



BIOTECH COUNTRY FACTS & TRENDS

Argentina

Argentina maintained its ranking as the third largest producer of biotech crops in the world in 2018, occupying 12% of the global biotech crop hectareage.

Argentina planted a total of 23.9 million hectares of biotech crops in 2018. This area was comprised of 18 million hectares biotech soybeans, 5.5 million hectares biotech maize, and 370,000 hectares biotech cotton.

Soybeans grown in Argentina in 2018 were 100% biotech. Out of the 18 million hectares biotech soybeans, 13.68 million hectares were herbicide tolerant (HT) and 4.3 million hectares were stacked insect resistant (IR)/HT.

Out of Argentina's total maize area of 5.7 million hectares in 2018, 97% or 5.51 million hectares were biotech maize. This area comprised of 42,000 hectares IR, 526,000 hectares HT, and 4.94 million hectares stacked IR/HT.

In 2018, the total biotech maize area in Argentina increased by 10% from 4.9 million hectares in 2016 to 5.4 million hectares in 2017.

Biotech cotton area in Argentina increased by 60% from 250,000



hectares in 2017 to 400,000 in 2018. However, adoption rate decreased to 93%, and all are stacked IR/HT traits.

COUNTRY SITUATIONER

The total area of biotech crops planted in Argentina increased by 1.3% from 23.6 million hectares in 2017 to 23.9 million hectares in 2018.

Soybean stacked trait Intacta™ which was introduced to farmers in 2015 and launched on 70,000 hectares, increased by 40.2% from 2017, an indication of farmers adopting a technology that reduces costs and increases profits.

After the previous years' low number of approvals, the Argentinian government through the Argentine National Advisory



Committee on Agricultural Biotechnology (CONABIA) approved eight biotech crop applications in 2018: seven full approvals comprised of four IR/HT maize stacked events, two HT soybeans, and alfalfa event, plus one soybean event for food, feed, and processing only.

The newly approved alfalfa stacked HT and low lignin event MON-ØØ179-5 x MON-ØØ1Ø1-8, and intermediates MON-ØØ179-5 (HarvXtra™) and MON-ØØ1Ø1-8 (RR™) will be made available to farmers within the year. Since China is the most important market for Argentinian agricultural products, the government includes a statement in every final approval of a biotech event that the event must be approved in China before being commercialized.

Other products in the pipeline for commercialization, and are in the final stages of evaluation are: a) HB4 wheat with drought tolerance trait awaits commercial approval by the National Direction of Agricultural Food Markets (DNMA) under the Ministry of Agro-Industry; b) INDEAR HB4, a drought resistant soybean event, developed by local researchers from INDEAR that has 30% increase in under extremely dry conditions; c) Chinese soybean

event DBN 09004-6 with tolerance to glyphosate and glufosinate-ammonium herbicides; and d) the Intrexon company's non-browning apples which has started field trials in Argentina.

BENEFITS FROM BIOTECH CROPS IN ARGENTINA

Recent data on the economic benefits from biotech crops by Brookes and Barfoot (2018) estimated that Argentina had enhanced farm income from biotech crops by US\$23.7 billion in 21 years of commercialization (1996-2016), and the benefits for 2016 alone were US\$2.1 billion. This is a huge economic benefit for the 130,000 farmers, their families, and their communities.

Another comprehensive study published by Eduardo Trigo on the benefits of biotech crops (soybeans, maize, and cotton) in Argentina for the 21 years of commercialization (1996-2016) indicated a gross benefit of US\$126.97 billion, an unprecedented increase of 75% in benefits from the previous US\$72.4 billion which was determined by Trigo in 2011. In a social context, the study estimated that in over a 20-year period, this surplus should have created a total of 2,052,922

jobs considering the surplus generated from these technologies.

In his study, Trigo also mentioned the environmental impacts related to GM crops, and emphasized the synergy between the adoption of these technologies and no-till farming practices by noting the positive impact of the latter on the conservation of soil, the emission of greenhouse gases, carbon sequestration, and the energetic efficacy of crop management.

SOURCE

ISAAA. 2018. Global Status of Commercialized Biotech/ GM Crops in 2018: Biotech Crop Continues to Help Meet the Challenges of Increased Population and Climate Change. *ISAAA Brief* No. 54. ISAAA: Ithaca, New York.

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