

THIS REPORT CONTAINS ASSESSMENTS OF COMMODITY AND TRADE ISSUES MADE BY USDA STAFF AND NOT NECESSARILY STATEMENTS OF OFFICIAL U.S. GOVERNMENT POLICY

Required Report - public distribution

**Date:** 4/17/2017

**GAIN Report Number:** 

# **Paraguay**

# **Oilseeds and Products Annual**

2017/18 Soybean Production Forecast: A decrease in area and a return to average yields is expected to produce 9.4 million tons. Record production estimated for 2016/17

### **Approved By:**

David Mergen, Agricultural Counselor

### **Prepared By:**

Lazaro Sandoval, Agricultural Attaché

### **Report Highlights:**

2017/18 area is expected to decline almost 3 percent to 3.35 million hectares due to a fall in Zafrina (2<sup>nd</sup> crop soybean) area. Yields are not forecast to reach the record levels of the present season, but are expected to be above average at 2.8 tons per hectare resulting in production at 9.4 million tons. 2017/18 soybean exports and crush are forecast to decline to 5.6 and 3.8 million tons, respectively, due to lower supplies. Production for 2016/17 is increased to 10.2 million tons due to elevated crop area and record yields – supported by good weather throughout the season.

### **Commodities:**

Oilseed, Soybean Oil, Soybean Meal, Soybean

#### **Production:**

2017/18

Post forecasts 2017/18 total soybean area at 3.35 million, an almost 3 percent decrease from 2016/17. The decline is attributed to less Zafrina (2<sup>nd</sup> crop soybean) area due to agronomic pressures and greater incentive to grow alternative crops, specifically 2<sup>nd</sup> crop corn. As such, the area planted for Zafra (1<sup>st</sup> crop soybean) is expected to remain around 2.8 million hectares while Zafrina area will decline to 550,000 hectares. Zafrina is expected to decline 100,000 hectares as part of the regular crop rotation pattern and expected higher returns for corn next season.

Average yields at the national level will revolve around 2.8 tons per hectare. Based on these conditions, total Paraguay soybean production for 2017/18 is forecast at 9.4 million tons.

Producers are expected to continue invest in better inputs for next season as they did for 2016/17. However, the cost of chemical inputs (fertilizers, pesticides, etc.) is expected to increase by an average of almost 10 percent per contacts, which will affect margins. An estimated 30-40 percent of the crop area is planted with Monsanto's INTACTA seed. This trend is expected to continue with local contacts reporting the company's plan to increase use to 60 percent of area in the foreseeable future. Financing for inputs is still largely provided by input companies/grain traders. Producers enter what local contacts describe as barter-like arrangements where companies will supply inputs to producers in exchange for a negotiated volume of soybeans or its monetary equivalent based on a negotiated price. Small and medium producers utilize this arrangement as their main input financing tool. Mid to large producers also utilize financing from private banks where all transactions are made in U.S. dollars with interest rates between 6 to 8 percent. Local contacts report that there will be more interest in technology investments, with some producers already looking to make machinery purchases. Yet, most believe this interest is not indicative of most producers as they use their earnings to build-up savings for financing future seasons and for other circumstances – especially after some tumultuous seasons these past few years.

In Paraguay, over 90 percent of production is concentrated in farms with over 500 hectares. The typical farm size profiles are:

Small Farm - 100-200 hectares Medium Farm - +500 hectares Large Farm - +1000 hectares

It is estimated that 80 percent of production comes from land owned by producers and 20 percent from land that is rented. Rent rates are expected to continue growing for the next season as they have in the past two. Contacts report average rent rates for the departments of Itapúa and Alto Parana around 1.2 tons of soybeans per hectare for March 2017. This represents an increase of 41 percent compared to the

same time last year when rent rates revolved around 850 kilos of soybeans per hectare. Much of the area that is rented is close to the renter; usually the land is rented from neighbors.

#### 2016/17

For 2016/17, Post revises production up to 10.2 million tons due to excellent weather conditions during key growing periods in the season and higher than expected Zafrina area. Originally, Zafrina area was expected to decline to 525,000 hectares; however, it instead rose to 650,000 hectares as producers forecasted positive margins and above average yields for this crop. Although an estimated 20 percent of the crop is delayed due to colder temperatures that occurred during the early planting stages, Zafra yields are excellent at over 3.1 hectares per hectare. Over 40 percent of the crop was planted in September and was aided by plentiful rains. Along with good weather conditions, the crop experienced little pest incidence such as soybean rust thanks to lower temperatures that helped control pests. Thanks to the positive experiences with long cycle soybeans (120-125 days), more of the crop is expected to be planted in future seasons.

Traditionally, harvest of the soybean crop is completed by the end of January, but due to the delays, harvest will not be completed until mid to late March. Zafrina soybeans are planted not long after the Zafra harvest and are expected to be harvested in June and July.

### 2015/16

Post revises 2015/2016 production to 9.2 million tons. This adjustment is based on new production information in addition to revised trade and crush figures.

### Margins and Financial Situation of Producers

This season is expected to be one of the most profitable for producers thanks to higher yields, stable costs, and good prices. Based on a cross-section of different producers and analysis, producers are expecting to incur production costs of USD \$590 per hectare. Local analysts report that this season's costs and soybean prices are similar to those experienced last season; however, the higher yields are delivering greater returns. Based on an above average yield in the main production zone (Itapúa, Alto Parana, Canindeyú, and Caaguazú) of 3.4 tons per hectare (Zafra crop) and a price of \$335 per ton, producers are expecting a net margin of \$490 per hectare. Despite the positive returns, the sector is still facing high debt levels. Per contacts, private banks in Paraguay are holding about \$3.3 billion in farm-related debt. This is the culmination of large capital expenditures (machinery, land, etc.) over the past couple of years and varied seasons – some of which deliver minimal or negative returns. Local market analysts calculate the value of this debt at the production costs of two soybean seasons. This season's returns will help producers alleviate part of this debt burden and possibly refinance it. Most observers conclude that despite the higher debt levels, producer debt is manageable. Sources report that an estimated 5 to 10 percent of producers are in situations with unsustainable debt that could endanger operations.

### Area Expansion

Area expansion is limited as the prime area for soybean production in the southeast part of country (especially the departments of Canindeyú, Alto Parana, and Itapúa) has been maximized. The factors limiting additional expansion are economic/risk, agronomic, and security. The areas with area expansion potential – departments of San Pedro, Cordillera, Amambay, and Concepcion – are riskier for production due to sandy or varied quality soils and competition from more profitable farm operations. These areas have traditionally been dedicated to livestock production and any conversion to crop land is costly and trying. Over the years, soybeans have overtaken pasture area; but, the recent rise in domestic meat prices are making livestock production more lucrative – diminishing the incentive to switch over to soybeans. Security issues in San Pedro and Amambay are also discouraging producers from expanding crop area. Moreover, contacts report that if soybean production was to commence it would face significant startup costs and tight margins along with little to no expertise nor labor to complete this operation.

The Chaco region of Paraguay (departments of Boquerón, Alto Paraguay, and Presidente Hayes) represents about 60 percent of the country's area and holds the greatest potential for area expansion. Producers are evaluating the viability of expanding production to this region as this area is difficult for crop production due to extremely variable weather, particularly high temperatures. Research is underway in the development of heat-tolerant soybeans that could facilitate crop plantings in that region.

Below is a map of Paraguay showing percentage of soybean area by department (source <u>AgriDatos</u>, Market Report on Supply and Demand, Edition 6):



### **Consumption:**

#### Crush

2017/18 crush is forecast to decline to 3.83 million tons due to lower supplies. Multiple crushers and sector analysts have raised concerns over lower protein content in the local soybean supply. This is a significant issue as local crushers distinguish themselves on the world market through high protein soybeans and meal. If local crushers and exporters cannot deliver this protein level, they will lose out on significant price premiums and it will be difficult to market their soybeans and products against regional competitors.

Multiple theories persist to explain the lower protein content in soybeans. Most suggest that there is a correlation between higher yields and lower protein levels. This explanation appears to be very reasonable to many as the 2016/17 season is delivering higher yields. Others note that the lower protein content has been declining over the past five years or so and have suggested possible explanations related to seed varieties, climate, soil nutrition, or soybean double cropping.

2016/17 soybean crush is expected to increase to 3.98 million tons based on higher soybean supplies. In part, due to the above-mentioned protein level issue, contacts note that crush margins are much tighter now. 2015/16 soybean crush is revised to 3.64 million tons based on updated crush figures.

### Domestic Feed Consumption

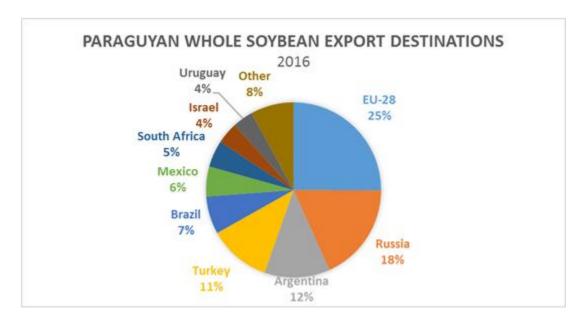
Domestic feed consumption of soybeans and byproducts is relatively small in Paraguay, compared to regional neighbors. Soybeans and soybean meal are used in feed rations for the pork and poultry industries, and to a limited extent for cattle. Most cattle feeding is still pasture based so there is little demand for use in cattle feed rations. Post forecasts 2017/18 feed use of soybeans at 45,000 tons, an increase of 7 percent from 2016/17. 2015/16 and 2016/17 soybean feed use is revised to 40,000 and 42,000 tons, respectively. Soybean meal consumption for 2017/18 is forecast increase by 7 percent to 320,000 tons due to greater demand from the poultry and pork sectors.

Soybean oil consumption for 2017/18 is forecast at 65,000 tons, a slight increase compared to the previous year based on growing population and demand. 2015/16 and 2016/17 soybean oil consumption is revised to 60,000 and 63,000 tons, respectively. Out of this consumption, less than 5,000 tons is consumed for industrial use, the rest is food use. Soybean oil use for biodiesel is limited as it is more expensive than animal fat, the traditional source for the Paraguayan biodiesel sector. The higher cost of biodiesel production based on soybean oil limits any potential growth and thus domestic oil use will remain around current levels for the foreseeable future.

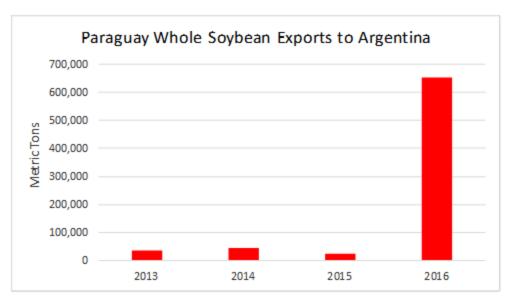
#### **Trade:**

2017/18 soybean exports are expected to decline to 5.55 million tons, a decline of 11 percent compared to the previous season. This is the result of lower soybean supplies due to expected lower production, nonetheless exports will continue to strong to traditional markets. 2016/17 exports are revised upward to 6.25 million tons due to more exportable supplies and greater demand from Argentina, Turkey,

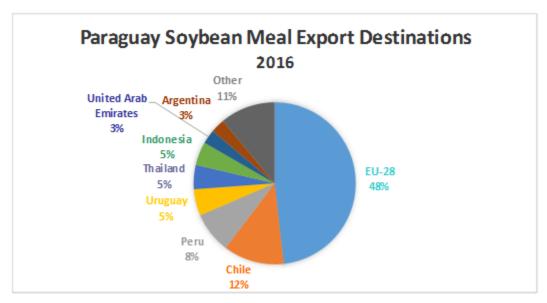
Brazil, and Mexico. Calendar 2016 exports demonstrate that the primary markets for Paraguayan soybean exports are the European Union, Russia, Argentina, Turkey, and Brazil.



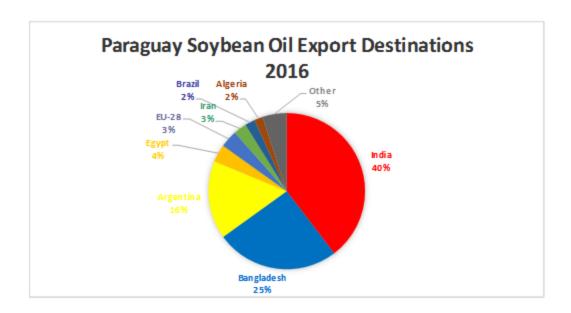
The dynamic between crush and whole bean exports has been at equilibrium for some time with whole bean exports encompassing 60 percent of soybean supplies while crush taking the remaining 40 percent. Whole bean exports are sought after in foreign markets as Paraguayan beans have higher protein levels and are used to blend with lower protein beans in foreign crush operations. This is especially the case in Argentina, as contacts estimate Paraguayan soybean exports to Argentina at 1.5 million tons for 2016/17. These shipments are primarily destined to the port of Rosario, Argentina where they will be crushed with Argentine soybeans – who generally have lower protein levels. In calendar year 2016, Paraguayan soybean exports to Argentina were 654,146 tons, a tremendous increase compared to 2015 as exports were only 22,764 tons. This is thanks to the Argentine governing permitting the tariff-free importation of soybeans from Paraguay for meal, oil, and biodiesel processing in January 2016 (http://www.eleconomistaamerica.com.ar/economia-eAm-argentina/noticias/7287984/01/16/Argentina-abre-la-importacion-de-soja-de-Brasil-Paraguay-y-Bolivia.html). This policy was put in place to spur Argentina's crushing industry which private estimates indicates was then working at only 65 percent of capacity.



2017/2018 soybean meal exports are forecast to decline to 2.73 million tons, a decrease of 9 percent compared to the previous year. This decline can be attributed to lower supplies as production as soybean production is expected to return to historical averages. 2016/17 exports are revised up to 3 million tons due to higher supplies and greater demand from the European Union, Chile and Uruguay. 2015/2016 exports are estimated at 2.45 million tons based on updated trade data.



2017/2018 soybean oil exports are forecast to decline to 680,000 tons. 2016/2017 soybean oil exports are revised up to 725,000 tons because of higher crush and greater demand from Bangladesh and Argentina. 2015/2016 exports are estimated at 682,000 tons based on updated trade data.



#### **Stocks:**

2017/18 soybean ending stocks are forecast to decline to 160,000 tons, due to lower production and a growing volume supplies diverted to exports and crush. Soybean meal and oil ending stocks are forecast to 57,000 and 1,000 tons, respectively. Stocks are mostly carried about processors and traders for commercial operations. Paraguayan producers tend not to store soybeans on farm as this product is quickly marketed after harvest. A growing number cooperatives and producer associations are investing in the construction of silos. This storage capacity will be used a tool to facilitate sorting and marketing of soybean supplies.

**Note:** The lack of strong, reliable government statistics contributes wide fluctuations in crop estimates by producers, cooperatives, industry and private crushers. Post estimates are based on analysis of incountry estimates.

## **Statistical Tables:**

Oilseed, Soybean			2016/2017		2017/2018	
Market Begin Year			Mar 20	17	Mar 2017	
Paraguay	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	3300	3300	3620	3450	0	3350
Area Harvested	3265	3250	3620	3450	0	3350
Beginning Stocks	17	17	293	233	0	173
Production	9220	9200	10100	10200	0	9400
MY Imports	6	6	7	7	0	7
MY Imp. from U.S.	0	0	0	0	0	0
MY Imp. from EU	0	0	0	0	0	0
Total Supply	9243	9223	10400	10440	0	9580
MY Exports	5310	5310	6200	6250	0	5550
MY Exp. to EU	1350	1350	1800	1800	0	2000
Crush	3600	3640	3900	3975	0	3825
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	40	40	44	42	0	45
Total Dom. Cons.	3640	3680	3944	4017	0	3870
Ending Stocks	293	233	256	173	0	160
Total Distribution	9243	9223	10400	10440	0	9580
(1000 HA), (1000 MT), (MT	/HA)					

Meal, Soybean	2015/2016 Mar 2016		2016/2017 Mar 2017		2017/2018 Mar 2017	
Market Begin Year						
Paraguay	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	3600	3640	3900	3975	0	3825
Extr. Rate, 999.9999	0.7861	0.7802	0.7846	0.795	0	0.7882
Beginning Stocks	113	113	200	225	0	87
Production	2830	2840	3060	3160	0	3015
MY Imports	0	2	0	2	0	0
MY Imp. from U.S.	0	0	0	0	0	0
MY Imp. from EU	0	0	0	0	0	0
Total Supply	2943	2955	3260	3387	0	3102
MY Exports	2450	2450	2710	3000	0	2725
MY Exp. to EU	1100	1100	1125	1125	0	1150
Industrial Dom. Cons.	0	0	0	0	0	0
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	293	280	325	300	0	320
Total Dom. Cons.	293	280	325	300	0	320
Ending Stocks	200	225	225	87	0	57
Total Distribution	2943	2955	3260	3387	0	3102
(PERCENT), (1000 MT)	-	-	-	-		-

Oil, Soybean	2015/2016 Mar 2016		2016/2017 Mar 2017		2017/2018 Mar 2017	
Market Begin Year						
Paraguay	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	3600	3640	3900	3975	0	3825
Extr. Rate, 999.9999	0.1908	0.1992	0.191	0.1962	0	0.1942
Beginning Stocks	17	17	3	4	0	1
Production	687	725	745	780	0	743
MY Imports	6	4	6	5	0	2
MY Imp. from U.S.	0	0	0	0	0	0
MY Imp. from EU	0	0	0	0	0	0
Total Supply	710	746	754	789	0	746
MY Exports	682	682	730	725	0	680
MY Exp. to EU	25	25	25	25	0	25
Industrial Dom. Cons.	0	0	0	0	0	0
Food Use Dom. Cons.	25	60	21	63	0	65
Feed Waste Dom. Cons.	0	0	0	0	0	0
Total Dom. Cons.	25	60	21	63	0	65
Ending Stocks	3	4	3	1	0	1
Total Distribution	710	746	754	789	0	746
(1000 MT) ,(PERCENT)						