Soybean & Corn Advisor, Inc.

Dr. Michael Cordonnier soycorn@comcast.net (630)325-0192

March 8, 2016 Volume 34, Issue 10

Additional articles can be found at: www.soybeansandcorn.com

Political Turmoil in Brazil not Good News for Brazilian Agriculture

After months of investigations and rumors, it looks like the ongoing Petrobras corruption probe is getting closer to former President Luiz Inacio Lula da Silva (Lula) and President Dilma Rousseff. Last Friday, the federal police took Lula in for questioning and executed 33 different search warrants of his home, his son's home, and various offices all in connection with the Lava Jato investigation – "Car Wash" in Portuguese. The long running political crisis now seems to be coming to a head.

In a "backward sort of way" the market views all this as a positive sign. Without a doubt, impeachment proceedings would be disruptive, but the market views this as maybe the beginning of the end of gridlock in Brasilia. Once all this gets behind them, the Brazilian Congress, and possibility a new president, could focus their efforts in getting the Brazilian economy out of the worst recession in a century. I do not know if that is a realistic assumption or not, but that is the market reaction, at least for now.

I am going to focus my comments on how all this might impact the agricultural sector in Brazil going forward. The agricultural sector in Brazil has been an island of prosperity in an otherwise sinking economy, but that may not be the case going forward. There definitely seems to be storm clouds building on the agricultural horizon in Brazil.

Agricultural Gross Domestic Product in Brazil – According to the Brazilian Minister of Agriculture, the Agricultural Gross Domestic Product (GDP) in Brazil for 2015 increased 1.8%, which was the second worst performance during Dilma's tenure as president, only surpassed by a 3% contraction in 2012 caused by dry weather and reduced production. The Agricultural GDP may actually not be as good as it seems because it was propelled forward by a 5.4% increase during the first trimester of 2015 only to lose steam as the year progressed. Even with that, the agricultural sector was the only sector in Brazil to register positive job growth in 2015.

Additionally, the gains in the agricultural sector were mainly the result of the significant devaluation of the Brazilian currency. Soybean receipts in 2015 were up 11.9%, corn was up 7.3%, oranges were down 3.9%, coffee was down 5.7%, and wheat was down 13.4%. The benefits of a devaluation of the currency is not likely to be repeated in 2016. In fact, the Brazilian currency strengthened significantly late last week, which resulted in declining domestic grain prices last week.

The Brazilian economy will probably contract 4% or more in 2016 after contracting 3.8% in 2015. The Brazilian economy is currently one of the worst preforming economies in the

world with lots of problems including: high inflation (10.5% officially and mid-teens unofficially), high unemployment (7.6% officially and rising, much higher unofficially), high interest rates (prime rate is 14.25% and typical bank rates in the low 20% range), and declining consumer spending. A shrinking economy and declining consumer spending is certainly not good news for the agricultural sector. Without the stimulation from a devalued currency, the agricultural picture in 2016 does not look good at all.

Devalued Brazilian Real – The devaluation of the Brazilian real over the past year has been a "god send" for the agricultural sector. It allowed Brazilian grain exports to be more competitive in the world market and it resulted in stronger domestic grain prices especially for corn. The combination of strong corn exports and declining full-season corn production has led to record high or near record high domestic corn prices. Domestic soybean prices have also been supported by the weaker currency. As a result, Brazilian farmers are benefiting from these "artificially" high grain prices.

Stronger Brazilian Real – I have said many times in the past that the exchange rate is often times more important to Brazilian farmers than the actual international grain prices and right now is another example of that. The Brazilian currency strengthened late last week when it appeared that the investigation was closing in on Lula and Dilma. This is not good news for Brazilian farmers. The result is falling domestic grain prices and farmer selling drying up. If the currency would continue to strengthen, Brazilian farmers would be confronted with more realistic grain prices instead of the artificially high grain prices that resulted from the devaluation.

As a result, farmers in Brazil could be confronted with higher costs and lower prices for the 2016/17 growing season – not a good combination.

2016/17 Harvest Plan – The Brazilian Farm Program, called the "Harvest Plan" is renewed on a yearly basis and it basically consists of offering low interest subsidized production loans for farmers. In 2015 for example, the amount of money available for these loans was increased for loans that included market interest rates (20-25%), but it was reduced for loans that included the subsidized interest rates (6-8%). Farmers complained last year that they ended up worse off under last year's plan even though there was more credit available. Details of the annual harvest plan is usually announced in April or May and the loans can be obtained starting on June 1st.

The Brazilian economy is in dire straits and the Brazilian Minister of Agriculture has already held meeting with farm groups looking for ways to avoid cutting back on available credit for the first time in decades. Given the dire situation facing the Brazilian economy, I would expect the 2016/17 harvest plan to be even less favorable for farmers than the 2015/16 plan. In the end, Brazilian farmers will probably have less credit available and at a higher cost.

Higher Production Costs – Even though soybean prices are higher in Brazil this year compared to last year, farmers complain that their profit margins are being squeezed due to increased production costs. Farmers survived these higher costs because of improved domestic grain prices, but that may not be true in the future. Inflation in Brazil is officially 10.5%, but

most analysts think the real rate of inflation is probably in the mid-teens. The cost of everything is increasing and as a result, farmer's profit margins are going to be squeezed even more.

Possible La Nina – It remains to be seen if El Nino will transition into a strong La Nina or not, but if it does, that would not bode well for the next growing season in Brazil. A strong La Nina generally correlates with hotter and dryer conditions in southern Brazil and Argentina and below trend line yields. There does not appear to be much of a correlation between a strong La Nina and the weather patterns in central Brazil. In general, a strong La Nina could result in declining grain production in Brazil.

Summary – Brazilian farmers have been fortunate in recent years with generally good yields and good prices, but the agricultural sector could face significant headwinds in 2016/17. But, we must always add the caveat that they might get "bailed out" again if we end up having a significant weather scare here in the U.S. during the upcoming growing season. Stay tuned.

Brazilian Truck Drivers Call for Strike on March 11th

The National Transport Command (CNT) of Brazil is calling for a general truck driver strike on March 11th in order to call attention to their ongoing grievances. Part of their demands include a 40% reduction in diesel fuel prices, retirement after 25 years of professional driving, better security on the highway, better working conditions, and a national base salary for professional drivers.

This job action has been organized on social media and it remains to be seen what level of participation there will be for this new protest. None of the official truck driver or transportation organizations have endorsed the work stoppage. In a survey conducted by CNT, 46% of the drivers feel high diesel prices are their biggest problem and 40% of the drivers say that the freight rates do not cover their costs.

The protest is coming one year after a similar labor action last February/March ended up blocking the nation's major highways for several weeks. The labor action last February/March caught the government by surprise and it only ended when the federal government and local law enforcement started imposing very hefty fines for truckers blocking the highways. The drivers tried a similar labor action late last year, but it fizzled in the face of threats of more fines.

It appears that the drivers learned from the last two protests because this time they propose shutting down trucking activities without blocking the nation's highways, but they have not elaborated on how they propose to accomplish that.

2015/16 Brazilian Soybean Estimate Unchanged at 100 Million Tons

The Brazilian soybean harvest is 41% complete according to AgRural. This is in line with last year and slightly ahead of the five-year average of 39%. Wet weather in central and southern Brazil last week slowed the harvest pace.

March 8, 2016 4

The 2015/16 Brazilian soybean estimate was left unchanged this week at 100 million tons and I have a neutral bias going forward. Soybean yields are variable in Brazil with some very good yields and some very bad yields (see next article).

The Mato Grosso Institute of Agricultural Economics (Imea) reported last Friday that 66% of the soybeans in the state have been harvested, which is slightly behind last year's pace. The average yield was estimated at 52.4 sacks per hectare (45.5 bu/ac), which was nearly identical to last year at this point. Rain is in the forecast for the next ten days which could slow down harvest progress and result in some quality issues.

Mato Grosso do Sul – While Mato Grosso has received less than the normal rainfall this growing season, the neighboring state of Mato Grosso do Sul has received too much rain. Approximately 60% of the state's soybean production is in the southern part of the state near the city of Dourados and during January and February, the city has received 20 inches of precipitation. This has resulted in localized flooding and it has delayed the soybean harvest.

In southern Mato Grosso do Sul, approximately 57% of the soybeans have been harvested and farmers are very concerned about the reaming soybeans that have been sitting in the rain for the last several weeks. Local agronomist feel it is too early to calculate the losses but they estimate that 15-40% of the remaining soybeans will be moldy and of very poor quality.

The one area where the Brazilian soybean crop is still in doubt is in northeastern Brazil. After about a month of dry weather and very high temperatures, some rain did start to move into western Bahia late last week. It was not enough to remedy the situation, but at least it was a start and there are more rains in the forecast for this week.

The rainfall will help the later planted soybeans but it is coming too late for the earlier planted soybeans. In the state of Bahia, the soybeans are 10% harvested and in the state of Maranhao the crop is 7% harvested. Early yield reports from both states indicate disappointing yields resulting from hot and dry conditions during the month of February when the early planted soybeans were filling pods. The early soybean harvest is just starting in the state of Piaui with very low yields being reported.

Some farmers in Rio Grande do Sul are worried that soybean rust may trim their soybean yields by 10% to 15%. The problem this year was wet weather that prevented them from applying the needed fungicides in a timely fashion. There is another problem as well and that is that some of the fungicides are losing their effectiveness against the disease. Some farmers made five fungicide applications, but the disease was still not adequately controlled.

Hardest Hit Soy Producing Municipality in Brazil is in Mato Grosso

Probably the hardest hit area of Brazil this growing season was the municipality of Ipiranga do Norte in the central part of Mato Grosso. Some areas of the municipality endured 50 days without rain last November and December, which severely impacted the soybean crop. The average yields in the municipality in recent years have been in the range of 55 to 60 sacks per hectare (47.8 to 52.2 bu/ac), but farmers this year are getting yields as low as 10 sacks per hectare (8.7 bu/ac).

March 8, 2016 5

The problem of dry weather started as soon as the crop was planted. Central Mato Grosso has a tropical climate and it generally rains a lot during the growing season. By this point in the growing season, the municipality generally receives 1,880 to 2,000 mm of precipitation (72 to 80 inches), but this year they have received approximately 450 mm of precipitation or 18 inches.

By U.S. standards, 18 inches of precipitation during the growing season does not sound too bad, but by Mato Grosso standards, it represent less than 25% of the normal rainfall. To make the situation even worst, the soils in the region have a very poor water holding capacity and the temperatures can be very hot. Poor water holding capacity is actually beneficially in an area where it rains so much, but when it doesn't rain, moisture deficits can develop very quickly.

A state of emergency has already been declared in the municipality and farmers do not know how they will be able to fulfill their forward contracts. Most farmers in the municipality do not have crop insurance and some of the grain companies have threatened to take them to court if they do not fulfill their contracts. No one seems to know how this impasse will be resolved.

2015/16 Brazilian Corn Estimate Unchanged at 84.0 Million Tons

The 2015/16 Brazilian corn estimate was left unchanged this week at 84.0 million tons and I have a neutral to higher bias going forward. Brazilian farmers would like to plant more safrinha corn than last year if the weather cooperates. There is a big financial incentive to plant safrinha corn in Brazil, but it remains to be seen if they will be able to plant all their intended corn before the planting window closes. In Mato Grosso the safrinha corn is approximately 83% planted and there will probably be very little corn planted past the end of this week.

In the state of Mato Grosso do Sul, wet weather has delayed the soybean harvest and subsequently the safrinha corn planting which is now 46%. On the southern part of the state, the corn is 47% planted with 35% planted in central regions and 30% planted in northern regions. Farmers in the state only have until approximately March 15th to finish planting. After that date, there is too much risk of cold weather impacting the crop before it matures. According to the Agricultural and Livestock Confederation (Famasul), for each day that the safrinha corn is planted past the ideal time, the average yield declines by 3 sacks per hectare or 2.7 bu/ac.

The Brazilian government attempted to ease the corn shortages for livestock producers in southern Brazil by auctioning off some of the government owned corn, but the auctions ended up being very disappointing. Conab put up 448,000 tons of corn for auction, but only 240,000 tons of corn were sold or 53.5% of the total.

The biggest problem was that the corn was offered in regions where the demand is low and logistical costs are high in order to get the corn to where it was needed. The corn was available in Mato Grosso in central Brazil, but the corn shortages are in southern Brazil. Another problem was the starting prices for the auction were very high and obviously they were too high for most bidders.

2015/16 Argentina Soybean Estimate Unchanged at 60 Million Tons

The weather in Argentina continues to be beneficial for most of the country's soybean crop at a critical time for the crop development. The earlier planted soybeans are in the midst of pod filling and the later planted soybeans are flowering and setting pods. There are some areas where the moisture has been excessive. The earliest planted soybeans in central Argentina are approaching maturity and the first soybeans might be harvested within two weeks.

The 2015/16 Argentine soybean estimate was left unchanged this week at 60.0 million tons and I have a neutral bias going forward. It is hard to pinpoint any significant problem with the Argentine soybean crop except for the areas of excessive moisture.

2015/16 Argentina Corn Estimate Unchanged at 25.0 Million Tons

The early start to corn harvesting in Argentina is being slowed by wet fields and wet roads. The Buenos Aires Grain Exchange reported last week that approximately 1.9% of the corn crop has been harvested, which is about 1% slower than a year earlier. Most of the early harvesting is occurring in the central part of the country where farmers are first to plant their corn. Early planted corn (planted between late September and early November) only represents approximately 40% of Argentina's total corn crop.

Early yields are in the range of 7,000 to 9,800 kg/ha (108 to 151 bu/ac) which may not sound very good, but they are actually above historical averages. The yields are expected to remain above average and increase as the harvest progresses. The condition of the corn crop in Argentina is generally rated good to very good although wet fields are preventing some farmers from controlling some of the late-season diseases.

The 2015/16 Argentine corn estimate was left unchanged this week at 25.0 million tons and I have a neutral bias going forward.

2015/16 South American Soybean Production

_ ·	0 = 0 / = 0 ~ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		~ 0 , ~ 0 0 0 0 0 0 0 0	
	Current		·	2014/15
Country	Estimate	Maximum	Minimum	Production
		million metric to	ns	
Brazil	100.0	103.0	98.0	96.2
Argentina	60.0	62.0	59.0	61.4
Paraguay	8.8	9.3	8.3	8.1
Bolivia	3.0	3.3	2.7	2.6
Uruguay	3.5	3.8	3.2	3.1
Total	175.3	181.4	171.2	171 4

2015/16 South American Corn Production

	Current			2014/15
Country	Estimate	Maximum	<u>Minimum</u>	Production
		million metric to	ns	

Brazil	84.0	87.0	81.0	85.0
Argentina	25.0	27.0	23.0	27.0
Paraguay	3.1	3.4	2.7	3.0
Bolivia	0.7	0.8	0.6	0.7
Uruguay	0.5	0.6	0.4	0.5
Total	113.3	118.8	$1\overline{07.7}$	116.2

2015/16 South American Soybean and Corn Acreage

	Soybeans		Col	rn
Country	2014/15	2015/16	2014/15	2015/16
		millions of hectar	es	
Brazil	31.9	33.3 (+4.3%)	15.7	15.7 (0%)
Argentina	20.5	20.5 (0%)	3.2	3.0 (-6.2%)
Paraguay	3.2	3.4 (+ 4.0%)	0.7	0.7 (0%)
Bolivia	1.08	1.28(+ 18.0%)	0.3	0.3 (0%)
Uruguay	1.4	1.5 (+ 7.0%)	0.1	0.1 (0%)
Total	58.08	59.98(+ 3.2%)	20.0	19.8 (- 1.0%)

South American Crop Ratings

No changes were made in this week's ratings for the crops in Brazil and Argentina.

2015/16 South American Growing Condition Ratings

	March 8, 2016	Prior Week
Brazil soybeans	5-6	5-6
Brazil full-season corn	7	7
Brazil safrinha corn	5	5
Argentina soybeans	8	8
Argentina corn	8	8

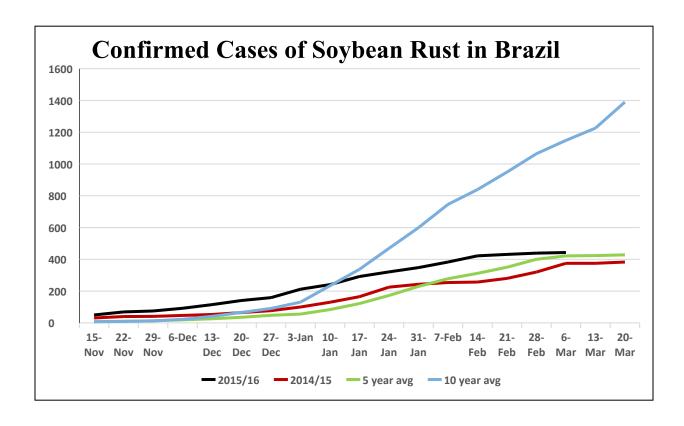
A rating of 1 means that the growing conditions are very detrimental and a 10 means that the growing conditions are ideal.

Only 4 new Cases of Soybean Rust Reported in Brazil

There were only 4 new cases of soybean rust reported in Brazil last week. Embrapa is now reporting 443 confirmed cases of soybean rust in Brazil. The state of Parana has the most with 121, followed by Rio Grande do Sul with 118, Goias with 71, Mato Grosso do Sul with 64, Mato Grosso with 24, Sao Paulo with 13, Bahia with 11, Tocantins with 7, Santa Catarina with 5, Minas Gerais with 5, Maranhao with 3, and Rondonia with 1. Last year at this time there were 375 cases. The 5-year average for this date is 421 and the 10-year average is 1,148. The worst year was 2006/07 with 2,250 cases and the best year was 2011/12 with 258 cases.

As you can see from the graph below, we are approaching the end of monitoring the number of confirmed cases of soybean rust in Brazil. We will be reporting the number of rust cases for two more weeks. There might be a few more cases of rust reported in northeastern Brazil, but that would probably be the only location.

This year started out looking like it could be a bad growing season for rust all across Brazil, but it only ended up being a problem in southern Brazil where heavy rains prevented farmers from making timely fungicide applications. Some farmers in Rio Grande do Sul made five fungicide applications, but the disease still caused reduced yields. Part of the problem is that some of the older fungicides are no longer effective against the disease because the disease has developed resistance.



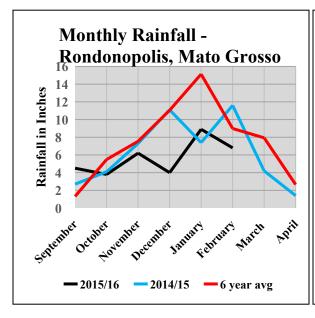
Rainfall in Southeastern Mato Grosso

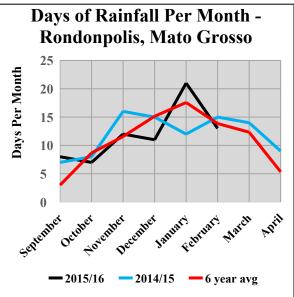
As I have been reporting for several weeks, the rainfall data since February 1st is for the city of Poxoreo, Mato Grosso, which is about 60 miles north of Rondonopolis.

Monthly Rainfall in Rondonopolis, Mato Grosso

Month	Total Rainfall <u>in Inches</u>	Number of Days With Measurable Rain
July 2015	0	0
August 2015	0.3	1

September 2015	4.5	8
October 2015	3.8	7
November 2015	6.2	12
December 2015	4.0	11
January 2016	8.9	21
February 2016	6.8	13
March 2016 (one week)	1.0	4





Michael Cordonnier

Copyright 2016. This material is copyrighted and may not be reproduced or distributed, in whole or in part, without written permission. The Soybean And Corn Advisor is issued weekly and questions and comments can be directed to Dr. Michael Cordonnier, Soybean And Corn Advisor, Inc., and P.O. Box 86, Hinsdale, IL 60522 (630) 325-0192; email - soycorn@comcast.net. Projections and estimates are based on information, which is believed to be accurate. No representation is made that the estimates will, in fact, be realized. The Soybean And Corn Advisor, Inc., assumes no liability whatsoever for the use of this information.