



Top 10 Facts About Biotech/GM Crops in Africa 2013



2013 Marked the 16th consecutive year of commercial cultivation of biotech crops in Africa

The first country to commercialize biotech crops in the continent was South Africa, having given regulatory approval in 1997. Biotech crops have since been commercialized in three other countries - Egypt (Maize in 2008), Burkina Faso (cotton in 2008) and Sudan (cotton in 2012). Following unsubstantiated safety concerns in Egypt, the planting of biotech maize (Ajeeb-YG) was put on hold in 2012, pending further review by the Government.



Total biotech crop hectarage in Africa increased by 6%



There was a 6 % increase in total biotech crop hectarage in Africa. This was principally due to Burkina Faso and Sudan increasing their Bt cotton hectarage by 51% and 207% respectively. The total area under biotech crops in 2013 in Africa was 3,435,759 hectares (South Africa-2, 900,000, Burkina Faso-474,229 and Sudan-61,530 hectares) whereas the total in the three countries in 2012 was 3,233,781 hectares.

Seven African countries conducted field trials on biotech crops

Seven countries: Cameroon, Egypt, Ghana, Kenya, Malawi, Nigeria and Uganda conducted confined field trials with 10 biotech crops. Notably, the research is focusing on important food security crops in the continent. These include: banana, cassava, potato, cowpea, maize, rice, sorghum, wheat and sweet potatoes.



Distribution of biotech crops' traits in Africa broadened



There were about 37 on-going biotech crop trials in the continent focusing on traits of high relevance to challenges facing African agriculture. Twenty-three are focusing on tropical pests and disease resistance, 5 on nutritional enhancement, 4 on drought tolerance, and, 3 on nitrogen use efficiency and salt tolerance. There are also two trials focusing on flower color in *Gypsophilla* flowers and modified oils in Soybean respectively.

Farmers' satisfaction with biotech crops growing

Farmers increasingly voiced their satisfaction with the benefits accruing from growing biotech crops. Mr. Sanou, a farmer from Burkina Faso reported having realized additional yield of 3 tonnes from planting Bt cotton compared to 2 tonnes with conventional cotton in the same area. In Sudan, Bt Cotton saved 37% of the direct cost of cotton production for Sudanese cotton farmers.. They were happy that the bolls in the lower third of the plant, which are normally lost in conventional varieties due to bollworm infestation, added to the cotton yield and quality, as these are the bolls with the highest quality.



Economic benefits by African countries continued to rise



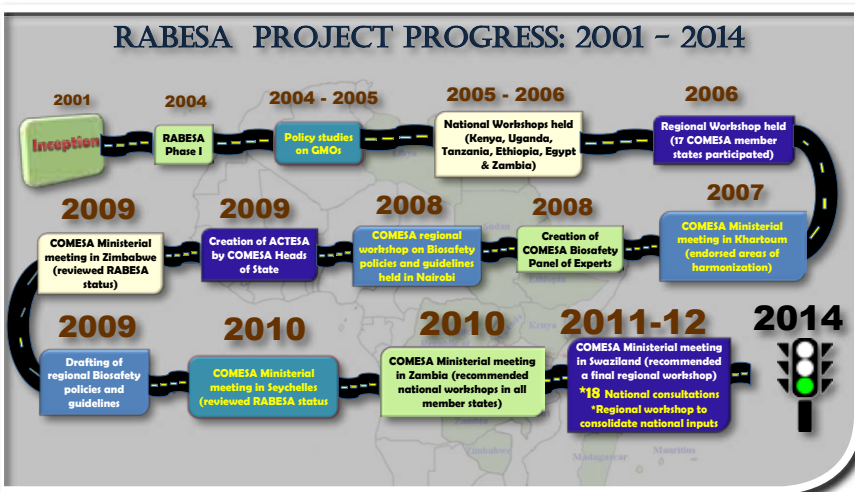
The economic benefits accrued by farmers growing biotech crops in Africa continued to rise. It is estimated that the cumulative economic gains from biotech crops in South Africa for the period 1998 to 2012 was US\$ 1.15 billion and US\$ 218.5 million for 2012 alone. Economic gains in Burkina Faso from Bt cotton were estimated at US\$ 90.2 million in 2012 and US\$ 187 million for the period 2008 to 2012. In the first year of commercialization (2012) in Sudan, Bt cotton saved 37% of the direct costs of cotton production.

African countries contributed to the environmental benefits accruing from adopting biotech crops globally

By adopting biotech crops, African countries contributed to the overall global environmental benefits realized between 1996 to 2012 of biotech crops adoption. Biotech crops contributed to providing a better environment, by saving 497 million kg active ingredients of pesticides; reducing carbon dioxide (CO₂) emissions by 26.7 billion kg (equivalent to taking 11.8 million cars off the road for one year in 2012 alone); and conserving biodiversity by saving 123 million hectares of land in the period 1996-2012.



Regional biotechnology policy initiatives gathered pace in the continent



Progress was made in regional initiatives on harmonization of policies and regulatory frameworks within the continent. A major milestone was approval and endorsement of the COMESA Policy on Biotechnology and Biosafety. The regional policy provides a mechanism for scientific regional risk assessment of GMOs intended for commercial planting, trade and access to emergency food aid for COMESA Member States. It will also allow for cost efficiency in the sharing of knowledge, expertise and resources on biotechnology and biosafety in the continent.

Several African countries reviewed their biosafety frameworks to support research and commercialization of biotech crops

Increasingly, more African countries are revising their biosafety regulations to ensure they are functional, science-based and cost/time-effective. As of 2013, 19 countries had enacted biosafety frameworks and 5 were working towards a review. They are: Burkina Faso, Ethiopia, Mozambique, Tanzania and Togo.



More countries are geared to commercializing biotech crops



It is anticipated that several of the countries currently field-testing biotech crops will graduate to commercialization in the next 5 years. The early predominant products that will likely feature are the Water Efficient Maize for Africa (WEMA) - drought tolerant maize scheduled for a launch in 2017, the well-tested biotech cotton, and hopefully, one of the several food security crops such as the insect resistant cowpea and biofortified banana. The African Development Bank has acknowledged the need to increase resources for technologies to boost food security. This, coupled with political goodwill and success in the lead countries continue to provide cautious optimism for increased adoption of biotech crops in Africa.



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According to FAO statistics of 2012, while the number of undernourished people decreased by nearly 30 % in Asia and the Pacific, the number of hungry grew in Africa from 175 million to 239 million: nearly one in four people is hungry. Modern biotechnological tools especially genetic modification (GM) offer promise and potential for resolving some of the major agricultural constraints in African smallholder farms.



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