

# GM CROP

## MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE

### FIELD TRIALS OF GM CROPS

03<sup>rd</sup> March 2015

LSQ \*105

MD. BADARIDDOZA KHAN  
CHAUDHURY SHRI JITENDRA

Will the Minister of **ENVIRONMENT, FORESTS AND CLIMATE CHANGE** be pleased to state:-

- (a) the norms /guidelines regulating field trials of Genetically Modified (GM) crops;
- (b) the present status of field trials of 13 GM food crops including mustard and brinjal;
- (c) the details of crops subjected to GM field trials and the organizations/States involved therein;
- (d) whether certain States/ agencies/ experts have expressed their reservations over introduction and field trials of GM crops; and
- (e) if so, the details thereof and the reaction of the Government thereto including the steps taken to address their objections / concerns?

#### **MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT, FORESTS AND CLIMATE CHANGE (SHRI PRAKASH JAVADEKAR)**

(a) to (e) Statement is laid on the Table of the House.

#### ***STATEMENT REFERRED TO IN THE REPLY TO PARTS (a) TO (e) OF THE LOK SABHA STARRED QUESTION NO 105 BY SHRI MD BADARUDDOZA KHAN AND SHRI JITENDRA CHAUDHURY REGARDING FIELD TRIALS OF GM CROPS DUE FOR REPLY ON 3.03.2015***

(a) The Genetic Engineering Appraisal Committee (GEAC), the apex body notified under “Rules for the Manufacture, Use/Import/ Export and Storage of Hazardous Micro Organisms/ Genetically Engineered Organisms or Cells, 1989” is following a case by case assessment of GM crops including experimental field trials for generating biosafety data. All GM cropfield trials are carried out in confined conditions in accordance with the “Guidelines and Safe Operating Practices (SOPs) for the conduct of Confined Field Trials of Transgenic Plant, 2008” and subjected to stringent safety norms which include

- (i) maintaining a crop specific isolation distance from the periphery of the experimental site;
- (ii) maintaining a biological and physical barrier all around the experimental plot;
- (iii) post-harvest restrictions
- (iv) submission of a validated event specific test protocol; and
- (v) designating a lead scientist responsible for ensuring compliance. The field trials are also monitored by a Central Compliance Committee specifically constituted by the Review Committee for Genetic Manipulation (RCGM) and the GEAC for monitoring each trial. The Central Compliance Committee consist of multi-disciplinary experts as well as representatives from RCGM, GEAC, State Agriculture Departments and State Agriculture Universities.

(b-c)The twelve GM crops approved by the GEAC during March, 2013 to July, 2014for conducting confined field trials include cotton, rice, castor, wheat, maize, groundnut, potato, sorghum, brinjal, mustard, sugarcane, and chickpea. The approval is subject to obtaining NOC from the respective State Governments where the trials would be conducted. Current status of GM crop field trials are annexed at Annexure-I.

(d-e) The State Governments of Kerala, Bihar, Karnataka and Madhya Pradesh have informed that the GM crops field trials will not be allowed in their State. Subsequently, the GEAC in its meeting held on 06.07.2011 has decided

that all applicants would be required to obtain NOC from the State Governments in the first instance before issuance of approval letter for conduct of field trials.

**MINISTRY OF AGRICULTURE**

**R D ON GM CROPS**

*24<sup>th</sup> February 2015*

LSQ 116

P. KUMAR

Will the Minister of **AGRICULTURE** be pleased to state:-

- (a) whether the Government has undertaken research and development (R&D) work on GM crops the country;
- (b) if so, the details and the outcome thereof;
- (c) whether any research is being conducted on GM crops for the benefits of agriculture or otherwise;
- (d) whether the Government assessed the impact of GM crops on environment and the life of the people/animals in the country;
- (e) if so, the outcome thereof; and
- (f) the measures taken by the Government to check the adverse impact of GM crops and to protect the traditional crops in the country?

**MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (DR. SANJEEV KUMAR BALYAN)**

(a) Yes, Madam.

(b) Indian Council of Agricultural Research launched a Plan Scheme entitled 'Network Project on Transgenics in Crops' during XI Five-Year Plan (2007-2012) with an outlay of Rs. 56.5 crores and also approved for the XII Plan period (2012-17) with an outlay of Rs.109.1 crores for research on genetically modified (GM) crops. In addition, Department of Biotechnology, Ministry of Science & Technology is promoting R&D activities in agriculture biotechnology by providing technical and financial support for crop improvement, identification of important genes and their utilization for developing GM crops with improved agronomic characters, herbicide tolerance, delayed fruit ripening, increased yield and oil content, enhanced nutrients and tolerance to biotic and abiotic stresses.

Total of 19 contained field trials were conducted for evaluation of seed yield, insect, fungal and viral resistance, abiotic stress tolerance, reduction of cold-induced sweetening and delayed fruit ripening in cereals, oilseeds, pulses and vegetables.

(c) Yes, Madam.

(d) Yes, Madam.

(e) Bt. cotton is the only transgenic crop approved for cultivation in India after elaborate biosafety studies including its impact on human & animal health and environment. There are no credible scientific reports indicating that Bt cotton has any adverse impact on the environment, human health and livestock.

(f) GM crops are subjected to elaborate food and environmental safety assessment following regulatory guidelines and Standard Operating Procedures under Rules 1989 of Environmental Protection Act (1986). The environmental safety assessment includes studies on pollen escape, out-crossing, aggressiveness, weediness and effect of the gene on non-target organisms.