

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION

RAJYA SABHA
UNSTARRED QUESTION NO-2266
ANSWERED ON- 19/12/2025

CROPS INCLUDED IN GENOME EDITING PROJECT

2266. DR. ANIL SUKHDEORAO BONDE:

SHRI BHUBANESWAR KALITA:

Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

- (a) number of crops which are included in the genome editing project being implemented by Indian Council of Agricultural Research (ICAR);
- (b) whether any other R&D institutes are also doing research on genome editing on different crops;
- (c) if so, the details thereof;
- (d) status of product development through genome editing in different crops in the country; and
- (e) details of Intellectual Property Rights, (IPR) issues in the use of genome editing technology and the manner in which Government is addressing them?

ANSWER

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE
(SHRI BHAGIRATH CHOUDHARY)

(a): Genome editing research has been initiated in Indian Council of Agricultural Research (ICAR) on 24 field crops and 17 horticultural crops.

(b) & (c): Yes. Besides ICAR, Department of Biotechnology Institutes (National Institute of Plant Genome Research, New Delhi; Biotechnology Research and Innovation Council - National Agri-Food Biomanufacturing Institute, Mohali; International Centre for Genetic Engineering and Biotechnology, New Delhi); Council of Scientific & Industrial Research (CSIR) Institutes (CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow; CSIR- Institute of Himalayan Bioresource Technology, Palampur; CSIR- National Botanical Research Institute, Lucknow) are also doing genome editing research in 10 crops.

(d): Two genome edited varieties of rice have been developed by ICAR. Biotechnology Research and Innovation Council - National Institute of Plant Genome Research, New Delhi has developed low glucosinolate genome edited line in mustard.

(e): The Intellectual Property Rights (IPR) issues are addressed as per the Freedom to Operate (FTO) provisions for inventors in using genome editing technology for research purpose.
