

**GOVERNMENT OF INDIA  
AGRICULTURE  
LOK SABHA**

UNSTARRED QUESTION NO:2519  
ANSWERED ON:16.08.2011  
BIO TECHNOLOGY RESEARCH  
Hussain Shri Syed Shahnawaz

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

- (a) the names of agricultural products on which bio-technology research is being done;
- (b) the names of products on which research has been completed; and
- (c) the agricultural products proposed to be marketed on a commercial basis by the Government?

**Answer**

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

(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; 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, poultry and fish diseases; development of nutraceuticals and functional foods, cloning of embryos and stem cell research .

(b) 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.

(c) Commercial cultivation/production of above products other than transgenic crops (with the exception of Bt Cotton) are in place. Agriculture products such as improved Pusa Basmati-I rice, QPM maize and several diagnostics and vaccines have been commercialized.