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GM MUSTARD WILL BE READY FOR CULTIVATION IN 3 CROP SEASONS: IARI DIRECTOR

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Field test:With the GEAC approval, the ICAR will now test the hybrid for its yield before commercial cultivation.ReutersDANISH ISMAIL

Welcoming the decision of the Genetic Engineering Appraisal Committee (GEAC) to provide environmental clearance for genetically modified mustard, Ashok Kumar Singh, director, Indian Agriculture Research Institute (IARI), said it will lead to finding a science-based solution for a major challenge — the import of edible oil. Dr. Singh said the clearance would also allow the development of more high-yielding hybrids in the sector.

Talking to *The Hindu* , Dr. Singh said the environmental release of GM mustard would provide an opportunity for mustard breeders to develop diverse and high-yielding hybrids. He added that there was no need to go for the clearance of the Environment Ministry as the hybrid was environmentally released by the GEAC. “In BT cotton too, a similar process was followed. Now the responsibility is on the Indian Council of Agriculture Research (ICAR) for testing the hybrid. Now, the hybrid can be commercially cultivated after producing large quantity of its seeds. In this season, as there are not much seeds available, the available male line and female line of the hybrid have to be multiplied. In the second season, we have to go for large quantity of hybrid seed production by crossing female with male. In the third season, it will be available for commercial cultivation,” Dr. Singh said.

The ICAR has an established system to coordinate research projects, known as the All India Coordinated Research Project, in which scientists test the hybrid and varieties developed by different institutions. “Now, the GEAC has given environmental clearance for Dhara Mustard Hybrid (DMH -11). Therefore, this hybrid can now be tested in the all-India coordinated trial of AICRP for its yield advantage. If it is found for higher yielding, then it will be released for commercial cultivation,” Dr. Singh said explaining the next process.

The most important aspect of the technology, Dr. Singh said, was that it had used barnase and bar genes system for creating diverse parent and the chances of yield enhancement was more. The Environment Ministry had earlier sought studies on the impact of the genes on soil microbes. “This data was there in the application and the GEAC accepted the data,” Dr. Singh said.

Regarding the effect of GM mustard on honey bees and other pollinators, Dr. Singh said,“Barnase and bar genes are protein and honey is basically sugar without any protein content. So the question of honey being affected by this does not arise. These genes are safe.”

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