

'To ensure Bt cotton tech is agile, responds to smallholders' concerns'

India's cotton output has seen a sharp spike since the use of Bollgard-I, the first GM crop in 2002, followed by Bollgard II, a pest-resistant variety, in 2006. However, after Bollgard-II, the Genetic Engineering Appraisal Committee (GEAC) hasn't approved any new GM cotton varieties. Bayer-Mahyco's application concerning Bollgard II roundup ready flex (RRF), has been under the GEAC's consideration for a while. D Narain, president, South Asia and global head of smallholder-farming, Bayer, spoke to Sandip Das, on the uses of bio-technology in boosting farmers' income.

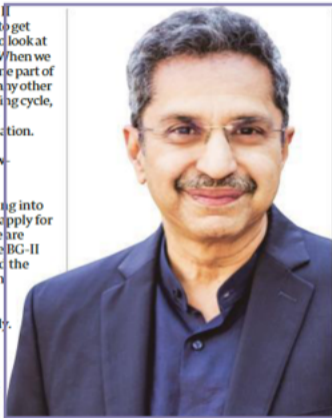
How do you assess the use of biotechnology in agriculture evolving in the country?

The GM mustard DMH-11, approved last year by the GEAC, is a home-grown technology. We are clearly going to see bio-technology emerge in the country and play a critical tool to enhance small holders' farmers. Specifically for cotton, I would say that while the biotech piece is stalling (as the company's herbicide-

tolerant cotton variety Bollgard II roundup ready BG-II RRF is yet to get regulatory approval), you have to look at it as an integrated crop system. When we brought Bollgard II, it's solved one part of the problem, but there are so many other issues in the whole cotton planting cycle, that need to be solved with crop chemistry along with mechanisation.

What are the plans on new-generation farming technologies?

For every trait we bring into the country, we need to apply for regulation. Right now we are very focused on getting the BG-II RRF approved by the GEAC, and application was resubmitted in December 2021. This variety will provide an opportunity to bring all the traits subsequently. I think the textile, seed and the whole crop input industries need to come together with the government to bring India's cotton mission to life again.



Necessary approvals by the govt gave us the confidence to come back and resubmit our application for BG-II RRF. You can't be sitting with a 25-year old technology and not have new ones, which other farmers around the world have access to, especially smallholders

What has been the most notable global developments in agri biotech in recent years?

If you look at the eastern belt of Asia, after the Philippines, Indonesia, Vietnam, now Bangladesh is talking about use of bio-technology. Bangladesh has already approved commercial cultivation of BT brinjal. Of course, bio-technology is starting to move very rapidly. The same thing is happening in Africa, especially if you look at cotton.

I believe the Indian government has a very strong intent (to encourage use of biotech to further agri output and farmers' incomes), given the way they are

going ahead with gene-editing guidelines (standard operating procedures were issued last year for R&D of certain types of genome edited plants, which is expected to accelerate genetic improvement of crops in the country).

Elaborate on the tie up with the government on various innovations to boost farmers' income?

We are one of the companies collaborating with the government for deregulation and usage of drones for agricultural use. Within 18 months, the government provided all the necessary approvals, giving us the confidence to come back and resubmit our application for BG-II RRF. You can't be sitting with a 25-year old technology and not have the new ones, which other farmers around the world have access to, especially smallholders.

What are the other projects Bayer is taking up?

Launched in 2018, the 'Better Life Farming' alliance is a long-term tie-up between Bayer, International Finance

Corporation, Netafim, Yara, DeHaat, Agri Bazaar and BigBasket. 'Better Life Farming' centres provide knowledge transfer on the latest technologies in seeds, crop protection, crop nutrition, drip irrigation, soil management, financial literacy, etc. The farmers can increase their crop yields, crop quality and achieve higher farm incomes, thus creating a better life for their families. In India, for example, we touched 20 million farmers and are growing steadily. We have identified the geographies especially in central and eastern parts of the country which are poorly-served. They also deliver services such as market linkages, access to inputs and crop advisory.

You have launched a food-chain programme...

Under the programme launched in 2007, we have to implement the best agriculture practices, which create value to the growers as well as connecting these with the needs of the consumers. We have partnered with various companies such as PepsiCo, Nestle, Reliance Fresh, ITC, Mother Dairy, etc.