



## Will Brazil Emerge as the Number One Corn Exporting Nation?

Joana Colussi, Gary Schnitkey, and Nick Paulson

Department of Agricultural and Consumer Economics  
University of Illinois

March 16, 2023

*farmdoc daily* (13): 48

---

Recommended citation format: Colussi, J., G. Schnitkey, and N. Paulson. "Will Brazil Emerge as the Number One Corn Exporting Nation?" *farmdoc daily* (13): 48, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, March 16, 2023.

Permalink: <https://farmdocdaily.illinois.edu/2023/03/will-brazil-emerges-as-the-number-one-corn-exporting-nation.html>

---

The United States Department of Agriculture (USDA) forecast that Brazil will export more corn than the United States this year has shaken the global corn market. Brazil exported more corn than the U.S. only once before, in the drought year of 2012/13. If Brazil emerges as the largest exporting nation, its front-runner status might not be temporary. The continued expansion of corn as a second crop and the recent opening to the Chinese market could mean that Brazil will keep competing with the U.S. for the title of world's top corn exporter more often in the coming years. This article examines the main factors that could push Brazil into first place.

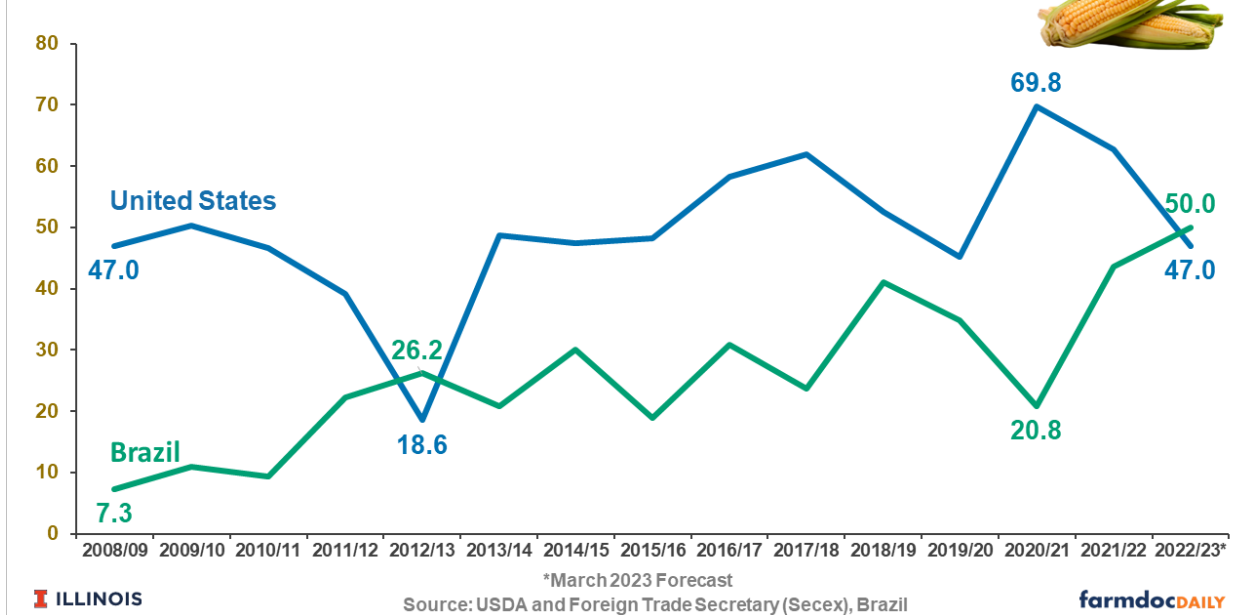
### China: A New Key Buyer

In its March "World Agricultural Supply and Demand Estimates (WASDE)" report, the USDA raised its forecast for Brazilian corn exports to 50 million tons for the 2022-23 marketing year (October-September). That would put Brazil above the United States, the long-established world leader in corn exports. The United States is expected to ship 47 million tons to foreign buyers, two million tons less than the February forecast. Brazilian exports have risen sevenfold in 15 years, jumping from 7 million tons to 50 million tons (Figure 1).

---

We request all readers, electronic media and others follow our citation guidelines when re-posting articles from *farmdoc daily*. Guidelines are available [here](#). The *farmdoc daily* website falls under University of Illinois copyright and intellectual property rights. For a detailed statement, please see the University of Illinois Copyright Information and Policies [here](#).

**Figure 1. Brazil Forecasted to Surpass the United States in Corn Exports**  
From 2008/09 to 2022/23 in million metric tons



Brazil and China signed an agreement on phytosanitary requirements for corn trade last year, and the first shipment of Brazilian corn to China occurred in November 2022. In the 2021-22 marketing year, the primary destinations of Brazilian corn were Iran, Spain, Japan, Egypt, and Colombia. In January 2023, China became the primary destination of Brazilian corn exports by volume, surpassing the traditional importers, according to trade data from the Brazilian government. The pace of corn exports to China at the beginning of the year exceeded expectations. In January and February 2023, the Brazilian government authorized 90 new companies to export corn to China, reaching 446 companies qualified to ship to the Chinese market. Brazil's exports are expected to fall seasonally beginning in March and continuing until the safrinha harvest later in the year.

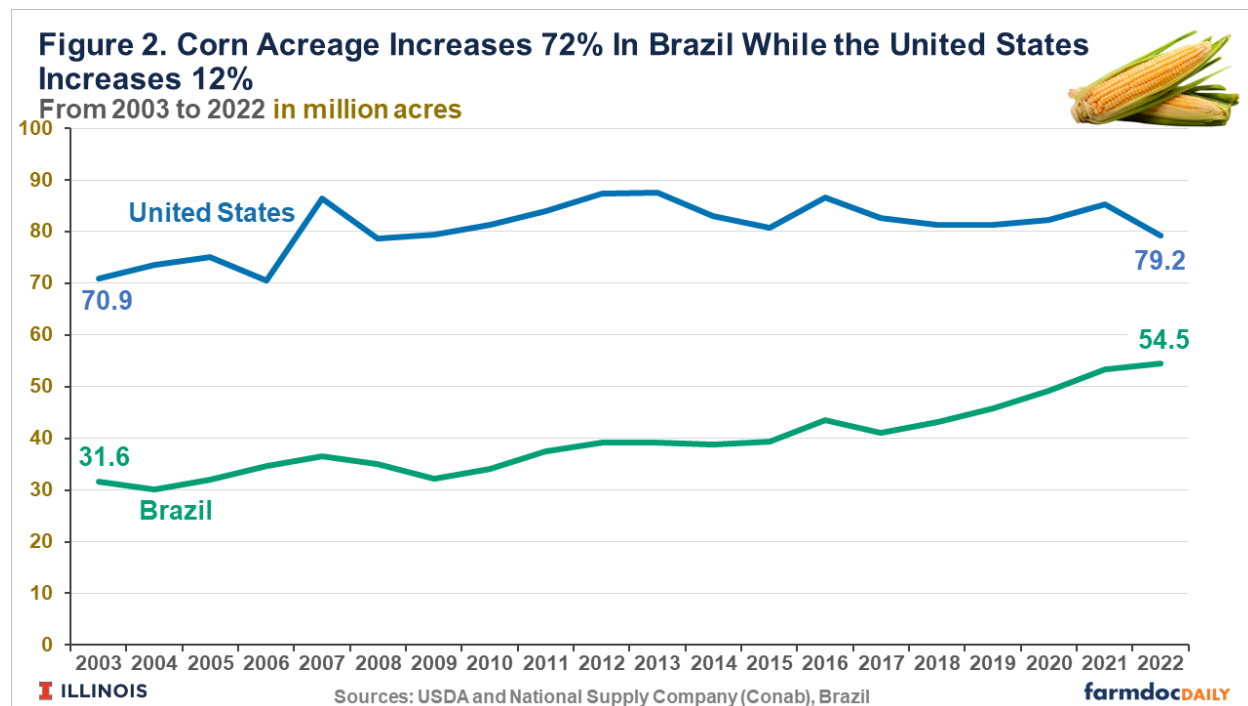
By contrast, U.S. corn exports have been off to a slow start. Production in 2022/23 was smaller than initially forecast and Mississippi River conditions in the months after harvest kept U.S. prices relatively uncompetitive. Since mid-January, U.S. price competitiveness has improved but export sales have been slow to respond. According to data from the USDA, the export inspections for January and February combined are about half of the average shipped during the same period in the last two years. Consequently, the U.S. export forecast was reduced by another 2 million tons in March relative to the previous month.

Ukraine, another large player in the global corn trade, has been able to export corn despite the war with Russia, but monthly volumes remain below pre-war levels. Overall, corn exports from Ukraine in the 2021/22 marketing year were down 20% from projections made before the war. For 2022/23, large declines in exports of about one-half to two-thirds were anticipated, but those initial concerns about lost or stranded Ukrainian agricultural commodities have not materialized (see *farmdoc daily*, [February 24, 2023](#)).

Meanwhile, Argentina is facing significant production cuts for the 2022/23 year because of another severe drought. As a result, according to the USDA forecast, Argentina's corn exports are forecast at 29 million tons for the 2022-23 marketing year, the lowest since 2017/18. This year's Argentinian production has been heavily impacted by drought. According to the Rosario Board of Trade, Argentina is projected to produce less than 1.4 billion bushels, a decrease of about 30% compared to the last year. But the forecasts could be revised further downwards in the coming weeks. Argentina has been facing the effects of La Nina for three years in a row.

## Continued Expansion of Second Crop (Safrinha)

Even though U.S. corn production and exports are at historically average levels, the United States will likely compete with Brazil to be the world's top corn exporter in the coming years. Brazil is expected to exceed the United States in planted area dedicated to corn in the coming years. In the last 20 years, corn acreage in Brazil has risen 72%, from 31.6 million acres in 2003 to 54.5 million acres in 2022, according to data from the National Supply Company (Conab), Brazil's food supply and statistics agency. In the same period, the planted area in the United States rose 12%, from 70.9 million acres to 79.2 million acres, according to the USDA (Figure 2).



Brazil's corn production has increased over the past two decades because of the increased production of second crop corn, also known as the safrinha, or "little harvest" in Portuguese. Safrinha corn is planted as a second crop, immediately after the soybean harvest, and typically is harvested between June and August. Currently, the safrinha crop accounts for about 77% of total corn production in Brazil. The growth in the safrinha crop is an opportunity for Brazil to double its corn production in the coming years. In addition, Brazil recently started to have a third crop corn season in the Northeast. Although still very small, it continues to increase (see *farmdoc daily*, [April 12, 2021](#)).

Projections indicate total corn production in Brazil for the 2022/23 crop year will be a record 4.9 billion bushels (equivalent to 125 million tons), an increase of 10 percent over last year. The total includes the first, second, and third crops. The United States produced 13.7 billion bushels (equivalent to 348 million tons) of corn in one crop in 2022, almost three times that of Brazil, according to data from the USDA.

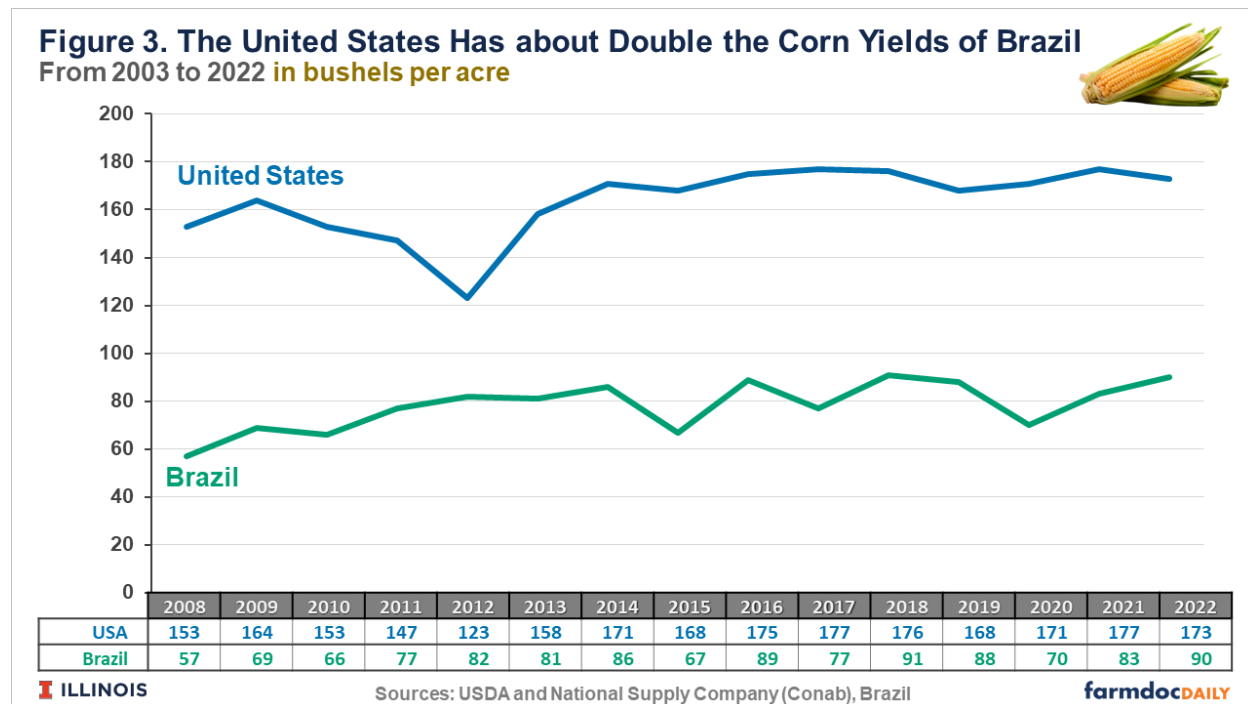
While the first crop of corn faces a severe drought in southern Brazil, the second corn crop (safrinha) is being planted in the Center West, immediately after the soybean harvest. Currently, the second crop corn faces late planting because of a delay in the soybean harvest as a result of rainy weather. By the second week of March, 73% of the second corn crop was planted in Brazil. During the same period last year, 87% of the crop had been planted, according to Conab. The ideal window for planting the safrinha crop has now closed for at least 30% of the area to be planted. This does increase the chances that the crop will face weather conditions that could reduce yields, such as dryness and frost.

Brazilian total corn acreage is expected to grow 4% – to 55 million acres, in the 2022/23 crop season. High prices and profits last season, coupled with the depreciation of the Brazilian currency relative to the dollar, have motivated farmers to increase their planted acreage. In addition, Brazil is expanding its ethanol production. Currently, 18 corn ethanol plants are operating and another five are under

construction, most of them in the center western states, where the second corn crop is concentrated. Currently, about 50% of Brazilian corn production (65 million tons) is consumed by animal feed and 10% by ethanol plants (13 million tons) in the domestic market. The remaining, close to 50 million tons, would be the potential to export.

### Yields Challenge Brazilian Production

If corn acreage growth has been an advantage Brazil has had over the United States, the same cannot be said about average yields. The average yield for the 2022/2023 corn season in Brazil is expected to be 90 bushels per acre, almost half the average in the United States, where the average yield was 173 bushels per acre in 2022 crop season. The average yield of Brazilian corn has grown 58% in the last 15 years, but continues to lag far behind the corn yield in the United States (Figure 3).



Although the second corn crop (safrinha) has become Brazil's primary corn crop and an increasing share of world corn production, its yields are more variable than Brazil's first crops (see *farmdoc daily*, [January 12, 2022](#)). Yields for the last five harvested crops (2017/18 – 2021/22), for example, averaged 92 bushels per acre in the first crop and 80 bushels per acre in the second crop, according to data from Conab.

A key factor in safrinha variability is the timing of the onset of the dry season. If the onset is early or if safrinha is planted late, the probability of dry weather reducing yields is higher. Weather almost always makes the second corn crop riskier. On the other hand, safrinha has a number of benefits, including agronomic management (double cropping rotation), production costs (use of the same machinery as the first crop), additional income, and farmer marketing strategies (revenue throughout the year).

### Summary

If USDA estimates are confirmed, Brazil will surpass the United States as the world's largest corn exporter in the 2022-23 marketing year. After Brazil and China signed a deal on phytosanitary requirements for corn trade, China became the first destination of Brazilian corn exports by volume in January 2023. The trend is that the growth rates of the area planted with corn in Brazil will continue to exceed that of the United States in coming years, pushed by the second crop, also known as the safrinha. However, despite the average yield of Brazilian corn having grown in the last years, it is still far from average corn yield in the United States. Even so, possible Brazilian leadership in corn exports may not be temporary.

## References and Data Sources

Colussi, J. and G. Schnitkey. "Brazil: Corn Production in Three Crops per Year." *farmdoc daily* (11):58, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 12, 2021.

Conab, National Supply Company. Crops Time Series. First, second, and third corn crops. Brasília, DF. March 2023. <https://www.conab.gov.br/info-agro/safras/serie-historica-das-safras/itemlist/category/910-Milho>

Janzen, J. and C. Zulauf. "The Russia-Ukraine War and Changes in Ukraine Corn and Wheat Supply: Impacts on Global Agricultural Markets." *farmdoc daily* (13):34, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, February 24, 2023.

U.S. Department of Agriculture (USDA), Foreign Agricultural Service. March 2023. Grain: World Markets and Trade. Argentina Drought Cuts Corn Exports with Lowest Global Trade in Three Years. <https://apps.fas.usda.gov/psdonline/circulars/grain.pdf>

U.S. Department of Agriculture (USDA), Foreign Agricultural Service. February 2023. Grain: World Markets and Trade. Brazil and the United States Vie for World's Top Corn Exporter. <https://downloads.usda.library.cornell.edu/usda-esmis/files/zs25x844t/bn99bk18h/31980026b/grain.pdf>

U.S. Department of Agriculture (USDA), World Agricultural Supply and Demand Estimates (WASDE). March 2023. <https://www.usda.gov/oce/commodity/wasde/wasde0323.pdf>

U.S. Department of Agriculture (USDA), National Agricultural Statistics Service. January 2023. Yield by Year, U.S. [https://www.nass.usda.gov/Charts\\_and\\_Maps/Field\\_Crops/cornyld.php](https://www.nass.usda.gov/Charts_and_Maps/Field_Crops/cornyld.php)

U.S. Department of Agriculture (USDA), National Agricultural Statistics Service. January 2023. Corn Acres by Year, U.S. [https://www.nass.usda.gov/Charts\\_and\\_Maps/Field\\_Crops/cornac.php](https://www.nass.usda.gov/Charts_and_Maps/Field_Crops/cornac.php)

Zulauf, C., J. Colussi and G. Schnitkey. "Comparing Brazilian (1st and 2nd Crops), American, and Argentine Corn Yields." *farmdoc daily* (12):5, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, January 12, 2022.