

**GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA**

UNSTARRED QUESTION NO:4300
ANSWERED ON:20.12.2011
AREA UNDER TRANSGENIC CROPS
Singh Shri Jitender

Will the Minister of AGRICULTURE be pleased to state:

- (a) the details of area under cultivation of transgenic crops in the country;
- (b) the details of transgenic crops being cultivated in the country;
- (c) whether the Government has assessed the impact of cultivation of the said crops; and
- (d) if so, the details thereof?

Answer

MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE, FOOD PROCESSING INDUSTRIES AND PARLIAMENTARY AFFAIRS(SHRI HARISH RAWAT)

(a)&(b): Bt. Cotton is the only crop approved for commercial cultivation in nine states by Genetic Engineering Appraisal Committee (GEAC) as per the provisions of 'Rules 1989 for the Manufacture, Use, Import, Export and Storage of Hazardous Micro Organisms/ Genetically Engineered Organisms or Cells' under the Environment (Protection) Act, 1986. The area under Bt. cotton is targeted to be around 95.04 lakh ha for the year 2011-12.

(c)&(d): The findings of laboratory and field studies conducted and also commissioned by Central Institute for Cotton Research (CICR), Nagpur showed that Bt. Cotton was toxic to bollworms but did not have any direct effect on any of the non- targeted beneficial insects and was also non-toxic to, birds, fish, cow, goat and soil micro-organisms. Studies conducted by CICR showed that Bt. Cotton has been playing a major role in effectively protecting the crop from bollworms, especially the American Bollworm, *Helicoverpa armigera*, thus preventing yield losses. The biggest gain from the technology was in the form of reduced insecticide usage from 46% in 2001 to less than 26% after 2006 and 21% during the last two years 2009 and 2010. The introduction of Bt. cotton hybrids has helped in production increase from 156 lakh bales (170 kg lint per bale) in 2001 to an estimated 356 lakh bales in 2011. Bt. Cotton was introduced in 2002 and the area increased from 0.29 lakh hectares in 2002 to 95.04 lakh hectare in Kharif 2011(target). The productivity was 309 kg per hectare in 2001 before the introduction of Bt. cotton which increased to 495 Kg/ha in 2010.

Studies conducted by CICR showed that there was enormous farmer support for Bt. Cotton as is evident from the fact that more than 90% of the area in all the cotton growing states in India is now under Bt. Cotton. Maximum gains in yield increase have been obtained in Gujarat, Andhra Pradesh, Maharashtra, Haryana, Punjab and Tamil Nadu. There have been a few stray reports of opposition to the technology from NGO groups, but these have had a miniscule impact on the spread of Bt. Cotton in India. Farmers are being constantly educated by CICR, State Agricultural Universities, Krishi Vigyan Kendras through Front Line Demonstrations and training programmes on all aspects pertaining to GM crops, its bio-safety and suitable methods for harnessing sustainable benefits through appropriate crop production technologies.