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Transgenic crops catch BIO fancy

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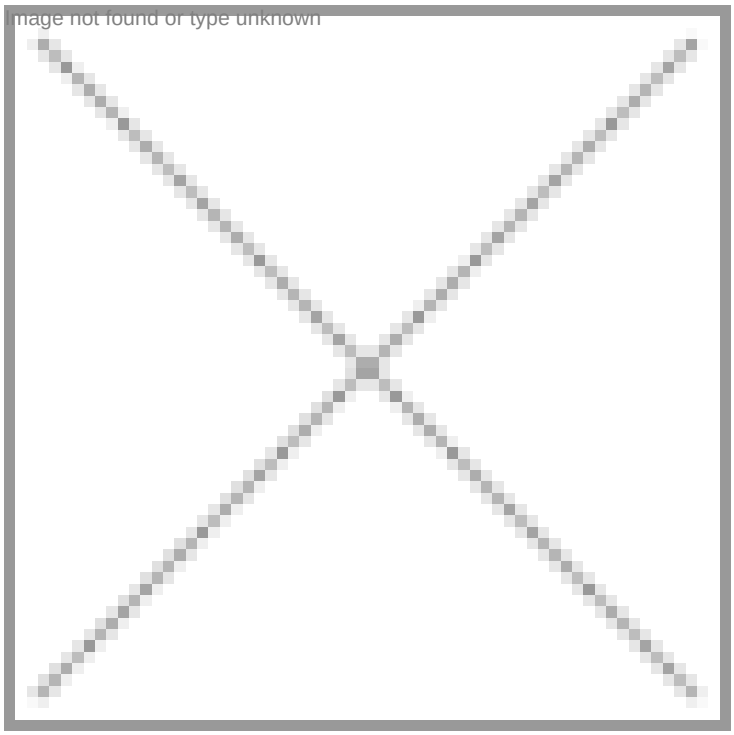


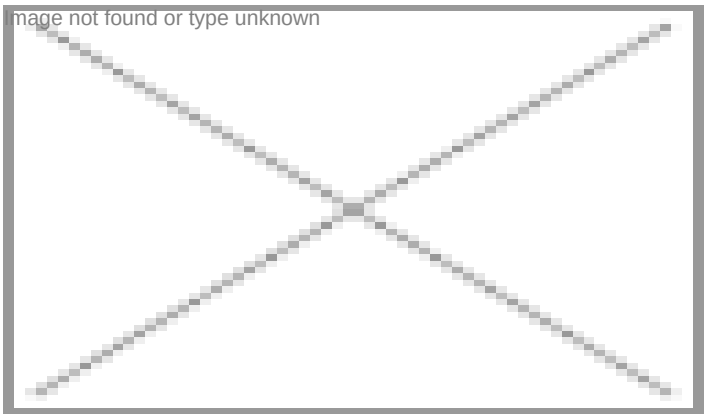
The annual biotechnology convention, BIO, is usually dominated by the biopharma sector. It is the vaccines and therapeutics that receive global attention when the biotechnology community congregates annually in the US, for the past 12 years. The 13th edition of BIO in Philadelphia made an attempt to focus on genetically-modified (GM) crops and it was a huge success.

The world's first GM crop was introduced 10 years ago. During a lively discussion, it was pointed out that from China to Brazil and from the US to South Africa, farmers around the world who choose biotech crops do so because they perform better than the alternatives.

Some highlights of 10 years of Green Biotechnology, compiled by the US Grains Council:

- In China, farmers producing biotech cotton have been able to eliminate two-thirds of their insecticide use.
- Farmers in the US and Argentina give credit to green biotech because it has made it easier for them to implement soil-friendly cultivation practices that reduce erosion in their fields and help protect precious top soil
- Biotech cotton has increased yields and net income for small farmers in many countries including South Africa, India and China.

- In 2004, farmers increased biotech crop production 200 percent in Uruguay, 66 percent in Brazil and 32 percent in China.
- Globally, biotech crops represent 56 percent of all soybeans, 21 percent of cotton, 19 percent of canola and 14 percent of maize.
- More than 60 countries are now doing research on 50-plus different crops that are important to their farmers, their cultures, their economies and their security.



" In the biotech century (21st Century), using genetically enhanced crops, we will feed an increasingly hungry world," noted BIO President Jim Greenwood in his opening remarks. " In the biotech century we will harness enzymes to convert plant waste to fuel and biodegradable plastics, reducing our dependence on oil."

Biotech agriculture is spreading worldwide quickly. While North America is the epicenter of plant biotech research, more than half the 63 countries engaged in biotech research, development and production are developing countries.

South Africa is a noted example. It has already approved biotech varieties of corn, cotton and soybeans for planting and now ranks sixth in the world in terms of the number of acres planted with biotech varieties.

According to an NGO, Africa Bio, in Africa only South Africa is growing GM crops commercially now, but Zimbabwe, Egypt, Kenya and Burkina Faso have started with field trials.

" I have grown Bt maize, seen the benefits and our community and chicken have consumed it without any ill effects," said Sabina Khoza, secretary-general, National African Farmers Union, South Africa.

Debunking fears that farmers may become captive to foreign companies, Africa Bio pointed out that new protection systems are being developed to protect farmers' historic rights in conservation and use of varieties as well as the indigenous knowledge associated with it.

In South Africa, plant varieties cannot be patented. Only the specific gene insertion is patentable. In most cases, the foreign companies own the patented gene, but other breeders, also South Africans, own the variety. IT is government policy to develop local technologies.

There were many interesting sessions on this topic. There was a specific session to discuss the impact of GM crops in developing countries. And all the three presentations were from India: KK Narayanan of Metahelix, Bangalore, V Moreno of Avesthagen, Bangalore and Alok Kumar of Monsanto India.

" Over 1.3 million acres (0.5 million hectares) of Bt cotton has been planted in India within three years of its commercial introduction. No other agriculture technology has seen such quick and massive adaptation in human history," informed Metahelix's KK Narayanan. He made a strong plea to the global community to look at India seriously as the country has to adapt the latest technologies to push up the productivity of the largest cultivable area in the world and produce an extra 40 million tons of foodgrains from declining land area to feed the citizens.

Farmer Edwin Paraluman in Indonesia is another farmer who has benefited from Bt maize. After switching to the GM variety, he was offered 8 pesos per kg of corn, well above the going rate of 7.4 pesos per kg. Also, the biotech corn had double the yields-2.8 tons per acre instead of 1.4 tons per acre - he had been averaging with conventional hybrid corn.

"You know for me, it's really amazing," said Paraluman in a study by the Council for Biotechnology Information. This is for the first time in my life that I can actually get ahead and provide a better life for my family."