

ISAAA Report Finds that Global Adoption of Biotech crops Continues to Rise

February 23, 2010

SUMMARY

Farmers around the world continue to enthusiastically embrace genetically engineered (GE) crops according to the ISAAA report for 2009.

After a dozen years of commercialization, the global adoption of biotech crops continues to rise with new countries realizing the benefits, according to a report released today by the International Service for the Acquisition of Agri-biotech Applications (ISAAA). In 2009, biotech crop area **grew seven percent or by 9 million hectares (22.23 million acres) to reach 134 million hectares (330 million acres).**

A record 14 million farmers in 25 countries are using agricultural biotechnology. Ninety percent (13 million) of these are resource-poor farmers in developing countries.

BACKGROUND

The International Service for the Acquisition of Agri-Biotech Applications (ISAAA) report provides detailed biotech crop adoption statistics around the world. ISAAA has been tracking global biotech crop adoption trends since the technology's inception in 1996. The report is prepared and presented by Dr. Clive James, Chair of the ISAAA Board of Directors.

ISAAA is a not-for-profit organization whose mission is to share knowledge on crop biotechnology so that the global community is more informed about the attributes and potential of the new technologies.

KEY FINDINGS OF THE REPORT

- In 2009, global biotech acreage grew to 330 million acres (134 million hectares) versus 309 million acres (125 million hectares) in 2008.
 - This is a 22 million acre (9 million hectare) increase, an increase of seven percent.
- In 2009, biotech crops were grown in 25 countries; This number remained the same from 2008 and represents:
 - The addition of Costa Rica. Costa Rica is growing biotech crops for the first time, exclusively for the seed export market.
 - Germany discontinued cultivation of genetically engineered (Bt) maize at the end of the 2008 growing season.
 - In November 2009, China issued biosafety certificates for biotech varieties of rice and corn. As rice is the most important food crop globally, feeding half of humanity, and maize is the most important feed crop in the world, these biosafety clearances can have enormous implications for future biotech crop adoption in China, Asia, and the world.

- Africa is considered the “final frontier” for biotech crops as it has perhaps the greatest need and most to gain.
- More than 2.4 billion acres (1 billion hectares) of biotech crops have been planted globally since 1996.
 - Accumulated acreage of biotech crops (for the period 1996 to 2009) exceeded 1 billion hectares in 2009 for the first time.
- In 2009, biotech crops were grown by 14 million farmers, up from 13.3 million in 2008.
 - 90 percent (13 million) are resource-poor farmers in developing countries.

Table 1. Global Area of Biotech Crops in 2009: by Country (Million Hectares)

Rank	Country	Area (million hectares)	Biotech Crops
1*	USA*	64	Soybean, maize, cotton, canola, squash, papaya, alfalfa, sugarbeet
2*	Brazil*	21.4	Soybean, maize, cotton
3*	Argentina*	21.3	Soybean, maize, cotton
4*	India*	8.4	Cotton
5*	Canada*	8.2	Canola, maize, soybean, sugarbeet
6*	China*	3.7	Cotton, tomato, poplar, papaya, sweet pepper
7*	Paraguay*	2.2	Soybean
8*	South Africa*	2.1	Maize, soybean, cotton
9*	Uruguay*	0.8	Soybean, maize
10*	Bolivia*	0.8	Soybean
11*	Philippines*	0.5	Maize
12*	Australia*	0.2	Cotton, canola
13*	Burkina Faso	0.1	Cotton
14*	Spain*	0.1	Maize
15*	Mexico*	0.1	Cotton, soybean
16	Chile	<0.1	Maize, soybean, canola
17	Colombia	<0.1	Cotton
18	Honduras	<0.1	Maize
19	Czech Republic	<0.1	Maize
20	Portugal	<0.1	Maize
21	Romania	<0.1	Maize
22	Poland	<0.1	Maize
23	Costa Rica	<0.1	Cotton, Soybean
24	Egypt	<0.1	Maize
25	Slovakia	<0.1	Maize
* 15 biotech mega-countries growing 50,000 hectares, or more, of biotech crops			
Source: Clive James, 2009.			

- ISAAA expects the number of biotech farmers globally to reach 20 million or more in 40 countries on 200 million hectares in just more than five short years in 2015. ISAAA predicts future adoption increases will also come from:
 - significant expansion of biotech soybean, maize, and cotton in Brazil.
 - commercialization of Bt cotton in 2010 by Pakistan, the fourth-largest cotton growing country.
 - expansion of Bt cotton in Burkina Faso with potential adoption of biotech cotton and/or maize in other African countries including Malawi, Kenya, Uganda, and Mali.
 - adoption of golden rice by the Philippines in 2012 and Bangladesh and India before 2015.

TALKING POINTS

- The ISAAA report further illustrates what we have known all along, that biotechnology is a key component contributing to sustainable agriculture.
- More and more farmers around the world are turning to biotechnology so they can grow plants that yield more per acre and reduce production costs while being resistant to disease and insect pests.
- In the United States, more than 158 million acres of biotech crops were planted in 2009, up from 154 million acres in 2008. The primary biotech crops grown in the United States are corn, cotton, canola and soybeans, but also squash, papaya, alfalfa, and sugarbeet.
- At a time when the world is looking for science-based solutions to help feed a growing population, agricultural biotechnology is able to deliver heartier crops that produce more food, often in areas with less-than-perfect growing conditions.
- Ag biotechnology also has environmental benefits because biotech crop varieties require less cultivation and fewer pesticide applications, thereby saving fuel and reducing carbon dioxide (CO₂) emissions into the air. This also improves soil health and water retention.
- The future of agricultural biotechnology is encouraging and promising as adoption rates continue to rise, especially as we learn about the promises of next generation crops.
 - In the future, biotech crops will have resistance to additional diseases and increased tolerance for environmental stresses like drought and flooding.
 - New developments such as nitrogen efficiency will further increase the yield potential of the world's crop acreage, despite increasing pressure on natural resources.
 - We'll also see increased demand for biotech foods that have been nutritionally enhanced or engineered to help combat human disease.
 - Agricultural biotechnology is helping to meet tomorrow's challenges today in agriculture, food and energy production.
- The findings of this report prove that the United States and countries around the world are turning to science and technology to meet today's challenges in agriculture, and food and energy production.

FOR MORE INFORMATION

The International Service for the Acquisition of Agri-Biotech Applications (ISAAA) report, *Global Status of Commercialized Biotech/GM Crops: 2009* and accompanying materials are posted at www.isaaa.org.