

It's about time we gave science its fair due

Shivendra Bajaj

Over the past 150 years, researchers have built on the earliest farmers' knowledge to better understand the importance of plant genetics to develop stronger crops. By identifying crops with desired traits such as better nutritional characteristics or greater tolerance to drought and using selective breeding, they began developing improved plants that were more resilient and capable of producing greater yields.

In the last few decades, research conducted in the laboratory has also assisted plant breeding greatly, where agri-scientists work to identify specific genes responsible for traits that make crops tolerant to a specific category of pests, herbicides, tolerant to drought, flooding, etc. Once the genes carrying the beneficial traits have been identi-

fied, they are isolated and then inserted into the plant. The new plant undergoes years of testing and regulatory approvals before being introduced into farms. This is the world of modern crop biotechnology, the outcome of which is commonly referred to as genetically modified (GM) crops, biotech or transgenic crops.

For the past 17 years, millions of farmers in approximately 30 countries have grown 1.7 billion hectares of GM crops. These have enabled farmers improve incomes and help meet rising food demand as populations grow. Bt technology has helped India to treble its cotton output and has generated economic benefits for farmers valued at \$5.1 billion.

But should we leave it at one product? The government, the industry and agri-research institutions don't think so. Indian scientists have been working on several crops such as

brinjal, maize, rice, mustard and cotton.

The scourge of climate change is already affecting agriculture as we know it and the farmer can be fortified by agri-biotechnology. New products of GM crops can tackle a broader range of pests, prolong the life of products and manage drought or water-stressed conditions.

Sceptics often question the safety of GM crops but it is important to note that 20 years of consumption of food derived from the products of GM crops across the world has not led to a single illness anywhere.

India like most other countries follows some of the most stringent regulatory processes before licensing GM crops for cultivation. It's about time we gave science its fair due.

*Shivendra Bajaj is executive director, ABLE-AG
The views expressed are personal*