

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**RAJYA SABHA**  
**UNSTARRED QUESTION No. 1802**  
TO BE ANSWERED ON 16.03.2023

**In-situ stubble management**

1802. DR. AMAR PATNAIK:  
SHRI MOHAMMED NADIMULHAQUE:

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

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

**ANSWER**

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

(a) to (c)

The Indian Agricultural Research Institute (ICAR) has developed Pusa Decomposer, a microbial consortium of fungal species for rapid decomposition of paddy straw. Use of this consortium accelerates process of paddy straw decomposition in the field itself and paddy straw gets decomposed in 20-25 days after spraying.

The bio-decomposer has been used on farm field areas prone to stubble burning and the State-wise area is given as Annexure-I.

For wide-spread application of bio-decomposer, provisions have been made to conduct large scale demonstrations on the farmers' fields and the financial requirements towards these demonstrations may be met from the flexi funds being provided under the scheme. As the application of decomposer in the fields involves preparing and multiplying the formulation to a water soluble sprayable form in large quantities and then its application in the harvested fields through suitable sprayers, the implementing agencies (State Governments, KVKs and ICA R institutions) have been advised to engage service providers/custom hiring centres

having adequate resources after following due procedure for engagement of such service providers, for the following broader tasks to be carried out:

- (i) Identify the farmers and area for large scale application of bio-decomposer technology
- (ii) Geo-referencing of the identified area
- (iii) Procuring and making available bio-decomposer in required quantity
- (iv) Provide spraying services of the decomposer at scale through suitable sprayers
- (v) Advising the farmers to follow irrigation and primary tillage operations for completing the protocol of decomposition.
- (vi) create awareness and ensure follow through on protocol for pre and post spraying operations
- (vii) Monitoring the fields through satellite and ground observations for decomposition of the crop residue and that the fields are not burnt by the farmers
- (viii) Reporting and documenting the entire demonstration programme and its outcome.

To support the efforts of the Governments of Punjab, Haryana, Uttar Pradesh and NCT of Delhi to address air pollution caused due to stubble burning and to subsidize machinery required for management of crop residue, a Central Sector Scheme on Crop Residue Management has been implemented w.e.f. 2018-19. Under this scheme, financial assistance @ 50% is provided to the farmers for purchase of crop residue management machinery and @ 80% is provided to Cooperative Societies, FPOs and Panchayats for establishment of Custom Hiring Centres.

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## State-wise area used for Bio-decomposer

Sl. No.	State	Area (ha)
1.	Punjab	1870
2.	Haryana	137600
3.	Uttar Pradesh	603400
4.	ICAR	2190.30
Total		745060.30