

STUBBLE

BURNING

It is a common practice followed by farmers to prepare fields for sowing of wheat in November as there is little time left between the harvesting of paddy and sowing of wheat.

Why farmers opt for stubble burning?

- They do not have alternatives for utilising them effectively.
- The farmers are ill-equipped to deal with waste.
- With less income due to crop damage, farmers are likely to be inclined to light up their fields to cut costs and not spend on scientific ways of stubble management.

Advantages of stubble burning

- It quickly clears the field and is the cheapest alternative.
- Kills weeds, including those resistant to herbicide.
- Kills slugs and other pests.
- Can reduce nitrogen tie-up.

Effects of Stubble Burning

- Open stubble burning emits large amounts of toxic pollutants in the atmosphere which contain harmful gases like methane, Carbon Monoxide, Volatile organic compound and carcinogenic polycyclic aromatic hydrocarbons. They may eventually cause smog.
- Burning husk on ground destroys the nutrients in the soil, making it less fertile.
- Heat generated by stubble burning penetrates into the soil, leading to the loss of moisture and useful microbes.

Measures to curb stubble burning

- SC directed the governments of Haryana, Punjab and Uttar Pradesh to pay farmers a financial incentive
- Government of Punjab appointed 8000 nodal officers in villages to put a check on stubble burning.
- Penalties for stubble burning are imposed on farmers who break the law and resort to burning crop residue.
- More than 23,000 crop residue management machines are being given to farmers for on-site management
- Under a 100% centrally-funded scheme, in-situ residue management machines are given to individual farmers at 50% subsidy and to CHCs (custom hiring centres) at 80% subsidy.
- The states of Punjab and Haryana are also providing such machines and setting up more CHCs.
- Centre informed the Supreme Court that it would bring in a law to curb stubble burning.
- Turbo Happy Seeder (THS) machine can uproot the stubble and also sow seeds in the area cleared.
- Pusa bio-decomposer, developed by the scientists at the Indian Agricultural Research Institute turns crop residue to manure in 15-20 days by accelerating the decomposition process.

Alternative solutions that can avoid Stubble Burning

- Promote paddy straw-based power plants. It will also create employment opportunities.
- Incorporation of crop residues in the soil can improve soil moisture and help activate the growth of soil microorganisms for better plant growth.
- Convert the removed residues into enriched organic manure through composting.
- New opportunities for industrial use such as extraction of yeast protein can be explored through scientific research.