

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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**Date:** 3/29/2019

**GAIN Report Number:**

## Paraguay

### Oilseeds and Products Annual

#### Minor Area Growth Expected to Increase Soybean Production in 2019/2020

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**Report Highlights:**

2019/20 Paraguayan soybean area is expected to increase minimally to 3.57 million hectares. Production is forecast to recover to 10 million tons as yields will return to historical averages after a drought during the 2018/19 season. Rising soybean exports to Argentina are expected to remain elevated around four million tons in 2019, according to local contacts. Dry conditions during December 2018 significantly hurt yield levels for the 2018/19 crop resulting in production at 8.8 million tons, 11 percent lower than Post's original production forecast.

**Commodities:**

Oilseed, Soybean

Meal, Soybean

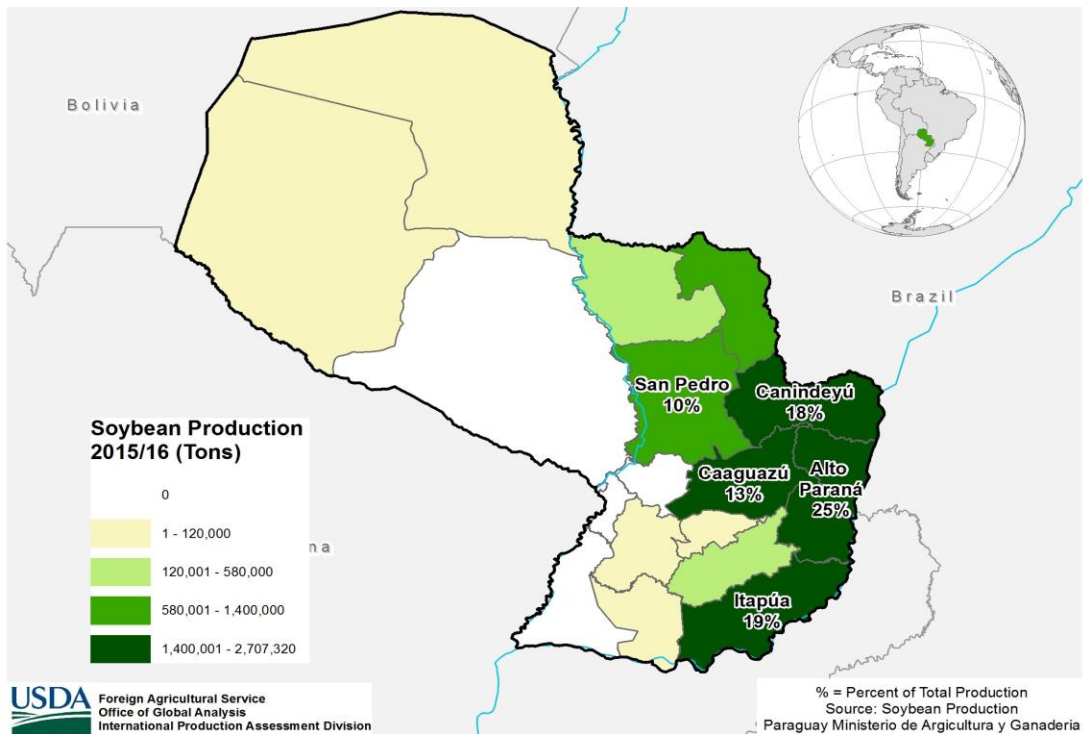
Oil, Soybean

**Production:**

2019/2020

Post forecasts 2019/2020 soybean area to increase minimally to 3.57 million hectares. Unless competition from the livestock sector in areas like San Pedro wanes and the Chaco region begins to develop more significantly, area growth will continue to be constrained in the near future. Moreover, the major producing departments of Itapúa, Alto Parana, Catineyu, and Caaguazu provide little to no room for expansion as soybean production has been active in this region for over a decade and a half. Yields are expected to return to historical average levels. Over the past decade, yields have increased an average of 6 percent per year. Based on this trend, Post expects 2019/20 yields to reach 2.8 tons per hectare. As such, Post forecasts production to reach 10 million tons in 2019/20.

**Map 1 – Paraguay Soybean Production by Department**



Source: USDA-IPAD [https://ipad.fas.usda.gov/rssiws/al/ssa\\_cropprod.aspx](https://ipad.fas.usda.gov/rssiws/al/ssa_cropprod.aspx)

Post forecasts the 2019/20 area planted for first crop soybeans (zafra) at 2.85 million hectares with second crop soybean (zafrina) area estimated at 750,000 hectares (bolstered by increased winter corn crop area). Yields have steadily risen over the past decade due to better soil management practices and incorporation of improved seed technology and other inputs. Thanks to these improvements, average soybean yields (with normal weather conditions) are now floating around 2.8 tons per hectare.

Contacts report that while capital expenditures grew over the past two years, they are expecting them to be flat into the next season. Many producers did not achieve the returns necessary to facilitate more significant investments necessitating restructuring operations to curb costs and lessen debts. Nonetheless, producers will invest in quality inputs (including new seeds, herbicides and fertilizers) to maximize yield potential. Overall, input prices are expected to rise by 5-10 percent next season. Select producers will face higher herbicide costs due to ongoing weed management problems that continue to worsen. Some producers are also planning to invest in new seed varieties which have assisted them in combating weed resistance.

Ongoing problems with rising weed/fungi resistance is resulting in a greater use of chemical applications and rising costs. Weeds and diseases such as fleabane (*Conyza bonariensis*) and soy rust are becoming more common and require more controls. Producers are having to apply on average 5-6 chemical controls per season when just a few years ago 2-3 applications were needed. Producers fear this trend will continue and more applications will be needed for each new season. In addition, producers are having to apply higher levels of fertilizer to guarantee yields, which is also raising costs significantly. Nonetheless, land demand continues to be strong with interest from domestic and international producers in southeast Paraguay, demonstrating that despite mounting challenges soybean farming continues to be a profitable enterprise.

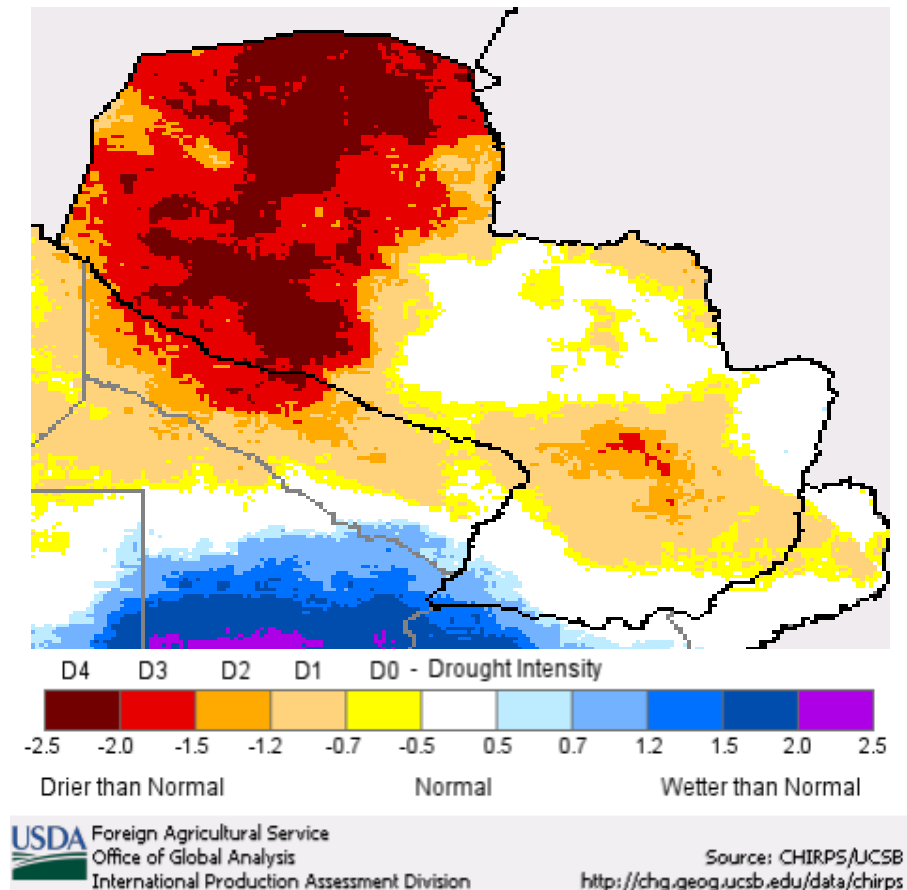
### *2018/2019*

Drought conditions during December 2018 compromised the 2018/19 crop as lack of rain for over 20 days lowered yields by about 10-15 percent, according to industry contacts. The departments of Caagndyu, San Pedro and Alto Parana (north of Ciudad Del Este) were the most affected by the drought while Itapua department and the southern part of Alto Parana withstood the drought much better because sowings occurred earlier in this area.

Due to the drought, Post has revised 2018/19 production down to 8.8 million tons, 11 percent lower than Post's original estimate. Nonetheless, producers are expected to make adequate returns as costs increased only minimally and above to above-average yields. These yield levels are life saving for many producers as current farm gate prices are over 20 percent lower than the price they received last year as the shortfall in Argentine supplies provided significant premiums for Paraguayan beans.

In addition to lowering yields, the drought also affected the quality of a portion of first crop soybeans. Industry analysts have reported smaller and underdeveloped (green) beans with lower protein levels. This type of bean quality has also complicated the unhusking and processing of beans in certain instances. It is expected that these beans will be directed to crush as they would not fulfill the specifications for whole bean exports.

## Map 2 – Drought Severity: December 2018-January 2019



**Note: Drought conditions map based on SPI 2-Month Drought Severity (Dec 1,2018-Jan 31, 2019)**

Although the steady decline in protein levels has been ongoing for at least the past five years, little consensus over what is responsible for such a decline has appeared. Some speculate that short cycle seeds may be the cause in addition to degrading soil quality due to soy double cropping. This is a significant issue for the crush sector as it endangers their possibility to differentiate Paraguayan soybean meal against the meal delivered by regional competitors. However, producers have paid little attention to this issue due to a lack of premium for delivering higher protein level beans.

Those producers who grew on their own area will extract greater returns than those who produced on rented area. Local contacts estimate that the break-even yield for soybean production is 1.3 tons per hectare. With the national average yield of 2.5 tons per hectare, margins on owned land should be healthy. However, the margins may not be enough for producers who produce on rented area who have to cover land rental costs at an additional 1.2 tons per hectare. As such, these may be able to break even or achieve slim margins as the yields and current prices are insufficient to secure better returns. These producers hope that higher second crop soybean yields could deliver them the returns they need. At present, producers are receiving a price of \$300 per ton for their soybeans.

Unlike its neighbors Argentina and Uruguay, where the majority of soybean production is completed on rented area, only 30 percent of soybean production is planted on rented area in Paraguay while landowners plant on their own area in the remaining 70 percent.

For input financing, producers often enter barter-like arrangements with providers who supply inputs in exchange for a negotiated volume of soybeans or monetary equivalent. Alternatively, financing is also available through private banks where all transactions are made in dollars at interest rates around 6 percent. These loans tend to be solicited by larger producers.

*2017/2018*

For 2017/18, Post revises production up to 9.9 million tons based on updated data from local sources.

### *Area Expansion*

Greater area expansion is limited by various factors but holds long term potential. In the Chaco region (area west of Paraguay river), harsh planting conditions (lower rainfall and elevated temperatures) and the lack of infrastructure make soybean planting unfeasible at present. As such, producers and researchers are working on the development of heat-tolerant soybean varieties that could flourish in the area. Currently Paraguay has an estimated 50,000 hectares of soybeans in this region<sup>1</sup>. Local observers believe that if this region's potential is unlocked, the country's soybean area could easily be doubled. However, this potential will also depend on larger macroeconomic and political factors that deliver the conditions necessary for producers and companies to invest in such a region.

Another area with the potential for area expansion are the departments of San Pedro and Concepcion, currently dominated by livestock. One report indicated that if part of this region was converted to soybeans, total planting could increase by 1 million hectares<sup>2</sup>. However, such a switch is unlikely at present due to sub-optimal soils, competition from the livestock sector (as local feeder prices are very attractive) and high upstart costs.

### *Soy Double Cropping*

Double-cropping of soybeans continues to alarm producer groups and the government. Double-crop soybean production is considered agronomically unwise and damaging to soils in the long-term. Nonetheless, while producers may acknowledge its potential long-term damage, they are driven current economic necessities. Zafra soybeans tend to be planted primarily in the months of September and October and harvested in January and February. Zafrina soybeans can then be planted as early as mid-February. Producer groups continue to encourage producers not to plant zafrina and to instead practice crop rotation with corn. While there has been speculation that the government would consider the banning of zafrina planting (which was done in select areas of Brazil), contacts report that the government has no plans to do such. Instead, producer groups have asked the government to lower value-added taxes for corn as a way to incentivize greater zafrina corn production.

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<sup>1</sup> <https://www.reuters.com/article/us-paraguay-soybeans-analysis/paraguay-soybean-exports-to-top-argentinias-for-first-time-idUSKCN1J00E5>

<sup>2</sup> <https://www.reuters.com/article/us-paraguay-soybeans-analysis/paraguay-soybean-exports-to-top-argentinias-for-first-time-idUSKCN1J00E5>

## **Consumption:**

### *Crush*

2019/20 crush is forecast to increase by 2 percent to 3.7 million tons due to greater available supplies because of an expected increase in production. The crush sector has a capacity of almost 4.5 million tons. This translates into a crush utilization rate of 82 percent for 2019/20. Thanks to Paraguayan soybeans' higher protein content, there was originally a shift towards more value-added processing as high protein soy meal delivered attractive price premiums to exporters in markets in South America (Ecuador, Peru, and Chile) and the EU. However, the processing sector has faced increased competition for supplies from the export sector due to the reopening of the Argentine market along with new trade dynamics such as the ongoing U.S. – China trade situation. For the past seven years, roughly 40 percent of the country's soybean production has been directed to crush while the remaining 60 percent of supplies were exported as whole beans (domestic consumption and stocks are generally negligible). However, this ratio has shifted slightly towards the export side over the past two years due to the above-mentioned reasons.

2018/19 crush is revised down to 3.6 million due to lower supplies because of the decline in production. Contacts report that crush margins are low, leading to January-February 2019 crush levels 11 percent below the same period last year and higher whole bean exports (40 percent higher than the same period last year).

### *Domestic Consumption*

Domestic consumption of soybeans and byproducts is minor in Paraguay. Soybeans and soybean meal are used in feed rations for the pork and poultry industries. Soybean use for cattle ration is very limited as most cattle feed on pastures and corn rations. Post forecasts 2019/20 soybean feed use to increase by 10 percent to 100,000 tons driven by expansion in the pork and poultry sectors. In addition, soybean meal consumption for 2019/20 is also forecast to increase due to sectorial expansion to 350,000 tons.

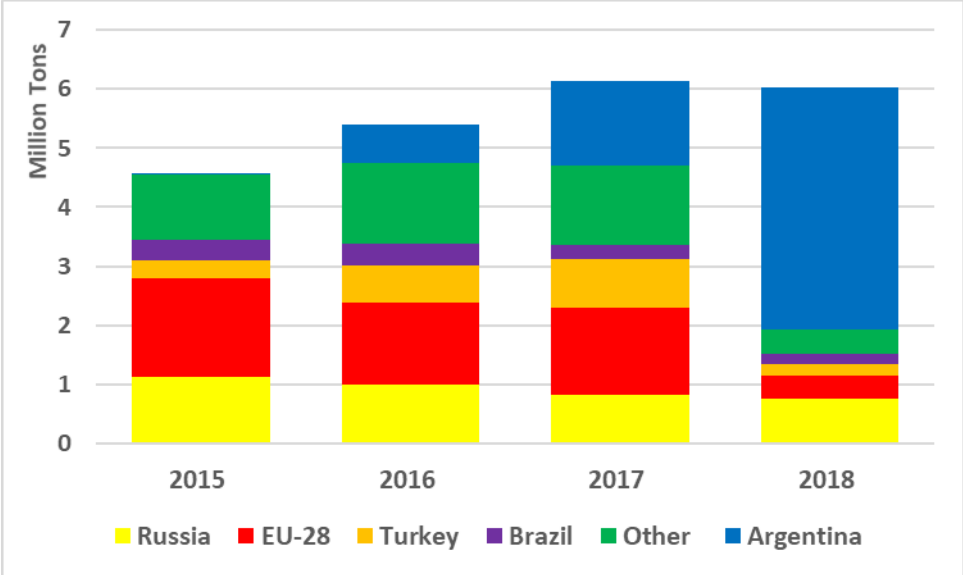
Expansion in the poultry and pork sectors has been aggressive over the past few years. Both sectors are now more focused on expanding their exports in support of continued growth in their industries. In 2018, pork and chicken meat exports grew by 59 and 23 percent, respectively, compared to 2017. This export increase was driven by greater exportable supplies and demand from Russia. The pork sector has been particularly aggressive in their efforts to increase production by investing in superior swine genetics to improve productivity.

## **Trade:**

2019/20 whole bean exports are forecast up to 6.2 million tons as a result of higher exportable supplies and strong demand from Argentina. 2018/19 whole bean exports are revised down to 5.1 million tons due to lower production. Whole bean exports are especially sought after in foreign markets as Paraguayan beans tend to have higher protein levels and are blended with lower protein beans in foreign crush operations. This is especially the case in Argentina which has a crush capacity of 65 million tons

for the development of soy meal and soy oil. After the Argentine government reopened the market in 2015 for soybean imports, Paraguayan shipments to Argentina exploded. In just four years, Paraguayan soybean exports to Argentina went from 20,000 tons in 2015 to over 4 million tons in 2018. Last year’s surge in exports to Argentina was driven by the massive decline in soybean production due to the drought in that country. Contacts estimate that these exports should continue to stay strong at around 3 to 4.5 million tons and will be influenced by the evolving U.S.-China trade situation, a projected recovery in Argentine soybean production and the competitiveness of soybean byproduct exports.

**Graph 1 – Paraguay Soybean Exports – Primary Markets**

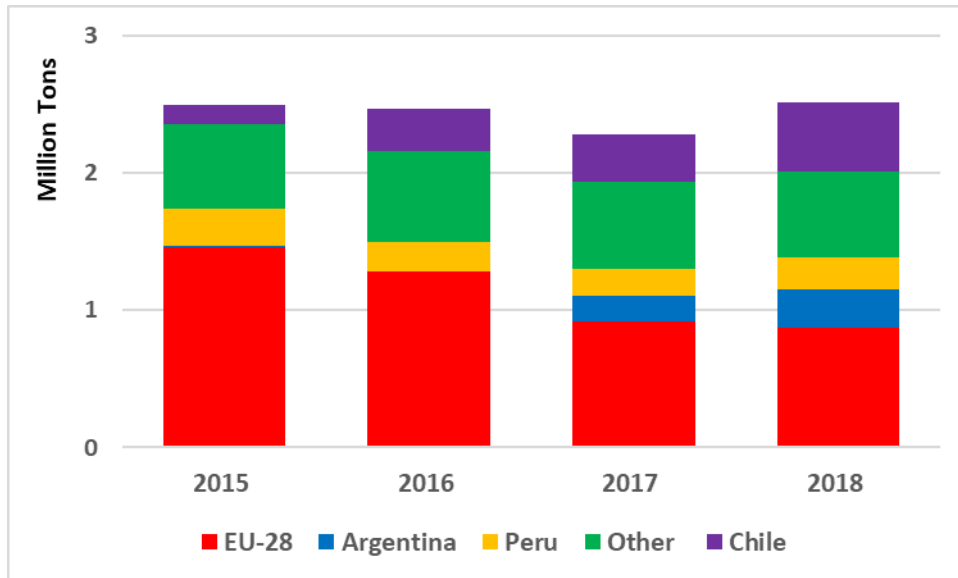


Source: Global Trade Atlas

In 2018, nearly 70 percent of soybean exports were destined to Argentina due to its local supply issues. The remaining 30 percent of exports were destined to traditional primary markets such as Argentina, Turkey, Russia, and the EU. Due to the predominance of the Argentine market in 2018, exports to traditional and emerging markets in South America and North Africa fell by over 50 percent. Nearly all Paraguayan soybeans are transshipped through ports in Rosario (Argentina) and Nueva Palmira (Uruguay) and are then shipped to their final destination. Most of these exports go through the port facilities of larger multinational exporters. Otherwise, exporters will use the port of Nueva Palmira.

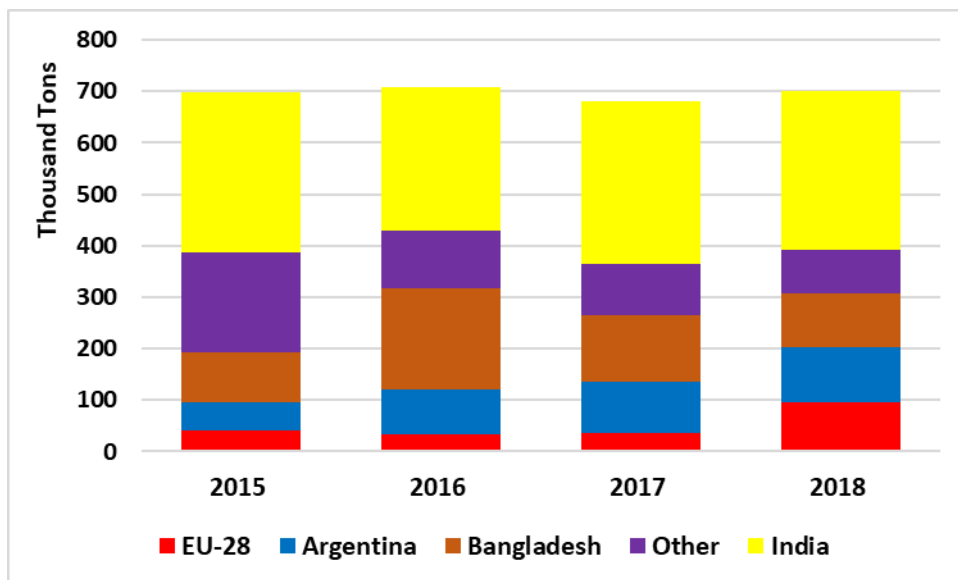
2019/20 soybean meal exports are forecast to grow slightly to 2.71 million tons driven by strong demand from Peru and Indonesia. 2018/19 soybean meal exports are revised up to 2.7 million tons. 2019/20 soybean oil exports are forecast to increase by 2 percent to 672,000 tons, driven by growing demand from EU. As in the case of whole beans, soy oil exports to Argentina experienced a noteworthy increase of 283 percent compared to the previous year. This soy oil was blended with Argentine supplies in order to improve their quality as the drought in Argentina also affected the quality of the beans in addition to yields.

**Graph 2 – Paraguay Soybean Meal Exports – Primary Markets**



Source: Global Trade Atlas

**Graph 3 – Paraguay Soybean Oil Exports – Primary Markets**



Source: Global Trade Atlas

**Stocks:**

Paraguay tends to hold minimal stocks for soybean and soybean products as these products are commercialized soon after harvest. Stocks are usually carried by elevators, processors, and exporters as part of the regular product flow. In addition, Paraguayan producers do not by custom store soybeans on the farm for marketing reasons, but this is changing as producers hope to secure better prices by withholding their beans pending market conditions. Storage capacity has increased over the years and is estimated at 8 million tons. 2019/20 soybean beginning stocks are forecast at 57,000 tons, in line with historical stock levels.



## Statistical Tables:

Oilseed, Soybean Market Begin Year Paraguay	2017/2018		2018/2019		2019/2020	
	Jan 2018		Jan 2019		Jan 2019	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	3400	3350	3300	3550	0	3570
Area Harvested	3400	3350	3300	3550	0	3570
Beginning Stocks	436	54	770	171	0	57
Production	10300	9900	9000	8800	0	10015
MY Imports	6	6	5	6	0	5
Total Supply	10742	9960	9775	8977	0	10077
MY Exports	6029	6029	5600	5200	0	6200
Crush	3870	3760	3900	3620	0	3700
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	73	0	75	100	0	110
Total Dom. Cons.	3943	3760	3975	3720	0	3810
Ending Stocks	770	171	200	57	0	67
Total Distribution	10742	9960	9775	8977	0	10077
Yield	3.0294	2.9552	2.7273	2.4789	0	2.8053

(1000 HA) ,(1000 MT) ,(MT/HA)

Meal, Soybean Market Begin Year Paraguay	2017/2018		2018/2019		2019/2020	
	Jan 2018		Jan 2019		Jan 2019	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	3870	3760	3900	3620	0	3700
Extr. Rate, 999.9999	0.7855	0.7819	0.7859	0.7859	0	0.7851
Beginning Stocks	221	221	147	343	0	158
Production	3040	2940	3065	2845	0	2905
MY Imports	0	0	0	0	0	0
Total Supply	3261	3161	3212	3188	0	3063
MY Exports	2629	2518	2580	2700	0	2710
Industrial Dom. Cons.	0	0	0	0	0	0
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	485	300	515	330	0	350
Total Dom. Cons.	485	300	515	330	0	350
Ending Stocks	147	343	117	158	0	3
Total Distribution	3261	3161	3212	3188	0	3063

(1000 MT) ,(PERCENT)

Oil, Soybean Market Begin Year Paraguay	2017/2018		2018/2019		2019/2020	
	Jan 2018		Jan 2019		Jan 2019	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	3870	3760	3900	3620	0	3700
Extr. Rate, 999.9999	0.1894	0.1912	0.1897	0.1892	0	0.1892
Beginning Stocks	8	8	8	0	0	0
Production	733	719	740	685	0	700
MY Imports	5	5	6	6	0	6
Total Supply	746	732	754	691	0	706
MY Exports	702	702	710	658	0	672
Industrial Dom. Cons.	0	0	0	0	0	0

<b>Food Use Dom. Cons.</b>	36	30	37	33	0	34
<b>Feed Waste Dom. Cons.</b>	0	0	0	0	0	0
<b>Total Dom. Cons.</b>	36	30	37	33	0	34
<b>Ending Stocks</b>	8	0	7	0	0	0
<b>Total Distribution</b>	746	732	754	691	0	706
(1000 MT) ,(PERCENT)						