BIOTECH COUNTRY
FACTS & TRENDS

Brazil

Brazil is the second largest producer of biotech crops in the world, next to the US, planting 50.2 million hectares of biotech crops in 2017.

In 2017, the total biotech crop area of 50.2 million hectares in Brazil comprised: 33.7 million hectares biotech soybeans, 15.6 million hectares biotech maize, and 0.9 million hectares biotech cotton.

Of the 52.6 million hectares total area planted to soybeans, maize, and cotton in Brazil in 2017, 94% was biotech.

Biotech soybeans had the highest area, and was planted in 33.7 million hectares, up from 32.7 million hectares in 2016, equivalent to 3% growth and 97% adoption rate.

Biotech maize remained the second important crop in Brazil in 2017. The total biotech maize area in the country was 15.6 million hectares for both summer and winter, with an increased adoption rate of 88.9%.

Biotech cotton was planted in 0.9 million hectares in 2017, an increase of 19% over 2016, with an adoption rate of 84%.

ADOPTION OF BIOTECH CROPS IN BRAZIL

Biotech soybeans occupied 97% of the 34.7 million hectares total soybean area in Brazil in 2017. The 33.7 million hectares biotech soybeans comprised: 13.6 million hectares herbicide tolerant and 20.1 million hectares stacked IR/HT.

The 15.6 million hectares biotech maize in Brazil in 2017 was comprised of 3.3 million hectares IR, 0.65 million hectares HT, and 11.7 million hectares IR/HT.

Of the 0.9 million hectares of biotech cotton planted in Brazil in 2017, 11% is IR, 30% is HT, and 59% is IR/HT, with an adoption rate of 84%.

COUNTRY SITUATIONER

Brazil is one of the world's leading exporters of biotech soybeans, maize, and cotton to China, the European Union (EU), and to other countries in Asia including

Iran. Being an exporter drives increasing biotech crop adoption, as well as high public acceptance, farmer satisfaction, and enabling government regulation in Brazil.

Brazil hosted the 34th Regular Meeting of the Southern Agricultural Council in Sao Paulo on August 29, 2017. The Brazilian Agriculture Minister, together with counterparts from Argentina, Bolivia, Chile, Paraguay, and Uruguay signed a joint statement with three points, including new technologies for improving and accessing GM products to third markets. The six countries emphasized the need to urge the EU and China, which are big importers of biotech products from these countries, to stop delaying GMO import authorization (Crop Biotech Update, September 6, 2017).

Biotech sugarcane event CTC20BT was approved by CTNBio in 2017. The first biotech sugarcane approved for cultivation has resistance to the country's main insect pest, the sugarcane borer (*Diatrarea saccharalis*) which causes losses of up to some Real $5 billion (US$1.6 billion) annually. CTC20BT was developed by Centro de Tecnologia Canavieira (CTC) to contain the same Bt gene used in soybean, maize, cotton, and eggplant (Crop Biotech Update, June 14, 2017).

National and multinational companies and public sector research institutions in Brazil are developing various biotech crops. Such crops in the pipeline waiting for commercial approval include sugarcane, potatoes, papaya, rice, and citrus. Except for sugarcane, most of these crops are still in early stages of development.

BENEFITS FROM BIOTECH CROPS IN BRAZIL

The economic benefit to Brazil from biotech crops for the period 2003-2016 was US$19.8 billion and US$3.8 billion in 2016 alone (Brookes and Barfoot, 2018).

A global study of benefits from biotech crops covering the period 2003 to 2016 concluded that Brazil gained US$19.8 billion in 2003 to 2016, and US$3.8 billion for 2016 alone (Brookes and Barfoot, 2018).

CONCLUSION

Brazil continues to lead the biotech crop adoption in Latin America with its average adoption rate of 94% (a 2% increase compared to 2016) for biotech soybeans, maize, and cotton in 2017.

Soybeans are still the major biotech crop in Brazil, followed by maize and cotton. The area grown to biotech soybeans and cotton increased significantly in 2017 due to profitability, higher prices, high market demand both domestically and internationally, and available seed technologies. Slight reduction in biotech maize area was due to low current prices and the expansion of soybean area in the country. Future expansion of these three biotech crops may come with the increasing domestic and global demand for protein for food, animal feeds, biofuel production, and raw cotton materials.

New products such as biotech dry edible beans, biotech eucalyptus, and the recently approved biotech sugarcane will be commercially available by 2019-2020. Biotech/GM mosquitoes are also being used to control viral diseases that have afflicted millions of Brazilians. With the increasing adoption of biotech crops in the country, knowledge on protecting the technology among farmers and crop producers is essential and steps have to be taken to this end.

SOURCE

ISAAA. 2017. Global Status of Commercialized Biotech/GM Crops in 2017: Biotech Crop Adoption Surges as Economic Benefits Accumate in 22 Years. *ISAAA Brief* No. 53. ISAAA: Ithaca, New York.

For more information, contact:

ISAAA *SEAsia*Center
GS Khush Hall, IRRI
Los Baños, Laguna 4031 Philippines
Telefax: +63 49 5367216
Email: knowledge.center@isaaa.org

ISAAA

www.isaaa.org