

CURRENT AFFAIRS

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TOPIC: AGRICULTURE

GM mustard will be ready for cultivation in 3 crop seasons: IARI director

Ashok Kumar Singh says the environmental nod will lead to finding a science-based solution to the challenge of importing edible oils, and allow the development of more high-yielding hybrids

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NEW DELHI

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



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

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 -II). 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.”

Genetic Engineering Appraisal Committee (GEAC)

- ✓The GEAC is India's apex biotechnology regulatory body.
- ✓The Genetic Engineering Appraisal Committee (GEAC) is a statutory body constituted under the 'Rules for the Manufacture, Use /Import /Export and Storage of Hazardous Microorganisms/Genetically Engineering Organisms or Cells, 1989' notified under the Environment (Protection) Act, 1986.
- ✓It was formed as the Genetic Engineering Approval Committee and was renamed to its current name in 2010.
- ✓It functions under the Ministry of Environment, Forests & Climate Change.
- ✓The body regulates the use, manufacture, storage, import and export of hazardous microorganisms or genetically-engineered organisms and cells in India.

TOPIC: AGRICULTURE

'Manjal Maanagaram' is the second largest turmeric market in India

Erode is the second largest turmeric market in India after Nizamabad in Telangana; it attracts consumers, traders and exporters from across the country, who vie for the best spice available; for farmers too, the markets are a boon as they get the best price for their produce

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Think of turmeric, and the first thing that would come to the mind in this part of the country is the bright yellow coloured Erode Manjal (turmeric). Erode is the second largest turmeric market in India, next to Nizamabad in Telangana. The city is nicknamed 'Manjal Maanagaram' (turmeric city).

Turmeric is one of the most important spices with medicinal properties. *The Atharvaveda* mentions it as a cure for jaundice. The commodity was traded even during the Chera, Chola and Pandya eras.

Erode, a taluk in Coimbatore district until 1979, finds a mention in the Gazetteer of South India (1901-1906). It says turmeric was one of the chief 'exports' from Coimbatore to the neighbouring districts. Also, in Posselt's Textile Journal (February 1917), it was mentioned that turmeric was widely cultivated in Erode in the Madras Presidency.

There are four turmeric markets in Erode district – Agricultural Producers Cooperative Marketing Society Limited in Gobichettipalayam (1928); the Regulated Market in Erode (established in 1954); Erode (1960); and Perundurai (1962).

The Regulated Market in Erode functions in the Turmeric Market Complex owned by Erode Turmeric Merchants and Godown Owners' Association. It is one of the busiest markets in the country.

Unorganised trading
"During the 1950s, trading was unorganised and was carried out from a small place on Park Road in the town. In 1954, a turmeric association was started, and traders used to visit each of the 10 to 20 shops for auctioning," says V.K. Rajamanickam,



Market watch: Farmers put up their samples by 9 a.m. at the auctioning centre in the Turmeric Market Complex. M. GOWARTHAN

former secretary of the association and now president of the Federation of All Trade and Industry Associations of Erode (FATIA). Later, because of lack of space and traffic congestion, the association moved to a 52-acre campus at Semmampalayam on Nastyanur Road that has godowns.

Members encouraged farmers in the State and in south Karnataka to cultivate turmeric and helped to improve the arrival at the market. "Members and commission agents gave financial support to farmers for cultivating turmeric and sinking bore-wells, besides for marriages in their families," says M. Sathyamurthy, secretary of the association.

During the season from February to

June, 8,000 bags (80 kg each) of turmeric arrive at the market, while about 3,000 bags come in during the off-season, he says. "Turmeric fetched an all-time high price of ₹17,000 a quintal in 2010," he recalls, "and the current rate is ₹5,500-₹7,000 a quintal." The association was the first to move to computerised auctioning.

Initially, turmeric was cultivated only in the Kallingarayan ayacut areas covering less than 8,000 acres. After the Lower Bhavani Project Canal was commissioned, the area under cultivation increased to over 20,000 acres in the district. In 2005-06, turmeric was grown on 21,216 acres (with a yield of 61,813 metric tonnes). The area increased to 35,333 acres in

2010-11 (with a production of 92,564 metric tonnes). It dipped to 10,081 acres in 2021-22 (25,400 metric tonnes).

Farmers place their samples by 9 a.m. on the tables at the auctioning centre in the Turmeric Market Complex. Buyers break the roots to test the colour and freshness of the turmeric and quote the price in the app. Traders from across the country bid online.

At 11 a.m. every day, the highest bidder for each lot is announced. If the price is right, farmers sell their produce. "There is no compulsion on a farmer to close the deal, if he feels the price is not the best," Mr. Sathyamurthy explains.

"The market is always crowded, and we compete to buy the best turmeric that is available," says T. Nikil, an exporter. A minimum of 100 samples is available every day to choose from. Farmers from various districts, and even from Karnataka, sell their produce at the Erode markets as they get the best price. Eswarappa from Mandya district in Karnataka says sales are transparent and a transaction is done in less than three hours. "We get the best price regularly and we always prefer the Erode markets."

The turmeric markets in Erode not only boost the local economy but also provide jobs to thousands of workers like loaders and vehicle operators. "Throughout the year, we get jobs," says P. Murugan, a loader.

GI tag
India is the largest producer, consumer and exporter of turmeric and Erode accounts for over 40% of the total sales in the country. The Erode turmeric obtained the Geographical Indication (GI) tag from the Geographical Indication Registry in 2019 and accounts for 70%-75% of the turmeric grown in Erode and Coimbatore districts.

At the fourth edition of PonManjal-CII turmeric conclave 2022 held recently, Collector H. Krishnanunni said the economy of Erode district could get a boost if value addition from turmeric was done properly by all stakeholders. He said the administration would continue its efforts at sustaining the leadership of the district in turmeric production and value addition. A turmeric export centre will be established in the district shortly. The State government has established a turmeric research station at Bhavanisagar to improve the varieties with a high curcumin content.

But a significant drop in the area under cultivation; lowering of the quality with the use of pesticides and chemicals for storage; the high cost of labour; and a long period of storage in anticipation of a higher price can hurt the market in the long run.

Turmeric

- ✓ Turmeric (*Curcuma longa*) is used as a condiment, dye, drug and cosmetic in addition to its use in religious ceremonies.
- ✓ India is a leading producer and exporter of turmeric in the world.
- ✓ The top five turmeric-producing states of India in 2020–21 are Telangana, Maharashtra, Karnataka, Tamil Nadu and Andhra Pradesh.

Climate and Soil

- ✓ Turmeric can be grown in diverse tropical conditions from sea level to 1500 m above sea level.
- ✓ It requires a temperature range of 20–35 C with an annual rainfall of 1500 mm or more, under rainfed or irrigated conditions.

TOPIC: INDEPENDENT BODIES

Centre mulls
removal of
TRAI-related
provisions
from Bill

Telecom Regulatory Authority of India (TRAI)

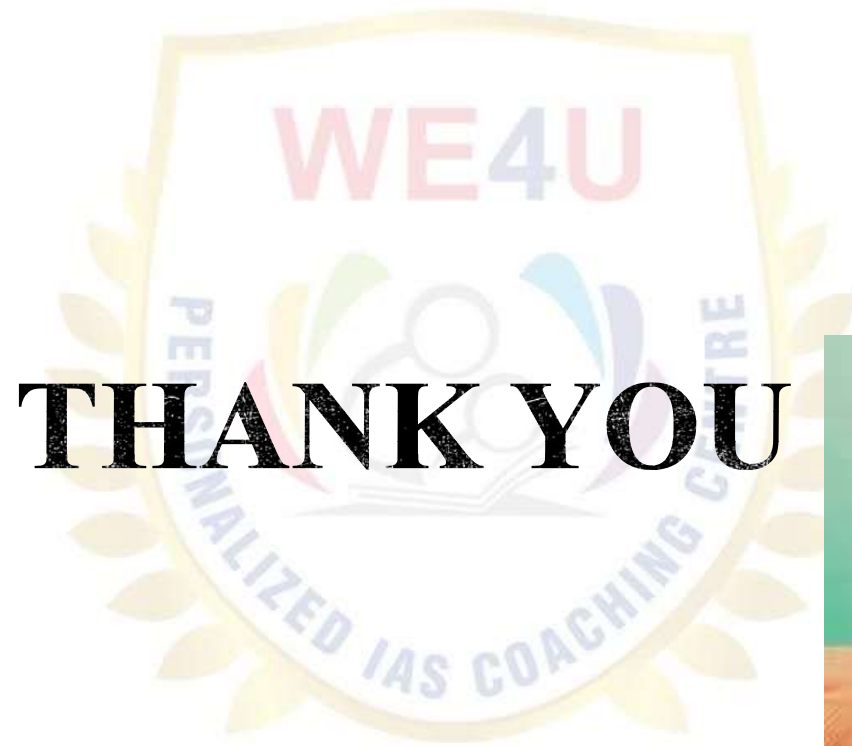
- ✓ The Telecom Regulatory Authority of India (TRAI) was established on 20th February, 1997 by the Telecom Regulatory Authority of India Act, 1997.

Objectives of TRAI:

- ✓ TRAI's mission is to create and nurture conditions for growth of telecommunications in the country.

- ✓ TRAI regulates telecom services including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.
- ✓ It also aims to provide a fair and transparent policy environment which promotes a level playing field and facilitates fair competition.





THANK YOU

