BEYOND PROMISES: Facts about Biotech/GM Crops in 2017
Biotech/GM crop area increased more than 100-fold from 1.7 million hectares in 1996 to 189.8 million hectares in 2017.
2017 was the 22\textsuperscript{nd} year of commercialization of biotech/GM crops. The experience of the last 22 years of commercialization confirmed the promise of biotech crops to deliver substantial agronomic, environmental, economic, health, and social benefits to small and large scale farmers worldwide.

Biotech crops are the fastest adopted crop technology in recent history, reflecting farmer satisfaction of their benefits and high adoption rates.

This booklet presents the important highlights about biotech/GM crops in 2017, from ISAAA Brief 53 \textit{Global Status of Commercialized Biotech/GM Crops in 2017} available at http://www.isaaa.org/.
The number of countries planting biotech crops quadrupled from 6 in 1996 to 24 in 2017.
Biotech/GM crop area in 2017 attains new record-high adoption at 189.8 million hectares worldwide

On the 22nd year of commercialization of biotech/GM crops in 2017, 24 countries grew 189.8 million hectares biotech crops, an increase of 3% or 4.7 million hectares from 185.1 million hectares in 2016.
FACT 2

Biotech/GM crop area increased ~112-fold from 1996, the fastest adopted crop technology in the world

The cumulative global area of biotech/GM crops reached 2.3 billion hectares in 22 years (1996-2017) of biotech/GM crop commercialization.

The successful adoption rate of biotech/GM crops shows the significant benefits it delivers to small and large farm-holders, as well as consumers.
The average biotech/GM crop adoption rate of top five countries increased in 2017 to reach close to saturation.
Brazil continues to be the top developing country in 2017, planting biotech soybeans, maize, and cotton.
In 2017, 67 countries adopted biotech crops — 24 countries planted and 43 additional countries imported.

Biotech/GM crops in 2017 were grown by 24 countries — 19 developing and 5 industrial countries. Developing countries grew 53% of the total global biotech crop area.

An additional 43 countries (17 + 26 EU countries) formally imported biotech/GM crops for food, feed, and processing. Thus, a total of 67 countries adopted biotech/GM crops.
From 1996 to 2017, 4,133 regulatory approvals were issued for 26 biotech/GM crops

From 1992 to 2017, 4,133 approvals were issued by regulatory authorities for 26 biotech/GM crops and 476 events. Such approvals were issued to biotech crops for food use (1,995), feed use (1,338), and for environmental release or cultivation (800).
Biotech/GM maize has the largest number of approved events: 232 in 30 countries.
Biotech/GM soybeans reached 50% of the global biotech crop area in 2017.
The major biotech/GM crops grown in 2017 are soybeans, maize, cotton, and canola.

In 2017, four biotech/GM crops comprised the most number of hectares: soybeans (94.1 million hectares), maize (59.7 million hectares), cotton (24.21 million hectares), and canola (10.2 million hectares).

Other biotech crops grown in 2017 include alfalfa, sugar beet, papaya, squash, eggplant, potato, apples, and pineapple.
Stacked traits occupied 41% of the global biotech/GM crop area

Biotech/GM crops with stacked traits increased from 75.4 million hectares in 2016 to 77.7 million hectares in 2017, a 3% increase equivalent to 2.3 million hectares.

In 2017, 15 countries planted biotech crops with stacked traits, 12 of which are developing countries.
Stacked traits are favored by farmers for all three major biotech crops: maize, soybeans, and cotton.
Biotech Innate® potatoes with non-bruising, non-browning, reduced acrylamide, and late blight resistance traits were planted in the USA and Canada in 2017.
Biotech/GM crops provide more diverse offerings to consumers in 2017

Biotech/GM crops have expanded beyond soybeans, maize, cotton, and canola to give more choices to consumers and food producers. These biotech crops include alfalfa, sugar beets, papaya, squash, eggplant, potatoes, and apples, all of which are already in the market.
Global food insecurity is a leading problem in the developing world, and experts believe that food production must increase by 70% to feed the world’s growing population.

Climate change is another challenge that can cause a 23% decline in major crop production. Adoption of biotech/GM crops is one of the most effective crop adaptation technologies to address food security and combat climate change.
Crop varieties developed through biotechnology will help the world cope with salinity, submergence, and drought stresses.
7.5 million farmers in India planted 11.4 million hectares of Bt cotton in 2017.
Up to 17 million farmers from 24 countries planted biotech/GM crops in 2017

More than 95% or 16-17 million farmers that grew biotech crops in 2017 are risk-averse, small, resource-poor farmers in developing countries.

In the last 22 years, millions of farmers in ~24 countries worldwide have made independent decisions to plant biotech crops.
Biotech/GM crops contribute to global food security, sustainability, and climate change

From 1996 to 2016, economic gains of US$186.1 billion at the farm level were generated globally by biotech crops, due to reduced production costs and substantial yield gains.

Biotech crops have reduced the amount of pesticides used by 670 million kilograms. In 2016 alone, fewer insecticide sprays reduced CO₂ emissions by 27.1 billion kilograms, equivalent to taking 16.7 million cars off the road for a year.
Biotech/GM crops helped alleviate poverty by helping 17 million small farmers and their families, totaling >65 million people.
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