

**GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA**

UNSTARRED QUESTION NO:2691
ANSWERED ON:10.08.2010
SURVEY ON BT. COTTON
Rao Shri Nama Nageswara

Will the Minister of AGRICULTURE be pleased to state:

- (a) the number of varieties of Bt. Cotton approved by the Genetic Engineering Approval Committee (GEAC) for commercial cultivation by farmers in the country, after due trials;
- (b) whether any sample survey has been conducted at the farm level in different States including Himachal Pradesh to assess the performance of these varieties in terms of crop yield and pest resistance etc.;
- (c) if so, the outcome of the survey;
- (d) whether the Government has conducted any study to assess the efficacy of Bt. Cotton cultivation in the country in terms of crop productivity as well as its side effects; and
- (e) if so, the outcome of the study?

Answer

MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND MINISTER OF STATE IN THE MINISTRY OF CONSUMER AFFAIRS, FOOD AND PUBLIC DISTRIBUTION PROF. K.V. THOMAS

(a): 810 Bt. Cotton varieties have been approved by the Genetic Engineering Approval Committee (GEAC) of the Ministry of Environment and Forest/ Event Based Approval Mechanism (EBAM) serviced by Department of Bio Technology (DBT).

(b) to (e): All Genetically Modified (GM) crops are tested for safety, efficacy and stability prior to release under the Rules for the Manufacture, Use/Import/Export and Storage of Hazardous Microorganisms/Genetically Engineered Organisms or Cells, 1989. The GEAC has authorized Central Institute for Cotton Research (CICR), Nagpur as the Nodal agency for monitoring the development of insect resistance in cotton crops since 2002. Reports received from CICR, Nagpur etc. indicate that Bt. Cotton was toxic to bollworms and there is no development of insect resistance in bollworms to Bt protein. But it did not have any direct effect on any of the non-target beneficial insects and was also non-toxic to birds, fish, cow, goat and soil micro-organisms. CICR, Nagpur has also conducted an analysis of the efficacy of Bt. Cotton cultivation in terms of crop productivity. The above studies have established the positive impact of Bt. Cotton in all cotton growing areas and under diverse agro climatic conditions. Frequency of pesticide sprays that a cotton crop requires has been reduced and the harvested cotton yield has increased substantially. Farmers' earnings and profitability from Bt. Cultivation have been significantly higher as compared to those farmers cultivating non- Bt. Cotton.