Date: 6/5/2019
GAIN Report Number:

Bolivia

Post: Lima

Soybeans Bolivia Adopts Biotechnology

Report Categories:
Oilseeds and Products
Biotechnology - GE Plants and Animals

Approved By:
Kirsten Luxbacher

Prepared By:
Gaspar E. Nolte

Report Highlights:
The Government of Bolivia approved two new genetically engineered events for soybeans in April 2019. Previously, the only approved GE event in Bolivia was glyphosate-resistant soybean. The Government of Bolivia is also considering approving the use of biotechnology for corn and cotton. Bolivian soybean production in calendar year (CY) 2019 is estimated at 2.4 million tons (MMT).

General Information:
In April 2019, the Bolivian government approved two new genetically engineered events for soybeans. It is also considering approving the use of biotechnology for corn and cotton. Until this recent approval, the only genetically engineered seed approved for cultivation in Bolivia was the glyphosate-resistant soybean.

Bolivian soybean production in calendar year (CY) 2019 is estimated at 2.4 million metric tons (MMT). An intense drought in the production area at the beginning of CY 2019 affected 34 percent of the one million hectares (2.5 million acres) planted in the summer (November-March), reducing production by about 450,000 MT.

Soybeans continue to be Bolivia's largest agricultural export. Total soy product exports in 2018 were $1.7 billion, second only to hydrocarbons. Soybean meal exports reached 1.6 MMT in 2018 and are expected at 1.4 MMT in CY 2019.

Production:
Bolivian soybean production in calendar year (CY) 2019 is estimated at 2.4 million metric tons (MMT). An intense drought in the production area at the beginning of CY 2019 affected 34 percent of the one million hectares (2.5 million acres) planted in the summer (November-March), reducing production by about 450,000 MT. Domestic demand for soybeans in CY 2019 is estimated at 650,000 MT of bean equivalent.

Soybeans are mostly produced in the Santa Cruz region, Bolivia's economic and agricultural powerhouse. There are two crops per year.

- Summer: Planting during November-December and harvest in March-April. This is the most important season accounting for about 70 percent of the annual crop. A severe drought earlier in the season affected 350,000 soybean hectares, reducing yields considerably. Summer production is estimated at 1.85 MMT. Average yields subsequently fell from 2.2 to 1.8 MT per hectare.

- Winter: Planting in June-July and harvest in October-December. FAS Lima estimates harvested area for the 2019 winter crop at 260,000 hectares and production at 570,000 MT.

Soybean yields vary considerably, from 1.8 to 2.4 MT per hectare, depending on efficiency and technical know-how of producers. The average yield in the 2018 winter crop was 2.2 MT per hectare. The cost of production per hectare is about $320.

Soybeans are the most important crop in Bolivia, accounting for 45 percent of the total agricultural land nationwide and 55 percent of the agricultural land in Santa Cruz. Soybean production accounts for three percent of Bolivia's GDP, 10 percent of total exports, directly employs 45,000 workers and generates 65,000 jobs downstream.

Soybean production in Bolivia is in the hands of small producers; there are about 14,000 soybean producers in Bolivia with the following structure:

- 77 percent own less than 50 hectares
- 21 percent own between 50 and 1,000 hectares
- 2 percent own more than 1,000 hectares

Total crushing capacity in Bolivia is 7,500 MT per day, enough to process the entire crop. In 2018, one of the largest Peruvian food processing companies, Alicorp, acquired the two largest crushing companies in Bolivia, ADM-SAO, with about 35 percent of the market, and Fino (previously owned by some of Alicorp's shareholders), with 25 percent. After this merger of ADM-SAO and Fino, a third company, Rico, is now the second largest crushing plant and accounts for 25 percent of the market. About 80 percent of the country's storage capacity is owned by processing companies and 20 percent by independent intermediaries.

One of the most influential organizations in Bolivia is the oilseeds producers association (ANAPO), which negotiates import duties for inputs and export permits with the Government of Bolivia. It also provides seeds, inputs, and technical assistance (extension) to producers.

Trade:

Soybeans continue to be Bolivia's largest agricultural export. In 2018, soy product exports totaled $1.7 billion, second only to hydrocarbons. Soybean meal exports reached 1.6 MMT in 2018 and are expected to reach 1.4 MMT in CY 2019.

Bolivian Soybean Product Exports (CY 2018)		
Product	**Volume (TMT)**	**Value (Million $)**
Meal	1,549	529
Crude oil	377	254
Beans	7	3
Total	1,933	786

The Andean countries (Chile, Colombia, Ecuador, and Peru) are the most important and almost only, markets for Bolivian soybean products. Exports to these countries in CY 2018 were as follows:

Distribution of Bolivian Exports (CY 2018)		
Soybeans (TMT)	**Soybean Meal (TMT)**	**Crude Oil (TMT)**
Peru 7	Colombia 667 Peru 593 Ecuador 168 Chile 80	Colombia 255 Ecuador 82 Peru 22 Chile 17

Since Bolivia is a landlocked country, the cost of transportation is expensive and one of the main concerns of Bolivian exporters. It actually costs less to ship product from the Gulf of Mexico to any

Andean country. For example, freight costs from the Gulf of Mexico to Colombia or Peru are $28 per MT, compared to $110 per MT from Bolivia to Colombia and $125 to Peru.

Policy:

The Bolivian government has challenged agricultural producers to double production area. Paradoxically, the Government of Bolivia has implemented a series of legislations that discourage investment in agriculture and have resulted in reduced production. This includes a ban on free exports. Producers have to request export permits for which the government demands that local demand is satisfied at "reasonable" prices.

Technology: In April 2019, the Government of Bolivia approved two new genetically engineered events for soybeans. It is currently considering approving the use of biotechnology for corn and cotton. Producers have demanded approval for widespread use of biotechnology to increase productivity and reduce costs that will allow them to be at the same efficiency level as their competitors. Until April 2019, the only genetically engineered seed approved for cultivation in Bolivia was the glyphosate-resistant soybean.

Export Permits: The Government of Bolivia established an export permit system that requires producers to sell their product in the local market at "socially responsible" prices (frequently below the cost of production) until domestic demand is satisfied. As a result of this measure, the oilseeds industry in Bolivia loses $30 million per year. Additionally production of certain crops has decreased to the point where Bolivia has had to begin importation. For example, Bolivia imported corn for the first time ever in 2013 and rice in 2014. In May 2019, the government approved legislation that allowed for the export of up to 60 percent of the soybean crop, but still demands applications and justifications before it will issue export permits. Producers continue to demand the elimination of the export permit system. According to producers, access to export markets would enable a better internal price regulation. Currently, producers are paid $225 per MT. They claim it could increase up to $300 if exports were allowed.

Land Tenure: According to the Land Reform legislation approved by President Morales, land has to serve an economic and social purpose. This legislation includes provisions to expropriate idle land. The law does not contemplate soil recuperation periods or financial stress. Thus, if a producer is not planting a field due to lack of credit, anyone can take him to the Land Reform Institute and file to expropriate. This causes significant uncertainty and deters investment.