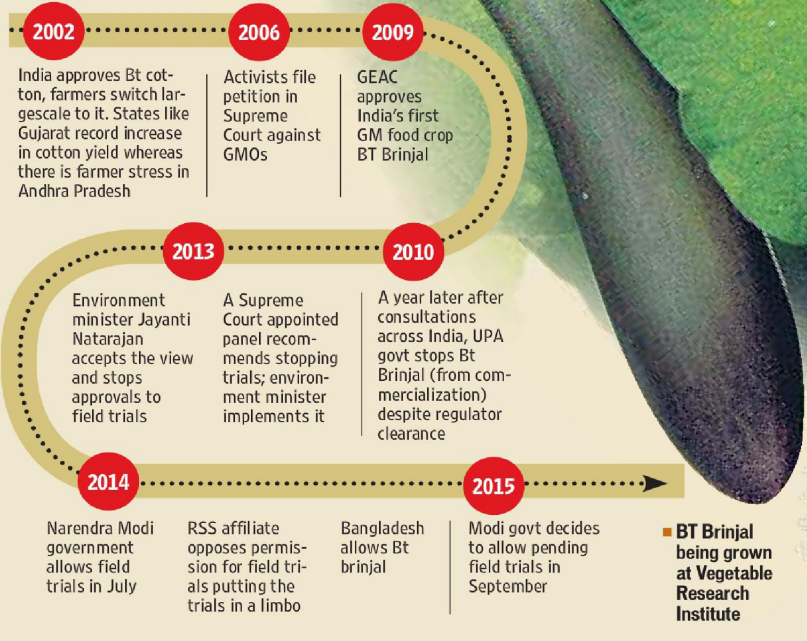


GM CROP CODE

Genetically Modified (GM) crops were first approved in India in 2002. Over the years, they have been introduced for a number of varieties



BIGGEST QUESTIONS BEHIND GM CROPS

What is a GM crop?

Genetically modified plants are created by the process of genetic engineering that allows scientists to move genetic material from one organism to another with the aim of changing their characteristics. Actual transfer of genes into selected organism takes place in a laboratory and are then put on field trials, before being grown commercially.



What's the difference between GM and traditional crossbreeding of plants and animals?

In GM, a specific piece of DNA is taken out and transferred directly into another organism and are not limited to species boundaries. In traditional breeding, mating is done sexually and are limited to same species and changes are not phenomenal.

How do scientists take genes from one species and then put it in another?

In plant GM, the most commonly used method involves using pathogens called agro bacteria, naturally occurring organism that transfers DNA into the chromosome of a plant and cause a tumour. Scientists remove the gene that causes the tumour and replace it with the genetic material they want to transfer.

When we eat GM food, are we eating modified genes?

It is said that humans consume between 0.1 and 1 gram of DNA

per day. Eating DNA from GM food is just the same as eating DNA from non-GM food.

What are the various applications of GM?

The foremost is to develop plants that are resistant to diseases, pests, and stress. Secondly, keeping fruits and vegetables fresh for longer periods of time and producing plants that possess healthy fats and oils. Thirdly, to produce plants that have increased nutritive value and developing a whole range of higher value added feed.

What crops are already genetically modified?

In India, only BT Cotton is commercially exploited GM crop. In West, Soyabean, maize, cotton, potato, squash, papaya and canola are some of the GM crops. For field trials in India, cabbage, cauliflower, chickpea has been allowed.

DO GM CROPS INVOLVE CHEMICALS?

Chemicals are used during the genetic modification of organism in the laboratory. Except for the introduced DNA (genes) and proteins, the actual chemicals used in the genetic modification are not present in the resultant new plant variety.