

**GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA**

UNSTARRED QUESTION NO:3886
ANSWERED ON:20.04.2010
CROPS FOR GENETIC MODIFICATION
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Will the Minister of AGRICULTURE be pleased to state:

- (a) whether the Indian Council of Agricultural Research and Department of Biotechnology have recommended various cash crops for genetic modifications;
- (b) if so, the details of cash crops under review in various institutes, institution-wise;
- (c) the criteria fixed for examination of such crops; and
- (d) the names of cash crops likely to be released by the Review Committee on Genetic Manipulation and Genetic Engineering Approval Committee in the current financial year?

Answer

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

(a) & (b): The Indian Council of Agricultural Research (ICAR) is conducting research on 18 crops namely rice, wheat, sorghum, maize, chickpea, pigeonpea, soybean, cotton, brassica, banana, papaya, tomato, brinjal, potato, cassava, groundnut, castor and sugarcane which includes cash crops also for genetic modifications. The Department of Biotechnology (DBT), Ministry of Science & Technology, Govt. of India has also supported research programmes on potato, cotton, sugarcane and banana under nine different projects at different Institutes.

The institute-wise and crop-wise details are attached as Annexure I.

(c) The Government of India has put in place a robust and transparent regulatory mechanisms for examination of Genetically Modified (GM) crops. The Government of India is following a case by case approval of GM crops even if it is approved for commercial cultivation in other countries. The GM crops are monitored and reviewed at all stages of development including research and field trial stage. The development of all GM crops is governed under the 'Rules for the Manufacture, Use, Import and Export and Storage of Hazardous Micro-organisms / Genetically Engineered Organisms or Cells, 1989', issued under the provision of the Environment (Protection) Act, 1986 by Ministry of Environment and Forests. These Rules cover the areas of research as well as activities involving manufacture, use, import, export, storage and large scale applications of Genetically Modified Organisms (GMOs) and products made there from throughout India. The Rules are supported by bio-safety guidelines for evaluating environmental and health safety aspects of genetically modified products. Rules, 1989 are implemented through Competent Authorities namely:

Institutional Bio-safety Committee (IBSC) at the institutional level

Review Committee on Genetic Manipulation (RCGM) under DBT to oversee research and development.

Genetic Engineering Approval Committee (GEAC) under MoEF is the apex body to grant approval for large scale trials and commercial release of Living Micro Organisms (LMOs)/Hazardous Micro Organisms (HMOs).

State Biotechnology Coordination Committee (SBCC)/District Level Committees (DLCs) at the state level responsible for compliance and post release monitoring.

The Genetic Engineering Approval Committee (GEAC) is the apex body under Rules, 1989 for according approval for large scale use and commercial release of GMOs.

(d) With new/modified cry genes Bt cotton and Bt brinjal have been recommended by the GEAC to release. A few other GM crops viz. pigeonpea, banana, rice are in different stages of development and progress is being reviewed by the GEAC. For the time being Government have decided to impose a moratorium on commercialization of Bt. Brinjal so that concerns expressed by the public, NGOs, scientists and the State Governments are addressed adequately.