

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

**RAJYA SABHA**  
**UNSTARRED QUESTION NO-2118**  
ANSWERED ON- 13/12/2024

**CHALLENGES IN COTTON PRODUCTION**

2118. DR. SYED NASEER HUSSAIN:

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

- (a) whether Government has assessed the impact of outdated cotton seed technology on cotton yields and the resulting switch by many farmers to crops like soybean and paddy;
- (b) whether any assessment has been done;
- (c) the data on farmers that moved out of cotton cultivation during the last three years; and
- (d) the specific initiatives that are currently being undertaken to introduce advanced cotton seed technology to address yield constraints and discourage crop-switching among farmers?

**ANSWER**

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

(a) to (c): Indian Council of Agricultural Research (ICAR)-Central Institute for Cotton Research (CICR) has conducted the study on impact of outdated seeds on cotton yield and estimated that 48 lakh bales yield loss is recorded in 2022-23 against the highest yield of 360 lakh bales production in 2019-2020. Out of this, about 13 lakh bales yield loss is due to insect attack (Pink Boll Worm) on Bollgard I and Bollgard II varieties of cotton seed and about 35 lakh bales yield loss is due to climatic & management causes.

There is a slight reduction in the area under cotton during last three years from 132.86 lakh ha (2020-21) to 126.88 lakh ha (2023-24). However, data on farmers moved out of cotton cultivation has not been maintained.

(d): Some of the major initiatives undertaken by the Government to address yield constraints in cotton are as listed below:

- Developed 63 climate resilient cotton varieties for rainfed conditions.
- High density plantation system is now promoted for which 19 compact Bt hybrids have been released.
- 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.

Direct training on pest monitoring using AI Traps has been given to 180 farmers and weekly pests alerts were sent to 21,800 cotton farmers in Punjab as voice messages. This intervention has led to minimizing PBW damage and reduced 38% consumption of pesticide in comparison to normal fields.

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