



Pusa Decomposer to Curb Stubble Burning

Why in News

Recently, the scientists have developed a **bio-decomposer technique** called '**PUSA Decomposers**' for converting crop **stubble into compost**.

- Delhi and many other North Indian States are covered with smoke during winters due to **stubble burning** in the neighbouring States by the farmers.

Key Points

▪ PUSA Decomposers:

- The decomposers are in the **form of capsules** made by extracting **fungi strains** that help the paddy straw to **decompose at a much faster rate** than usual.
 - The fungi helps to produce the **essential enzymes** for the degradation process.

▪ Decomposer Mixture:

- It involves making a **liquid formulation** using decomposer capsules and fermenting it over 8-10 days and then spraying the mixture on fields with crop stubble to ensure speedy bio-decomposition of the stubble.
 - The farmers can prepare 25 litre of liquid mixture with 4 capsules, jaggery and chickpea flour. The mixture is sufficient to cover 1 hectare of land.

▪ Time to Decompose:

- It takes around 20 days for the degradation process to be completed.
 - Under usual circumstances, shredded and watered paddy straw, which is mixed with soil, takes at least 45 days to decompose.
 - It does **not give enough time for farmers** to prepare fields for the wheat crop on time.

▪ Benefits:

- The decomposer **improves the fertility** and **productivity of the soil** as the stubble works as manure and compost for the crops and **lesser fertiliser consumption** is required in the future.
 - The soil loses its richness due to stubble burning and it also destroys the useful bacteria and fungi in the soil, apart from causing harm to the environment.
- It is an **efficient and effective, cheaper, doable and practical technique** to stop stubble burning.
- It is an **eco-friendly and environmentally** useful technology and will contribute to achieve **Swachh Bharat Mission**.

[Source: TH](#)

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