	667	689
(1000 MT) ,(PERCENT)					

Table 9*Cottonseed Meal Production, Supply, Distribution*

Meal, Cottonseed Market Year Begins	2021/2022		2022/2023		2023/2024
	Jan 2022		Jan 2023		Jan 2024
	USDA Official	New Post	USDA Official	New Post	New Post
Brazil					
Crush (1000 MT)	3725	3800	4125	4000	4100
Extr. Rate, 999.9999 (PERCENT)	0.4754	0.4737	0.4761	0.485	0.4878
Beginning Stocks (1000 MT)	7	7	9	11	11
Production (1000 MT)	1771	1800	1964	1940	2000
MY Imports (1000 MT)	1	0	0	0	0
Total Supply (1000 MT)	1779	1807	1973	1951	2011
MY Exports (1000 MT)	0	0	0	0	0
Industrial Dom. Cons. (1000 MT)	0	0	0	0	0
Food Use Dom. Cons. (1000 MT)	0	0	0	0	0
Feed Waste Dom. Cons. (1000 MT)	1770	1796	1960	1940	2000
Total Dom. Cons. (1000 MT)	1770	1796	1960	1940	2000
Ending Stocks (1000 MT)	9	11	13	11	11
Total Distribution (1000 MT)	1779	1807	1973	1951	2011
(1000 MT) ,(PERCENT)					

Attachments:

No Attachments