



# Oil Crops Outlook: February 2022

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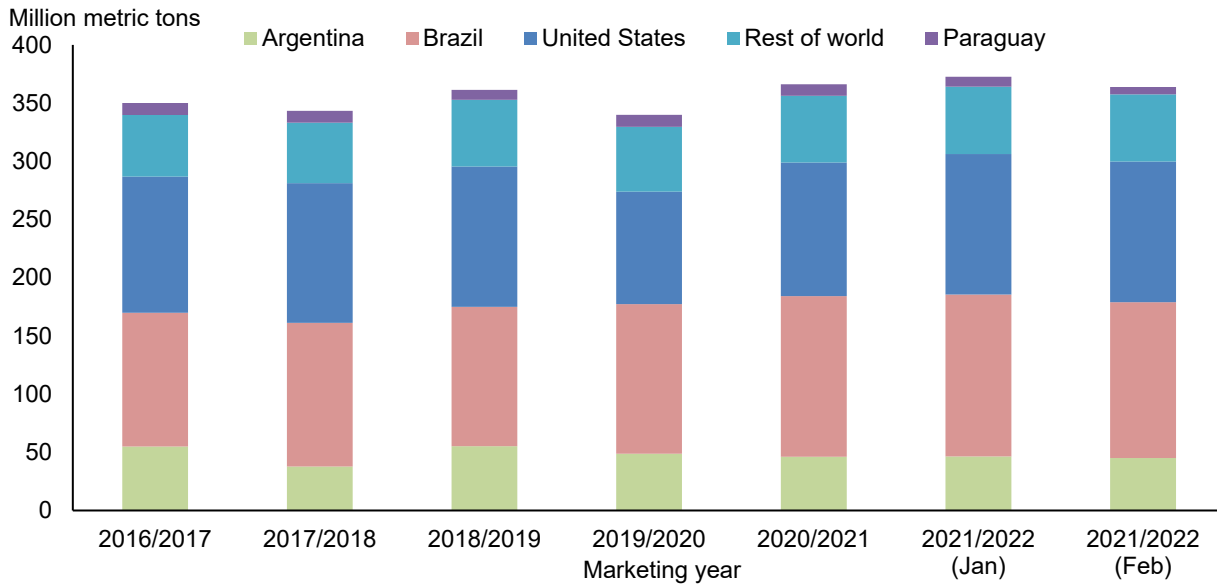
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## South American Dry Weather Sparks a Rally in U.S. Soybean Prices

The global soybean production forecast for 2021/22 is lowered by 8.7 million metric tons this month to 363.86 million metric tons. Heat and dryness through January in major South American soybean producing countries is expected to impact soybean yield potential. Estimates for Argentine, Brazilian, and Paraguayan soybean crops are reduced to 45 million, 134 million, and 6.3 million metric tons, respectively. The anticipated reduction in soybean output in those countries is expected to lower exports by a combined 5.7 million metric tons, with Argentina and Paraguay both down 1.1 million and Brazil down 3.5 million. In addition to reductions in the export program, the South American soybean crush forecast is also reduced 2.4 million metric tons. Lower South American soybean supply has rallied prices across the soybean complex, leading to a reduction in global soybean demand. China's soybean imports are down this month from 100 million metric tons to 97 million with slower-than-anticipated crush and meal demand. Consequently, with a reduction of the soybean supply and some cut in the global demand, world ending stocks are lowered this month by 2.4 million metric tons to 92.83 million.

Figure 1

### Global soybean production



Source: USDA, Economic Research Service using data from USDA, Foreign Agricultural Service, *Production, Supply, and Distribution* database.

# Domestic Outlook

## U.S. Prices Rally with Declining Prospects for South America Soybean Crops

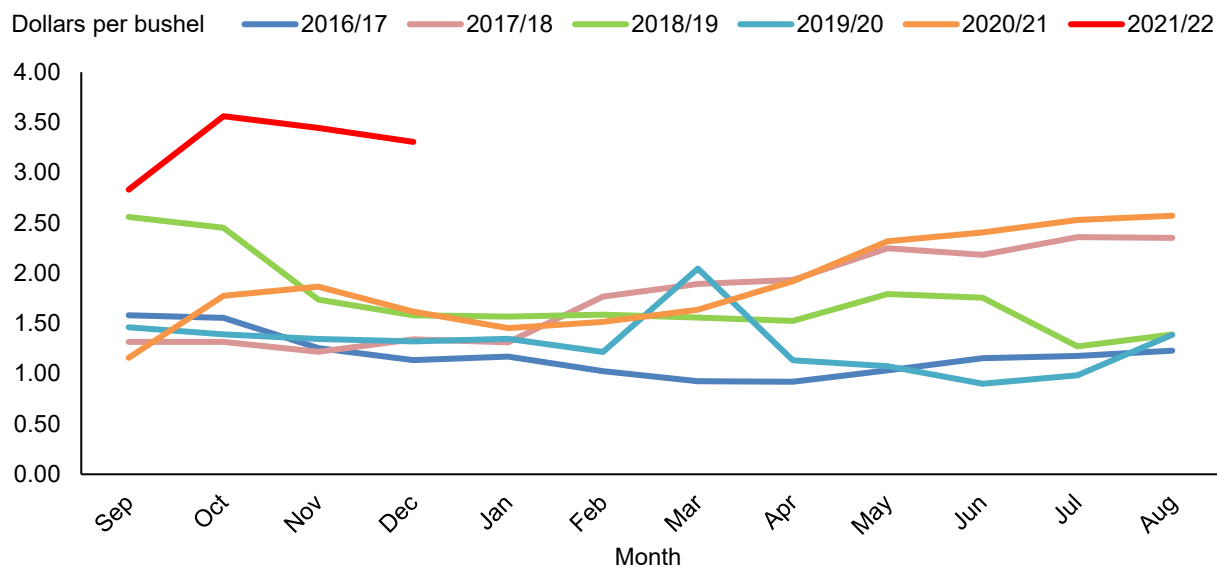
Domestic soybean prices strengthened during January as the drought in South America further damaged soybean crops. Dryness continues in the southern provinces of Brazil and major growing regions of Argentina and Paraguay, dimming the South American soybean production prospect. Tightening global supplies are affecting the U.S. market as a consequence. In January 2022, the value of soybeans at the Central Illinois country elevators rose over \$1, reaching an average of \$13.81 per bushel for the month. This overall impact led USDA to revise the 2021/22 U.S. average farm price forecast to \$13.00 per bushel from \$12.60 last month.

The outlook for a lower South American soybean supply presents opportunities for U.S. exporters and crushers. During the past 2 weeks, U.S. exporters sold large volumes of soybeans for the current season as well as for 2022/23, suggesting that consumers in China and other trade partners are reacting to the much-lower-than expected South American export program. Nevertheless, the higher cost of existing supplies may trigger a reduction in demand for some major importers. Hence, the 2021/22 U.S. soybean export forecast is seen unchanged this month at 2.05 million bushels.

In contrast, the domestic soybean crush continues to run at a strong pace that is supported by a strong crush margin. Despite the rally in cash market prices, U.S. processors have maintained the ability to originate soybeans. The rally is closely followed by rising product prices, maintaining healthy processing margins. As depicted in figure 2, crush margins for Central Illinois processors are the best in the recent history, averaging close to \$3.30 per bushel in the first four months of the 2021/22 marketing year.

Figure 2

**Historical soybean crush margins, Central Illinois**



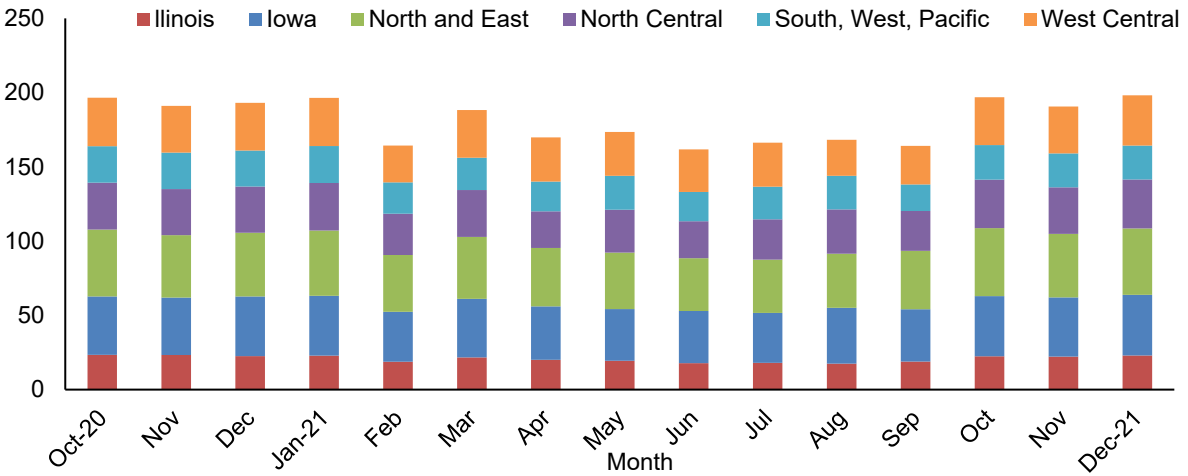
Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, *Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks* and Agricultural Marketing Service, *Central Illinois Soybean Processor Bids*.

U.S. soybean crush volume hit a record of 198 million bushels in December 2021, up 3 percent compared with a year ago and 4 percent higher than in November. Record monthly crush volumes were observed in December 2021 for three regions: Iowa, North Central, and West Central at 40.81, 32.96, and 33.87 million bushels, respectively. The North and East region crushed 44.68 million bushels of soybeans, slightly below the October 2021 record. The South, West, and Pacific region crushed 22.89 million bushels versus the previous record of 24.85 million bushels in January 2021. Lastly, Illinois processors crushed 23.03 million bushels in December, just shy of the October 2020 record of 23.39 million bushels. As a result, 2021/22 soybean crush forecast is revised up 25 million bushels to 2.215 million. With forecasts for a higher crush and unchanged exports, ending stocks for 2021/22 U.S. soybeans are reduced this month to 325 million bushels.

Figure 3

**U.S. Soybean crushing – regional**

Million bushels



Note: **North and East** includes Indiana, Kentucky, Maryland, Ohio, Pennsylvania, and Virginia; **North Central** includes Michigan, Minnesota, North Dakota, and South Dakota; **South, West, and Pacific** includes Alabama, Arkansas, California, Georgia, Louisiana, Mississippi, North Carolina, and South Carolina; **West Central** includes Kansas, Missouri, and Nebraska.

Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, *Fats and Oils: Oilseed Crushings*.

Given the record crush volume in December 2021, it would be interesting to consider potential crush capacity under existing operating plant facilities. If processors in all regions crush a record volume of soybeans in a 31-day month, a monthly crush volume of 201.67 million bushels would be implied along with a daily crush rate of 6.51 million bushels. If it is further considered that processors operate their facilities between 87 and 92 percent of capacity, this would translate to an average daily crush capacity rate ranging from 7.47 million bushels to 7.07 million bushels, respectively. Since processors require downtime for maintenance, a working base of 345 days can be used to extrapolate a U.S. soybean crush capacity estimate in the range of 2.45 to 2.6 billion bushels.

Support for a strong crush rate is driven by strong demand for both soybean meal and oil. This month, USDA further reduces its forecast of the 2021/22 soybean meal extraction rate to 46.9 pounds per bushel as the October and December data reported by USDA, National Agricultural Statistical Services (NASS) is lower than previously expected. The increase in soybean crush more than offsets a reduction in the meal yield, resulting in a higher domestic soybean meal production forecast of 400,000 short tons this month to a record level of 51.9 million. This increase of meal supply is projected to be absorbed by the global soybean meal export market.

Hence, 2021/22 U.S. soybean meal exports are expected to reach 14.4 million tons as tighter global soybean meal supply is expected to reduce competition with South America.

Strengthening domestic soybean meal prices led to a higher 2021/22 season average price forecast of \$410 per short ton compared with \$375 last month. Despite higher prices, domestic meal demand remains steady. The first-quarter disappearance of soybean meal totaled 9.9 million short tons, a 1-percent decrease from the first-quarter of the previous marketing year. However, the outlook for soybean meal demand looks better as supplies of alternative proteins (e.g., canola meal, sunflower meal, and cottonseed meal) are lower.

Like soybean meal prices, soybean oil prices have also strengthened as global supplies have tightened. Soybean oil prices remained robust in December despite the higher crushing rate. USDA projects the 2021/22 average soybean oil price at 66 cents per pound, a 1-cent increase from last month's forecast.

The higher soybean crush forecast leads to a 295-million-pound upward revision of the soybean oil production forecast to 26.05 billion pounds. The domestic soybean oil consumption forecast was also revised up 135 million pounds and is expected to reach 14.29 billion pounds. The increase in disappearance of soybean oil in the food, feed, and other industrial category is attributed to the diminishing supply of minor oils, especially sunflowerseed oil and cottonseed oil. Soybean oil is the most competitive oil to use in the food, feed, and other industrial usage. Soybean oil disappearance for biofuels is unchanged this month at 11 billion pounds.

# International Outlook

## Global Soybean Production Hindered by Weather in South America

Dry conditions across Argentina, southern Brazil, and eastern Paraguay have resulted in an 8.7-million-metric-ton reduction in the South American soybean production estimate. Major soybean producing states in northern Brazil received normal levels of precipitation during January while rainfall was more sporadic in the southern producing states. Much like most of South America, extreme temperatures thwarted the much-needed precipitation—particularly in Paraná, the western portion of Rio Grande Do Sul, and south-western Mato Grosso Do Sul. Historically low precipitation was recorded in Paraná during December 2021 and January 2022, and extremely high temperatures—ranging from 30 to 40 degrees Celsius—covered the region for most of January. The scant rainfall helped stabilize the 2021/22 crop; however, not much improvement was made as extreme heat did little to improve soil moisture. A reported 40 percent of crops in Rio Grande Do Sul are flowering and filling; thus, any additional rainfall in the coming weeks would be timely for crops in this region.

Crop conditions in the northern soybean producing states remain favorable with harvest progressing ahead of last year and ahead of the 5-year average in Mato Grosso and Goiás. Some early harvest reports indicate above-average soybean yields in these states. For perspective, Mato Grosso Institute of Agricultural Economics (IMEA) reported that 42 percent of the soybean crop in Mato Grosso was harvested as of February 5, 2022, 33 percentage points higher than this time last year. Overall, Brazil has harvested 17 percent of the 2021/22 soybean crop as of February 5, 2022, which is higher than the 5-year average of 10 percent.

Taking current crop conditions into consideration, the 2021/22 Brazilian soybean production forecast was lowered by 5 million metric tons to 134 million. Although this production estimate is not expected to eclipse the record 2020/21 crop, it is merely 4 million metric tons shy. A slight reduction of 300,000 metric tons is expected for the 2021/22 Brazilian soybean crush, now estimated at 46.9 million metric tons. Soybean exports are forecast down by 3.5 million metric tons to 90.5 million in response to the lower domestic supply.

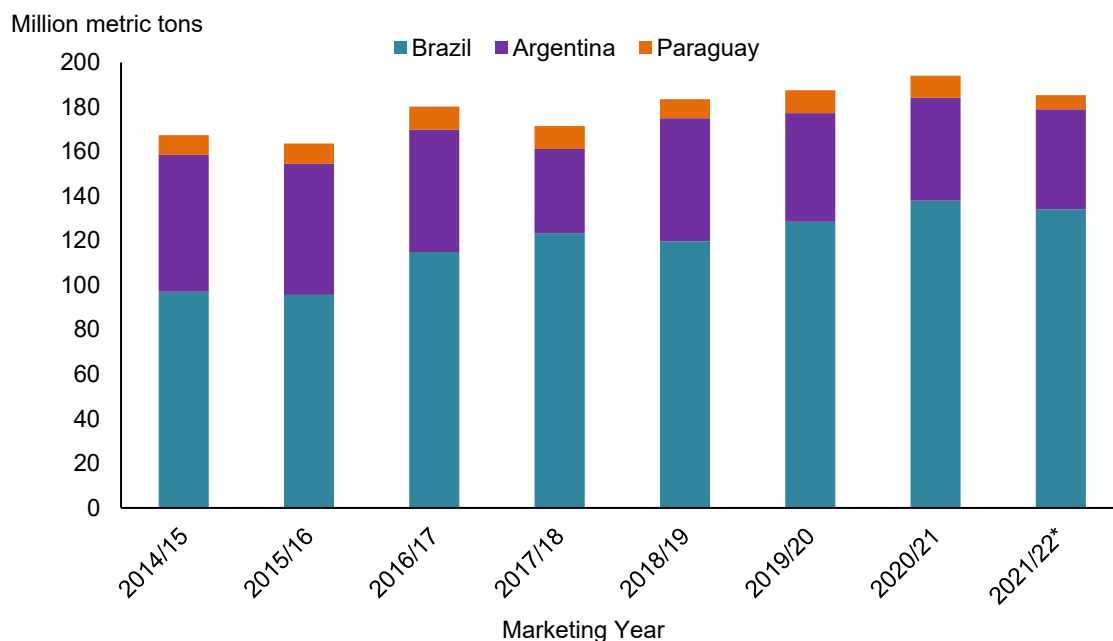
A prominent loss of 2.2 million metric tons is expected in Paraguayan soybean production as the lingering drought and extreme temperatures have damaged a large portion of the crop. Harvested acreage is projected to decline by 400,000 hectares to 2.8 million, resulting in a production estimate of 6.3 million metric tons. With a lower volume of soybeans available, the

2021/22 soybean export forecast is lowered by 1.1 million metric tons to 4.15 million. This reduction is expected to impact Paraguay’s main trade partner, Argentina. Additionally, the 2021/22 soybean crush estimate is reduced by 0.9 million metric tons to 2.2 million.

Despite an abundance of rainfall in Argentina during the latter weeks of January 2022, the blistering heat wave that swept across the country is expected to lower the average 2021/22 soybean yield to 2.78 metric tons per hectare. This corresponds to a 1.5-million-metric-ton decrease in the soybean production forecast to 45 million metric tons. The reprieve from the heat and drought stress was seen as particularly beneficial for late-planted crops now entering the critical growing phase—roughly 50 percent of the 2021/22 crop. Weather conditions will be critical to the development of these crops in the coming weeks.

In anticipation of lower domestic production and imports, the 2021/22 Argentine crush forecast was reduced by 1.2 million metric tons to 40 million. In turn, soybean meal and oil production are reduced by 0.94 and 0.25 million metric tons, respectively. This is reflected in lower export forecasts, down by 0.8 million metric tons for soybean meal and 0.1 million metric tons for soybean oil.

Figure 4  
**Brazilian, Argentine, and Paraguayan soybean production**



Note: Asterisk (\*) denotes forecasts.  
 Source: USDA, Economic Research Service using data from USDA, Foreign Agricultural Service, *Production, Supply, and Distribution* database.



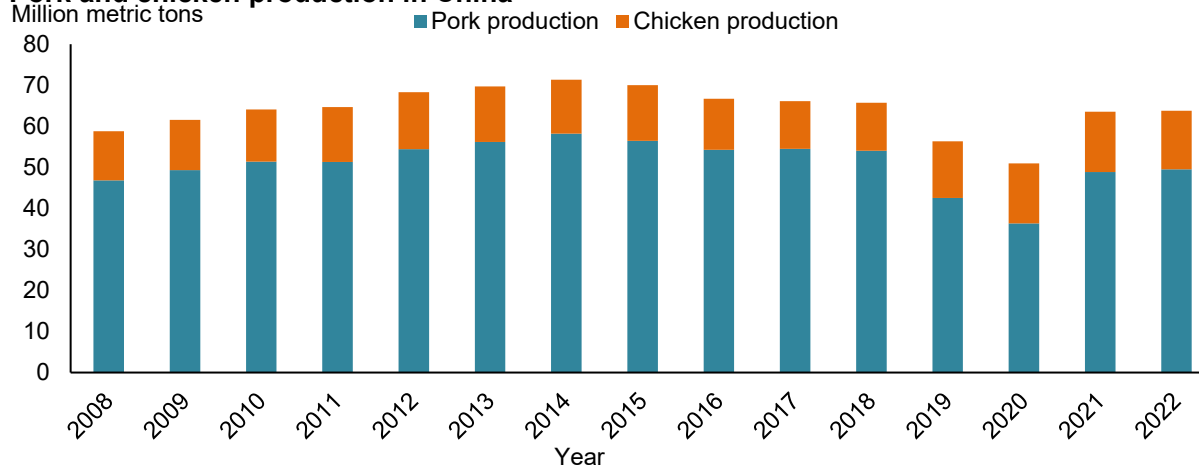
## Economic Factors Contributing to Slow Soybean Meal Demand in China

Slow economic growth in China has impacted domestic meat demand, specifically chicken and pork, and consequently, production. Although African Swine Fever (ASF) resulted in lower domestic pork production relative to prior years, it has rebounded in 2021. However, as shown in figure 5, pork and chicken production is expected to remain relatively unchanged in 2022, which is slightly lower than the combined production 1 decade ago (2012).

Figure 5

### Pork and chicken production in China

Million metric tons



Source: USDA, Economic Research Service using data from USDA, Foreign Agricultural Service, *Production, Supply, and Distribution* database.

This is important when considering soybean demand. China is the largest importer of soybeans and relies heavily on the meal from crushed soybeans in feed for livestock production. Poor crush margins—depicting extreme volatility, dipping into negative values at times—have slowed the crush rate and, consequently, October 2021–January 2022 imports. As a result, both the soybean crush and import forecasts have been lowered for China by 3 million metric tons to 94 million and 97 million metric tons, respectively. As suggested by pork and chicken production estimates, the projected 2021/22 soybean crush volume remains relatively unchanged from 2020/21, up 1 million metric tons. The reduced crush forecast has resulted in a lower soybean oil production forecast of 16.85 million metric tons, down 540,000. This is offset by lower domestic soybean oil consumption and lower ending stocks.

## Indonesian Palm Oil Exports Trimmed to Cool Domestic Oil Prices

The Government of Indonesia implemented new palm oil export requirements at the end of January 2022 in response to surging domestic oil prices that are up more than 30 percent since early 2021. The new Domestic Market Obligation policy requires exporters of palm oil products to sell 20 percent of their planned total export volume domestically. This obligation will be enforced by requiring exporters to submit several documents, including an Export Plan and Domestic Distribution Plan to obtain export approval. This policy seeks to control the domestic supply of vegetable oil and their prices. Indonesia's marketing year to date exports lag behind last year, therefore, palm oil imports were reduced in the following markets: India, by 700,000 metric tons; China, by 400,000 metric tons; and the European Union by 450,000 metric tons.

## Suggested Citation

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