

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

LOK SABHA
UNSTARRED QUESTION NO. 2318
TO BE ANSWERED ON THE 6TH AUGUST, 2024

CULTIVATION OF GM CROPS

2318: SHRI KESINENI SIVANATH:

Will the MINISTER OF AGRICULTURE AND FARMERS WELFARE कृषि एवं किसान कल्याण मंत्री be pleased to state:

- (a) the details of Genetically Modified (GM) crops that are currently commercially cultivated in different States, such as the area under cultivation, the yield, and any variations observed across States, crop-wise;
- (b) whether the Government has conducted any study regarding the impact of GM crops in the country and if so, the number of farmers that are cultivating GM crops in the State of Andhra Pradesh;
- (c) the yield difference of GM crop farmers compared to farmers who cultivate ordinary crops;
- (d) the income difference of GM crop farmers compared to farmers who cultivate ordinary crops; and
- (e) whether the Government aims to conduct such a study, if so, the details thereof and if not, the reasons therefor?

ANSWER

MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE

कृषि एवं किसान कल्याण राज्य मंत्री (SHRI RAMNATH THAKUR)

- (a): Bt. cotton is the only Genetically Modified (GM) crop approved in 2002 by the Genetic Engineering Appraisal Committee (GEAC) of Ministry of Environment, Forest and Climate Change for commercial cultivation in the Country. Details of State wise area, production and yield of Bt. cotton is at Annexure – I.

(b): Indian Council of Agricultural Research (ICAR)- Central Institute for Cotton Research (CICR), Nagpur conducted study to evaluate the impact of Bt. cotton in Maharashtra during 2012-13 and 2013-14. ICAR-CICR also conducted study on impact of Bt. cotton on soil ecology. During the period of survey the incidence of bollworms infestation reduced drastically and also decreases in number of insecticide application from 8 to 4. Further, ICAR-CICR studies had shown no adverse effect of Bt. cotton cultivation on soil ecological parameters.

During the year 2023–24, in Andhra Pradesh State 4,73,345 farmers are cultivating Bt. cotton.

(c) to (e): The study conducted by ICAR-CICR observed an yield difference of 3-4 qtls/acre with the adoption of Bt. cotton. Further, ICAR-CICR study revealed that increase in income with the adoption of Bt. cotton is due to yield increase and reduction in insecticide cost against the cotton bollworm. Current net return from Bt. cotton is estimated at Rs.25,000 per ha in rainfed situation with the adoption of suitable agronomy. With the rapid adoption of Bt. cotton by the farmers, currently more than 96% area under cotton cultivation is occupied by the Bt. cotton, to conduct such study on Bt. cotton is difficult as the corresponding non Bt. cotton are not under cultivation.

Annexure – I

Details of State wise area, production and yield of Bt. cotton:

State	Area (lakh ha)		Production (lakh bales)		Yield (kg/ha)	
	21-22	22-23	21-22	22-23	21-22	22-23
Punjab	2.51	2.49	6.46	4.44	437	303
Haryana	6.36	5.75	13.16	10.01	352	296
Rajasthan	7.56	8.15	24.81	27.74	558	579
Gujarat	22.84	24.84	75.09	87.95	559	602
Maharashtra	44.10	41.82	82.49	83.16	318	338
Madhya Pradesh	5.60	5.95	14.20	14.33	431	410
Telangana	18.89	19.73	48.78	57.45	439	495
Andhra Pradesh	5.54	7.04	17.08	15.41	524	372
Karnataka	6.74	9.49	19.55	25.68	493	460
Tamil Nadu	1.48	1.73	3.02	3.19	347	313
Odisha	1.93	2.16	6.26	7.05	551	554
Others	0.17	0.12	0.28	0.19	279	269
TOTAL	123.72	129.27	311.18	336.60	428	443
