

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION No. 207
TO BE ANSWERED ON 08.12.2022

Requirement of Genetically Modified Mustard

207. SHRI BINOY VISWAM

Will the Minister of *ENVIRONMENT, FOREST AND CLIMATE CHANGE* be pleased to state:

- (a) the requirement for Genetically Modified (GM) Mustard when India is self-sufficient in the production of mustard oil;
- (b) whether Government is aware of the presence of the Herbicide Tolerant (HT) trait in GM Mustard DMH-11;
- (c) whether Government is aware of the ill effects of the HT trait on Indian agricultural conditions; and
- (d) the reasons for approving the environmental release of GM Mustard without conducting studies on its impact on honey bees and other pollinators?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI ASHWINI KUMAR CHOUBEY)

- (a) to (d)** The total edible oil demand of India is 25.52 million tonnes (2018-19) with domestic availability of 10.35 million tonnes (2018-19). 15.57 million tonnes (60%) of our total edible oil demand is met through import.

Strengthening of plant breeding programs including use of new genetic technologies such as GE Technology is important for meeting emerging challenges in Indian agriculture and ensuring food security while reducing foreign dependency.

The *bar* gene in Mustard hybrid DMH-11 is expressed which encodes phosphinothricin N-acetyl transferase enzyme that confers resistant to herbicide glufosinate ammonium.

Genetically Modified (GM) Hybrid Mustard DMH11 has not been approved for Herbicide Tolerant (HT) trait but for a GM technology for hybrid seed production. The HT characteristic/trait present in the GM mustard hybrid seed is essential for eliminating fertile plants that are not transgenic in the hybrid seed production plots to maintain the purity of hybrid seed. The use of herbicide will be limited to seed production stage by the seed producing company/institute and not during the commercial cultivation of DMH-11 by the farmers. The use of herbicide will be after

obtaining label claim and approval from Central Insecticide Board & Registration Committee (CIB&RC).

The field demonstration studies with respect to the effect of GE mustard on honey bees and other pollinators, shall be conducted post-environmental release, simultaneously by the applicant, within two years under supervision of ICAR, as per ICAR guidelines and other extant rules/guidelines/regulations.

The issue of environmental release of GM Mustard is under adjudication in the Writ Petition (Civil) 115/2004 and Writ Petition(Civil) 260 of 2005 titled as Gene Campaign Vs. UoI & Ors. and Aruna Rodrigues Vs. UoI & Ors., respectively before the Hon'ble Supreme Court of India.
