GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO - 4114
ANSWERED ON 12/08/2026

NON-POWER APPLICATIONS OF NUCLEAR TECHNOLOGY IN TRIPURA AND THE NORTH -EASTERN STATES

4114. SHRI BIPLAB KUMAR DEB

Will the PRIME MINISTER be pleased to state:-

(a) whether nuclear technologies developed by the Bhabha Atomic Research Centre (BARC) are being used in Tripura and other North-Eastern States in the agriculture sector for improving crop quality and for seed preservation and if so, the details thereof; and

(b) the details of Government's action plan for the expansion of radiation technology-based facilities for the food processing industries in North -Eastern India?

ANSWER

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH)

(a) Improved crop varieties developed by Bhabha Atomic Research Centre (BARC) using radiation-based mutation breeding program are being utilized in the agriculture sector across the country, including the North-Eastern States. BARC groundnut varieties, TKG 19A, TG 37A, TG 38 and TG 51 are found suitable for Northern Eastern States and are recommended for cultivation by the Indian Council of Agricultural Research (ICAR). In Assam, BARC has collaborated with Assam Agricultural University (AAU), Jorhat for field evaluation of Trombay mutant lines and radiation-based improvement of crops. The collaboration includes multi-location evaluation of Trombay lines of different crops, mutation breeding for improvement of local rice varieties, capacity building and training of scientists and students in radiation technologies for crop improvement.

(b) BARC has developed radiation-based food preservation and food processing technologies to reduce the post harvesting losses and extend shelf life of agri products. Also, radiation-based protocols have also been developed for various agricultural products like vegetables, fruits, pulses, spices etc. The technology have been transferred

to private entrepreneurs on non-exclusive basis, for commercialization and can be implemented through the licensees.

Further, Government has implemented policy measures to expand the radiation technology for food preservation at the country level. Government of India has announced incentives for setting up of multiproduct food irradiation units under 'Integrated Cold Chain & Value Addition Infrastructure' of the Pradhan Mantri Kisan Sampada Yojana (PMKSY) scheme across the nation in 2024-25. This scheme is open for application by the interested stakeholders.

*****