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Report Highlights:

Post projects marketing year (MY) 2023/2024 soybean production at 10 million metric tons (MMT) as planted area rises to 3.55 million hectares and Paraguay returns to trend for yield. MY 2023/2024 exports are projected at 6.4 MMT. MY 2022/2023 production recovered from the prior year's drought to reach Post's estimate of 8.8 MMT, which is 1.2 MMT below the official USDA Estimate. As a result of the historic drought in Argentina, traders and processors with operations in both countries will opt to send more soybeans to be crushed in Argentina rather than be crushed domestically in Paraguay. Post estimates 2022/2023 crush at 2.9 MMT and exports at 5.7 MMT.

Production

MY 2023/2024

Total soybean planted area is projected to increase slightly in marketing year (MY) 2023/2024. Total planted area is forecast at 3.55 million hectares (HA), with 2.95 million HA of first crop (zafra) soybeans and 0.6 million HA of second crop (zafrina). Total production is forecast at 10 million metric tons (MMT). While zafrina planted area is projected to grow 50,000 HA, this growth is from a historically low level of planted area in recent zafrina cycles. In the last decade, zafrina planted area has been as high as 1 million HA. However, the introduction of better adapted, higher-yielding corn hybrids is attracting acreage away from the agronomically risky practice of growing consecutive soy on soy, and the resulting crop rotation can help break pest cycles. Growth in zafra planted area is expected to be limited to 50,000 HA.

Very little land suitable for soybean production is available to be converted in the eastern part of the country. Some pastureland in San Pedro may be converted as well as some former rice lands in districts where flood irrigation has become unreliable or crop rotation is needed to break pest cycles in rice. While land conversion is ongoing in the Chaco, the attractiveness of this option has waned despite high soybean prices. Local producers in the Chaco are reluctant to convert fields from ranching to crop production because of the high relative risk of crop cultivation in this drier region and the recent higher returns to livestock production. Farmers based primarily in the east of the country are dissuaded from purchasing land in the Chaco because of the logistical challenges associated with transporting equipment and labor across the country. The primary drivers of conversion at present are investors based in Asuncion who hope to buy ranch or scrubland at low prices and eventually profit by selling their property at higher cropland valuations.

Paraguayan farmers are among the most aggressive in the region in their willingness to adopt new technology, and the falling cost of farm inputs combined with improved financial returns since the disastrous 2021/22 soybean zafra crop will likely lead to increased investment in inputs for MY 2023/2024. Due to soil type, soybeans in Paraguay require substantially more nitrogen fertilizer than in neighboring Argentina. MAP fertilizers are the most commonly applied in Paraguay. Paraguayan soils do not have good water holding capacity and high rates of evapotranspiration in Paraguay's tropical latitude mean that farmers are highly dependent on regular rainfall throughout the growing season. Even a short period without rain (4-5 weeks) can lead to dramatic reductions in yield.

MY 2022/2023

Total soybean planted area rose somewhat in MY 2022/2023, but a return to more normal precipitation levels were responsible for the doubling of production from 4.1 MMT in 2021/22 to 8.8 MMT in 2022/2023. This is still 1.2 MMT below the official USDA estimate. The reduction from earlier projected yields is primarily due to less-than-ideal weather conditions throughout the growing season which delayed development and harvesting. Yields are estimated at 2.55 T/HA, below the 2.9 T/HA projected at the beginning of the year.

Figure 1: Soybeans in Alto Paraná Department, Paraguay

Top: Zafrina (second-crop) soybeans in good condition
Botton: Zafra (first-crop) soybeans delayed in being harvested next to very late planted Zafrina soybeans.
Source: FAS Buenos Aires, March 27, 2022

While a La Niña climate pattern led to a historic drought which affected production in Argentina, Uruguay, and parts of southern Brazil, Paraguay was far enough north that it received sufficient moisture in the 2022/2023 crop year. The MY 2022/2023 zafra crop was planted more or less on time in September. Problems with seed quality (due to the drought the prior year) led farmers to increase seeding densities to ensure adequate germination. Some farmers who faced financial challenges due to the prior year's drought also lowered fertilizer use somewhat. Erratic weather during the growing seasons, including both very low and very high temperatures, as well as spotty rains in some areas led to a slight reduction in yields overall. Ultimately Paraguayan farmers planted 2.9 million HA of zafra soybeans. Heavy rains in February further delayed fieldwork and harvest was still not complete at the time of Post's crop travel to Paraguay in mid-March. Post estimates the resulting zafra harvest at 8 MMT.

Due to wet conditions during the end of the zafra season, farmers have been forced to make several fungicide application for soybean rust to protect the zafrina crop. While the widespread availability of low-cost imported generic pesticides provides Paraguayan farmers affordable options for weed and insect control, the continued spread of herbicide resistant weeds is complicating management practices and leads to steadily rising production costs relative to past years. This is one reason that farmers are increasing crop rotations and reducing the practice of planting soy on soy.

Following the delayed zafra harvest, approximately 500,000 HA of zafrina soybeans were planted. While this continues the last two years of growth, it is still below the average of the last decade. At present most zafrina soybeans are in good to average condition and producers are anticipating yields in the range of 1.5-2 MT/HA. Because of the late planting date there is a low but real risk of early frost. Normally frosts don't arrive until mid to late June and despite the late planting date, most zafrina soybeans should be harvested by the end of May. While fertilizer and seed costs are generally lower for zafrina beans in comparison to the zafra crop, this year farmers are spending more than normal on fungicides to prevent soybean rust. Post estimates a total zafrina harvest of 800,000 MT with an average yield of 1.6 MT/HA.

Consumption

MY 2023/2024

Crush is forecast to rise slightly to 3.3 million tons, thanks to a return to normal production levels. As a result, both meal and oil production will increase with meal production forecast at 2.25 million tons, and oil production is forecast at 0.627 million tons.

While pork and poultry production has grown in recent years, further growth in domestic soybean consumption outside of industrial processing is limited by Paraguay's location and the structure of its livestock industry. Despite some recent investment in large scale production, Paraguay's pork and poultry demand is largely met by small-scale production and some imports from Brazil. More large scale pork and poultry production would undermine this key source of income for rural residents. As Paraguay is landlocked it must ship overland to Brazilian ports and compete in export markets with established Brazilian protein producers with shorter supply chains.

In November 2021, a large renewable diesel plant began construction under the name Omega Green. Omega Green is a project of ECB Group, a Brazilian company. The firm has reported signed agreements with several international firms to export renewable diesel, renewable aviation fuel, and green naptha. In January 2022, the President of Paraguay signed a decree declaring the project to be in the national interest. In November 2022, Paraguay issued a presidential decree that provided the project with a free trade zone.

Some industry contacts report that the project has taken longer than expected to begin. Initially press releases suggested the plant would begin producing in 2024, but current statements refer to 2025. The plant, located in Puerto Santa Rosa/Villeta, 60 kilometers south of Asuncion is planned to have a daily capacity of 20,000 barrels and, if realized, would consume a significant portion of Paraguay's soybean oil production. The project has reportedly expanded its real estate acquisition to 484 hectares and the owners, ECB Group have purchased a soybean crushing facility in Canindeyu. Some NGO's have criticized the development saying it would lead to more deforestation and that little of the biofuel produced at the plant would be consumed in Paraguay.

MY 2022/2023

Crush is estimated at 2.9 MMT, 550,000 tons lower than the official USDA but a significant recovery from the low levels seen in MY 2021/2022. While improved soybean production could allow for higher crush volumes, regional cost structures will encourage multinational companies to sell more soybeans whole downriver to larger and more efficient Argentine crush plants rather than crush them domestically. Additionally, the delay in harvesting the Zafra means that Paraguayan plants will have fewer operating days at the beginning of the year.

Soy meal production is forecast at 2.21 MMT, 412,000 tons below the official USDA estimate based on a smaller crush. Similarly, soy oil production is estimated lower the official USDA estimate 561,000 tons.

Trade

MY 2023/2024

Soybean exports are forecast at 6.4 MMT, rising 12 percent of 2022/2023 level as soybean production returns to more normal levels. In recent years, Argentina has become the principal destination for whole Paraguayan soybeans and this trend is expected to continue in MY 2022/2023. The average protein content of Paraguayan soybeans is higher than Argentine beans, and the blending of Paraguayan beans allows Argentine crushers to meet their buyers' protein specifications. Paraguayan beans must be barged down the Paraguay or Parana rivers to ports in Argentina or Uruguay and loaded into ocean-going vessels.

A larger crush should allow for a recovery in exports of meal and oil which have fallen steadily in recent years due to disappointing harvests, high demand for whole beans in Argentina, and a change in Paraguayan tax laws which made domestic processing less attractive.

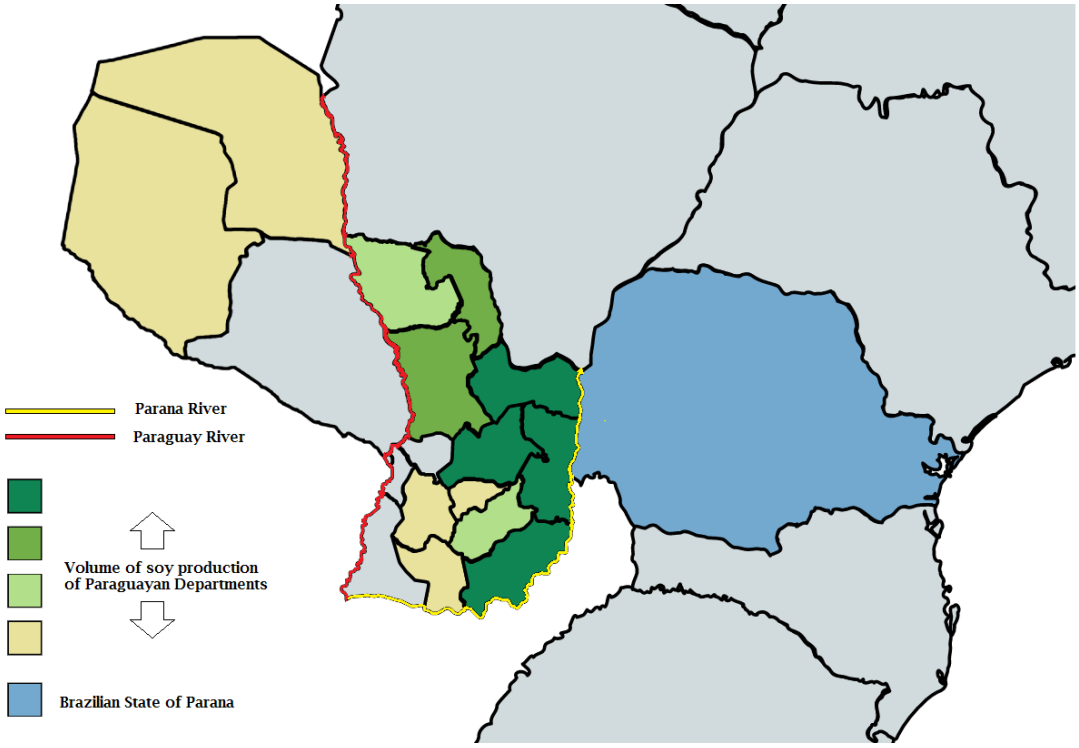
MY 2022/2023

Exports of whole beans are forecast at 5.7 MMT, which is 700,000 MT below the official USA estimate but more than 3.4 MMT above the historically low levels seen in the drought year 2021/2022. The drought currently devastating Argentine soybean production means that Argentina is likely to purchase that vast majority of soybeans that Paraguay is able to export. Argentina's demand is likely to rise above 10 MMT, meaning that Paraguayan bean will be insufficient to meat its demand.

In recent years, soybean exports by truck to Brazil have become more important in the Paraguayan soybean market. This trade will likely decline in 2022/2023 due to the strong demand from Argentina. Logistically, this trade is more competitive when river levels are low which raise barging costs downriver to Argentina or when ports on the Parana River are closed because the river is impassable. Currently river levels are normal due to rains in much of northern and central Brazil. Further Brazil's record soybean crop will reduce Brazilian demand for Paraguayan imports. At the same time, the drought affecting Argentina and Uruguay also affected the soybean harvest is southern Brazil. This means there will still be some demand from the large animal feeding industries in the State of Parana.

Meal exports are estimated at 1.75 MMT, coming in at 250,000 tons lower than the official USDA estimate on a smaller crush. Exports of soy meal to Chile have grown in recent years and compensated for declines in exports to the EU as Brazil, Argentina, and the U.S. have captured market share from Paraguay. Oil exports are forecast at 500,000 tons, 85,000 tons lower than the official USDA estimate.

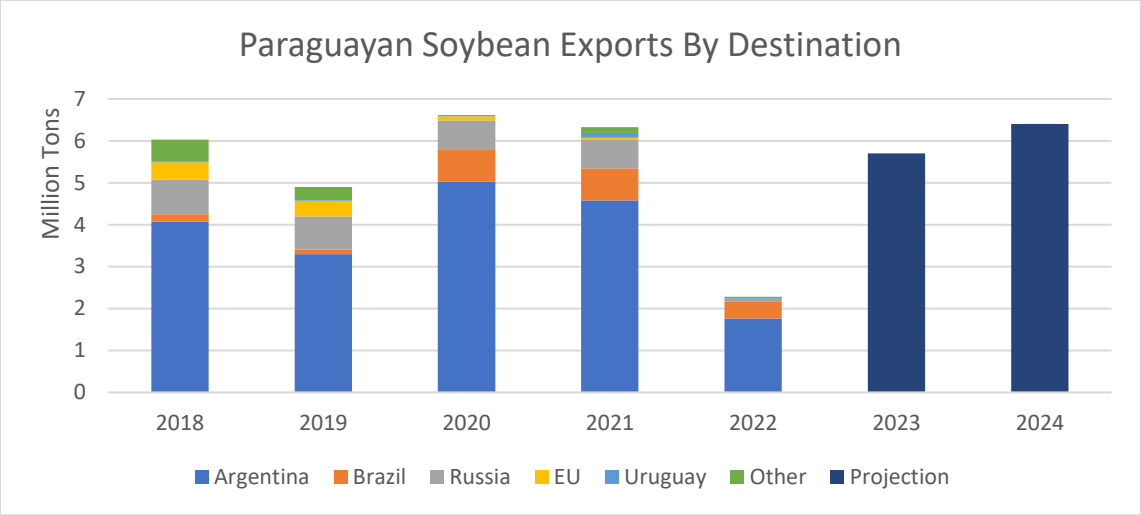
Figure 2: Soy Production by Department and Major Trade Routes

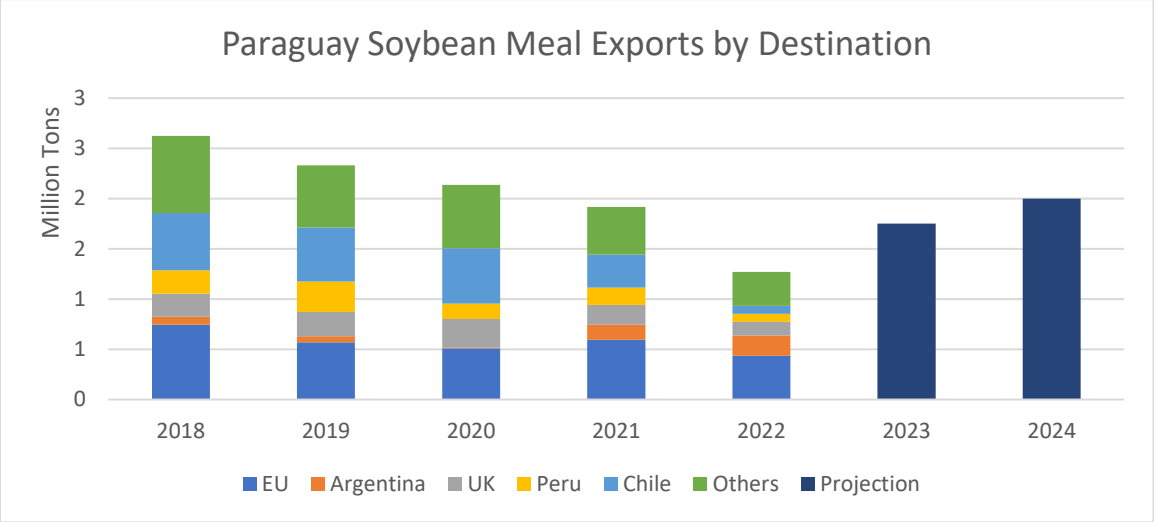


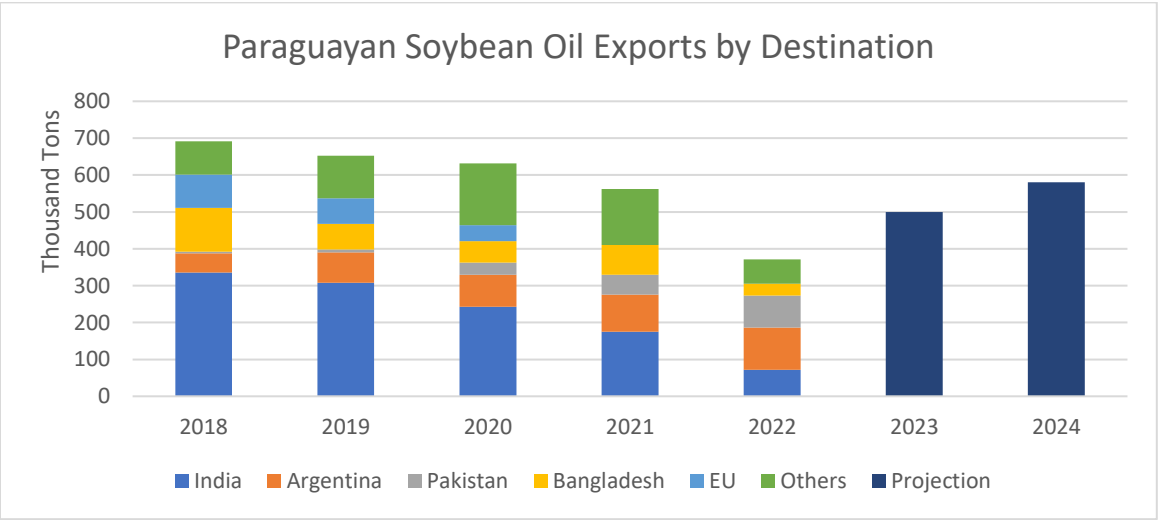
Source: FAS Buenos Aires

As mentioned above, water levels on the Parana and Paraguay Rivers have recovered from the historically low levels seen in recent years. This should allow for a return to a normal shipping pattern where approximately 35-40 percent of Paraguayan river barge exports are loaded at facilities on the Parana River and the remainder are loaded on the Paraguay River. In part driven by the shipping challenges of the last few years, the Paraguayan government has signed an MOU with the U.S. Army Corps of Engineers to study improvements to the river system which would improve the efficiency of Paraguayan shipping. The Paraguayan Congress still needs to approve funding for the study which could cost around USD $20 million. Presidential and Congressional elections are scheduled for April 30, 2023 in Paraguay. Argentina, which controls the lower stretches of the river and charges tolls for use of the river, has objected in the past to U.S. involvement in river planning. Agricultural stakeholders in the region have long called for improvements in dredging, signaling, and traffic control that would lower shipping costs and make exports more competitive in international markets.

Figures 3,4,5: Paraguayan Soybean, Meal, and Oil Exports by Destination







Source: TDM and FAS Buenos Aires (2023 and 2024 export forecasts)

Production, Supply, and Distribution Tables:

Oilseed, Soybean	2021/2022		2022/2023		2023/2024	
Market Year Begins	Jan 2022		Jan 2023		Jan 2024	
Paraguay	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (1000 HA)	3420	3325	3450	3450	0	3550
Area Harvested (1000 HA)	3416	3315	3450	3450	0	3550
Beginning Stocks (1000 MT)	477	477	177	184	0	134
Production (1000 MT)	4183	4100	10000	8800	0	10000
MY Imports (1000 MT)	40	40	10	10	0	10
Total Supply (1000 MT)	4700	4617	10187	8994	0	10144
MY Exports (1000 MT)	2273	2273	6400	5700	0	6400
Crush (1000 MT)	2200	1900	3450	2900	0	3300
Food Use Dom. Cons. (1000 MT)	0	0	0	0	0	0
Feed Waste Dom. Cons. (1000 MT)	50	260	125	260	0	270
Total Dom. Cons. (1000 MT)	2250	2160	3575	3160	0	3570
Ending Stocks (1000 MT)	177	184	212	134	0	174
Total Distribution (1000 MT)	4700	4617	10187	8994	0	10144
Yield (MT/HA)	1.2245	1.2368	2.8986	2.5507	0	2.8169
(1000 HA) ,(1000 MT) ,(MT/HA)						

Oil, Soybean	2021/2022		2022/2023		2023/2024	
Market Year Begins	Jan 2022		Jan 2023		Jan 2024	
Paraguay	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush (1000 MT)	2200	1900	3450	2900	0	3300
Extr. Rate, 999.9999 (PERCENT)	0.19	0.19	0.1904	0.19	0	0.19
Beginning Stocks (1000 MT)	39	39	17	5	0	11
Production (1000 MT)	418	361	657	551	0	627
MY Imports (1000 MT)	2	2	2	5	0	5
Total Supply (1000 MT)	459	402	676	561	0	643
MY Exports (1000 MT)	371	371	585	500	0	580
Industrial Dom. Cons. (1000 MT)	0	0	0	0	0	0
Food Use Dom. Cons. (1000 MT)	71	26	69	50	0	55
Feed Waste Dom. Cons. (1000 MT)	0	0	0	0	0	0
Total Dom. Cons. (1000 MT)	71	26	69	50	0	55
Ending Stocks (1000 MT)	17	5	22	11	0	8
Total Distribution (1000 MT)	459	402	676	561	0	643
(1000 MT) ,(PERCENT)						

Meal, Soybean	2021/2022		2022/2023		2023/2024	
Market Year Begins	Jan 2022		Jan 2023		Jan 2024	
Paraguay	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush (1000 MT)	2200	1900	3450	2900	0	3300
Extr. Rate, 999.9999 (PERCENT)	0.7582	0.7632	0.76	0.7621	0	0.7636
Beginning Stocks (1000 MT)	317	317	165	102	0	62
Production (1000 MT)	1668	1450	2622	2210	0	2520
MY Imports (1000 MT)	5	5	0	0	0	0
Total Supply (1000 MT)	1990	1772	2787	2312	0	2582
MY Exports (1000 MT)	1270	1270	2000	1750	0	2000
Industrial Dom. Cons. (1000 MT)	0	0	0	0	0	0
Food Use Dom. Cons. (1000 MT)	0	0	0	0	0	0
Feed Waste Dom. Cons. (1000 MT)	555	400	575	500	0	500
Total Dom. Cons. (1000 MT)	555	400	575	500	0	500
Ending Stocks (1000 MT)	165	102	212	62	0	82
Total Distribution (1000 MT)	1990	1772	2787	2312	0	2582
(1000 MT) ,(PERCENT)						

Attachments:

No Attachments