

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

RAJYA SABHA
UNSTARRED QUESTION NO-2891
ANSWERED ON- 20/12/2024

ISSUES RELATED TO PRODUCTION OF COTTON

2891. SHRI RANDEEP SINGH SURJEWALA:

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

- (a) whether Government has conducted any comprehensive study on the issues relating to production, productivity, soil system of cotton in view of increasing the productivity of cotton, if so, the details thereof;
- (b) whether it is a fact that the per hectare yield of cotton in the country is extremely low compared to the world's major cotton-producing countries, if so, the steps taken by Government to increase the yield; and
- (c) the steps taken by Government to ensure the availability of affordable and climatically adapted Bt or other Hybrid varieties of cotton seeds in the country?

ANSWER

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE
(SHRI BHAGIRATH CHOUDHARY)

- (a): ICAR-Central Institute for Cotton Research (CICR), Nagpur has classified 142 cotton growing districts of the country into 4 categories viz., most-efficient, efficient, less-efficient, and in-efficient districts across 10 states viz., Punjab, Haryana, Rajasthan, Madhya Pradesh, Gujarat, Maharashtra, Telangana, Andhra Pradesh, Karnataka and Tamil Nadu using Relative Spread Index (RSI) and Relative Yield Index (RYI).
- (b): The cotton productivity in India is estimated at 443 kg lint/ha and is relatively low in comparison to the major cotton producing countries like China, Brazil, and USA that have adapted High Density Planting System (HDPS) with high precision agro-ecologies.

In order to boost cotton yield especially in low productivity areas, HDPS is promoted and four compact *Bt* cotton varieties and 19 *Bt* cotton hybrids amenable to HDPS have been released during past three years. A Special Project on Cotton 'Targeting technologies to agro-ecological zones-large scale demonstrations of best practices to enhance cotton productivity' under National Food Security Mission (NFSM) was implemented in 61 districts of eight states covering an area of 9064 ha involving 10418 farmers during 2023-24 kharif season in Public-Private-Partnership (PPP) mode for scaling up of HDPS in shallow soils and Closer Spacing (CS) in medium soils. The average yield increase in the HDPS adopted plots was 30.40% and average yield increase in the CS adopted plots was 39.15%. This special project has been extended into second year 2024-25 with a target of 14478 ha area in 8 states. In addition, 11 *Bt* cotton hybrids highly resistant to Cotton Leaf Curl Virus, one of the devastating diseases of cotton, were released to minimize the losses in north zone.

To manage yield loss due to pink-bollworm, awareness cum management strategies is being disseminated through Insecticide Resistance Management (IRM) project in 8 states covering 21 districts involving multiple stakeholders. A collaborative pilot project on “Artificial Intelligence (AI) based pheromone traps” for monitoring incidence of pink-bollworm has been implemented at pilot scale at 18 locations in three cotton growing districts of Punjab, which facilitated timely issue of “Pest alerts and management advisories” to cotton growers.

(c): To ensure the availability of affordable and climatically adapted *Bt* or other Hybrid varieties of cotton seeds in the country, the Government has released and notified 163 *Bt* cotton hybrids and 3 non-*Bt* cotton hybrids/ varieties developed by both public & private sector organizations. The seeds of these varieties / hybrids are available for the farmers in all cotton growing areas since 2020.
