



Global Status of Commercialized Biotech/GM Crops: 2012

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Dedicated by the author to the 1 billion poor and hungry people, and their survival

TOP TEN FACTS about Biotech/GM Crops in 2012

FACT # 1. 2012 was the 17th year of successful commercialization of biotech crops. Biotech crops were first commercialized in 1996. Hectarage of biotech crops increased every single year between 1996 to 2012 with 12 years of double digit growth rates, reflecting the confidence and trust of millions of risk-averse farmers around the world, in both developing and industrial countries.

FACT # 2. Biotech crop hectares increased by an unprecedented 100-fold from 1.7 million hectares in 1996, to over 170 million hectares in 2012. This makes biotech crops the fastest adopted crop technology in recent times – the reason – they deliver benefits. In 2012, hectarage of biotech crops grew at an annual growth rate of 6%, up 10.3 million from 160 million hectares in 2011. Millions of farmers in ~30 countries worldwide, have made more than 100 million independent decisions to plant an accumulated hectarage of ~1.5 billion hectares, equivalent to 50% more than the total land mass of the US or China; this reflects the fact that biotech crops deliver sustainable and substantial, socioeconomic and environmental benefits.

FACT # 3. For the first time in 2012, developing countries planted more hectares than industrial countries. Notably, developing countries grew more, 52%, of global biotech crops in 2012 than industrial countries at 48%. In 2012, growth rate for biotech crops was at least three times as fast, and five times as large in developing countries, at 11% or 8.7 million hectares, versus 3% or 1.6 million hectares in industrial countries.

FACT # 4. Number of countries growing biotech crops. Of the 28 countries which planted biotech crops in 2012, 20 were developing and 8 were industrial countries; two new countries, Sudan (Bt cotton) and Cuba (Bt maize) planted biotech crops for the first time in 2012. Germany and Sweden could not plant the biotech potato “Amflora” because it ceased to be marketed. Stacked traits are an important feature – 13 countries planted biotech crops with two or more traits in 2012, and notably, 10 of the 13 were developing countries – 43.7 million hectares, or more than a quarter, of the 170 million hectares were stacked in 2012.

FACT # 5. Number of farmers growing biotech crops. In 2012, a record 17.3 million farmers, up 0.6 million from 2011, grew biotech crops – remarkably over 90%, or over 15 million, were small resource-poor farmers in developing countries. Farmers are the masters of risk-aversion and in 2012, a record 7.2 million small farmers in China and another 7.2 million in India, elected to plant almost 15 million hectares of Bt cotton, because of the significant benefits it offers. In 2012 over one-third of a million small farmers in the Philippines benefited from biotech maize.

FACT # 6. The top 5 countries planting biotech crops. The US continued to be the lead country with 69.5 million hectares, with an average ~ 90% adoption across all crops. Brazil was ranked second, and for the fourth consecutive year, was the engine of growth globally, increasing its hectareage of biotech crops more than any other country – an impressive record increase of 6.3 million hectares, up 21% from 2011, reaching 36.6 million hectares. Argentina retained its third place with 23.9 million hectares. Canada was fourth at 11.8 million hectares with 8.4 million hectares of canola at a record 97.5% adoption. India was fifth, growing a record 10.8 million hectares of Bt cotton with an adoption rate of 93%. In 2012, each of the top 10 countries planted more than 1 million hectares providing a broad foundation for future growth

FACT # 7. Status of biotech crops in Africa. The continent continued to make progress with South Africa increasing its biotech area by a record 0.6 million hectares to reach 2.9 million hectares; Sudan joined South Africa, Burkina Faso and Egypt, to bring the total number of African biotech countries commercializing biotech crops to four. Five countries, Cameroon, Kenya, Malawi, Nigeria and Uganda conducted field trials of biotech crops, the penultimate step prior to approval for commercialization. The lack of appropriate, science-based and cost/time-effective regulatory systems continue to be the major constraint to adoption. Responsible, rigorous but not onerous, regulation is needed, particularly for small and poor developing countries.

FACT # 8. Status of biotech crops in the EU. Five EU countries planted a record 129,071 hectares of biotech Bt maize, up 13% from 2011. Spain led the EU with 116,307 hectares of Bt maize, up 20% from 2011 with a record 30% adoption rate in 2012.

FACT # 9. Benefits offered by biotech crops. From 1996 to 2011, biotech crops contributed to Food Security, Sustainability and the Environment/Climate Change by: increasing crop production valued at US\$98.2 billion; providing a better environment, by saving 473 million kg a.i. of pesticides; in 2011 alone reducing CO2 emissions by 23.1 billion kg, equivalent to taking 10.2 million cars off the road for one year; conserving biodiversity by saving 108.7 million hectares of land; and helped alleviate poverty for >15.0 million small farmers and their families totaling >50 million people, who are some of the poorest people in the world. Biotech crops are essential but are not a panacea and adherence to good farming practices such as rotations and resistance management, are a must for biotech crops as they are for conventional crops.

FACT # 10. Future Prospects. Cautiously optimistic with more modest annual gains likely due to the already high rates of adoption in the principal biotech crops in mature markets in both developing and industrial countries.

ISAAA is a not-for-profit organization, sponsored by public and private sector organizations. All biotech crops hectare estimates reported in all ISAAA publications are only counted once, irrespective of how many traits are incorporated in the crops. Detailed information is provided in ISAAA Brief 44 “Global Status of Commercialized Biotech/GM Crops: 2012”, authored by Clive James. For further information, please visit <http://www.isaaa.org> or contact ISAAA SEAsiaCenter at +63 49 536 7216, or email to info@isaaa.org.