

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

LOK SABHA
UNSTARRED QUESTION NO. 3234
TO BE ANSWERED ON 21st MARCH, 2023

STUBBLE BURNING

3234. **SHRI SATYADEV PACHAURI:**
SHRI SHYAM SINGH YADAV:
SHRIMATI SUNITA DUGGAL:
SHRI JAGANNATH SARKAR:

Will the Minister of AGRICULTURE AND FARMERS WELFARE
कृषि और किसान कल्याण मंत्री be pleased to state:

- (a) whether the Indian Agricultural Research Institute (IARI) has developed technologies for in-situ bio-decomposition of stubble/parali;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether any in-situ agricultural waste management technologies have been put to use on farm field areas prone to stubble burning;
- (d) if so, the details of the States/UTs where it has been put to use during the last one year and if not, the reasons therefor;
- (e) whether the Government has taken any steps to increase the coverage of the areas for in-situ bio-decomposition of stubble besides adoption by farmers of the same; and
- (f) if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE
कृषि और किसान कल्याण मंत्री (SHRI NARENDRA SINGH TOMAR)

(a) and (b) ICAR- Indian Agricultural Research Institute (IARI), New Delhi has developed a microbial consortium Pusa Decomposer for *in-situ* accelerated decomposition of stubble/*parali*.

Four capsules of this product can be scaled up to 25L liquid formulation which are diluted to 500L and applied *in-situ* to 1.0 ha of combine harvested rice field having 5-6 tonnes of paddy straw. After application, the microbial decomposer and straw are mixed in soil uniformly using mechanical interventions i.e Rotavator/ Harrow/Reverse mould-board plough followed by light irrigation (if field is dry). It accelerates process of paddy straw decomposition and field is ready for sowing of next crop in 20 days following conventional tilling (CT) practices.

(c) and (d) Demonstrations on Pusa Decomposer capsules kits and liquid consortium for *in-situ* agricultural waste management at farmers' fields in stubble burning prone areas were carried out at 13,992 hectares. In addition, demonstrations/trials for the Ready-to-use wettable powder formulations were also conducted in collaboration with state governments and various Krishi Vigyan Kendras (KVKs) covering 1787.6 hectares. The Pusa Decomposer has been put to use in different states viz., Uttar Pradesh, Delhi, Haryana, Punjab, Madhya Pradesh, Maharashtra, Rajasthan, Bihar, Gujrat and Uttrakhand. Through the schemes of state governments and public private partnership, 6.89 lakh hectares area during 2021 and 7.70 lakhs hectare area during 2022 was covered under in-situ decomposition of stubble.

(e) and (f) The Government made wider publicity through various communication means about advantage of use of Pusa Decomposer for rapid decomposition of rice residues. Indian Agricultural Research Institute, New Delhi, Govt. of NCT of Delhi and different KVKs in Haryana (Panipat, Fatehabad, Sonipat), Delhi (Ujwa), Uttar Pradesh (Bahraich, Saharanpur, Raibarelli) and Rajasthan (Jhunjhunu) demonstrated the application of Pusa Decomposer. Also the license of the pusa decomposer technology has been transferred to nine other entities for its enhanced application for *in-situ* decomposition of stubble/ parali.
