

**GOVERNMENT OF INDIA  
AGRICULTURE  
LOK SABHA**

UNSTARRED QUESTION NO:4401  
ANSWERED ON:07.12.2010  
BIO-TECHNOLOGICAL RESEARCH  
Hussain Shri Syed Shahnawaz

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

- (a) the details of the agricultural products on which bio-technological research is being done;
- (b) the details of the agro-products on which the said research work has been completed;
- (c) the details of the agricultural products for which the Government is contemplating to commercialise; and
- (d) the details of the decision taken by the Government regarding commercial production of Bt. Brinjal?

**Answer**

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

(a) The major areas of biotechnological research are achieving insect resistance in rice, maize, brinjal, cotton, chickpea, pigeonpea, sorghum, sugarcane, cabbage, cauliflower and tomato; for disease resistance in potato, cotton, watermelon, tomato, papaya and groundnut; drought tolerance in rice, sorghum, chickpea and groundnut as well as for aroma/grain length/salt tolerance/grain filling in rice; herbicide tolerance in maize and cotton; protein quality improvement and cold induced sweetening in potato; male sterile line for rice and mustard; molecular diagnostic kits and vaccine for livestock and poultry diseases; development of nutraceuticals and functional foods, cloning of embryos and stem cell research.

(b) & (c): In rice, bacterial blight resistance Samba Mahsuri and Improved Pusa Basmati-I; in maize, QPM Vivek Hybrid-9; in pearl millet, downy mildew resistance improved HHB 67; in cotton, for insect resistance, Bollgard I and Bollgard II, Event I of IIT Kharagpur, GFM Cry1A, and Event 9124 have been approved for commercial cultivation. In livestock, DIVA and ELISA kits for Foot and Mouth Disease, diagnostic kits for blue tongue disease and gastrointestinal parasites have been developed. Of the above, Bt. Cotton is the only transgenic crop.

(d) The Government has decided to impose a moratorium on commercialization of Bt brinjal.