GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

RAJYA SABHA
UNSTARRED QUESTION NO. 1288
TO BE ANSWERED ON 06/12/2024

PROMOTION OF HIGH-VALUE CROP SUBSTITUTION TO REDUCE STUBBLE BURNING

1288. SHRI KARTIKEYA SHARMA:

Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

(a) whether steps have been taken to promote high-value crop substitution for paddy in Punjab, Haryana, and Western Uttar Pradesh to reduce stubble burning;

(b) whether the Punjab Preservation of Subsoil Act, 2009 mandates Punjab to delay paddy sowing to align with monsoons for groundwater conservation;

(c) whether this delayed sowing timeline contributes significantly to stubble burning, and if so, the details thereof;

(d) whether advancing paddy sowing by a month could mitigate stubble burning; and

(e) whether Government is developing water-efficient, fast-maturing paddy varieties to facilitate timely harvesting?

ANSWER

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE

(SHRI RAMNATH THAKUR)

(a): One of the most promising alternatives to paddy is Maize cultivation, which holds significant potential, particularly for bioethanol production. High value crops such as fruits and vegetables also have the potential to replace cereal crops. The Indian Council of Agricultural Research (ICAR) has promoted Maize cultivation in Punjab and Haryana through various outreach programmes. Under the 'Participatory Innvovation Platform on Potential Yield Realization of Maize-Based Cropping Systems in Punjab and Haryana' (2021-23), maize yields ranged from 57.33 quintals/hectare to 76.00 quintals/hectare in Punjab and from 61.33 quintals/hectare to 77.00 quintals/hectare in Haryana. These findings highlight the potential yield optimization in maize-based systems across the two States, using best agronomic practices. The Department of Agriculture & Farmers Welfare (DA&FW) is implementing Crop Diversification Programme (CDP) in the Original Green Revolution States of Punjab, Haryana and Western Uttar Pradesh since 2013-14 to diversify paddy crop to alternate crops like oilseeds, pulses, coarse cereals/nutria-cereals, cotton and agro-forestry.

(b) to (e): To mitigate the complication of the diminishing water table in the State, the Government of Punjab notified 'Punjab Preservation of Subsoil Water Act, 2009'. Under this Act, the State has notified date of sowing of Direct Seeded Rice and transplantation of paddy for the year 2024 to commensurate with onset of monsoon season to conserve the precious groundwater. This has attributed to shortening of window period for sowing of wheat crop after the harvest of paddy, which is being addressed by promoting water use efficient fast maturing (early maturing) paddy varieties to facilitate timely harvesting and use of mechanized implements like Happy Seeder, Super Seeder and Smart Seeder which can sow wheat directly into just-harvested rice fields without burning or removing straw from the fields, also helps in preventing stubble burning. In the present scenario of variable climate change and resource conservation, especially water resources including groundwater, the ICAR is developing varieties that suits well to aerobic adaptation, where seeds are directly sown in the field and no transplanting is required, which saves lot of water for puddling. National Rice Research Institute (ICAR) developed many aerobic rice varieties like CR Dhan 200 (Pyari), CR Dhan (201, 202, 203, 204, 205, 206, 207, 209, 210, 211, 212 and 214). The Punjab Agricultural University (PAU), Ludhiana has also introduced short duration paddy varieties such as PR-121 and PR-126.

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