

**GOVERNMENT OF INDIA  
AGRICULTURE  
LOK SABHA**

UNSTARRED QUESTION NO:2772  
ANSWERED ON:27.08.2013  
BIO TECHNOLOGY IN AGRICULTURE  
Choudhry Smt. Shruti

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

- (a) whether the Government has undertaken research and development works in bio-technology/ gene revolution for improving agricultural production and productivity;
- (b) if so, the details thereof; and
- (c) the steps taken/being taken by the Government to encourage the same in the farm sector?

**Answer**

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FOOD PROCESSING INDUSTRIES (SHRI TARIQ ANWAR)

(a) Yes, Madam.

(b) National Agricultural Research System (NARS) comprising Indian Council of Agricultural Research (ICAR) and State Agricultural Universities besides other public sector organizations are involved in various aspects of bio-technology research. The ICAR has established National Research Centre on Plant Biotechnology (NRCPB) at New Delhi to take up research on biotechnological aspects of agricultural crops. NRCPB has been operating a network project in transgenic crops since 2005 that covers 23 ICAR Institutes, for crop improvement towards better quality, pest resistance and such other identified traits. ICAR support biotechnology research through National Fund for Basic, Strategic and Frontier Application Research in Agriculture (NFBSFARA) and National Agricultural Innovation Project (NAIP). Marker assisted trait identification, selection and utilization towards quality of commodities, tolerance to biotic and abiotic stresses are taken up on cereals, pulses and oilseeds. Department of Biotechnology has established Genetic Engineering Units in Jawaharlal Nehru University, New Delhi, Indian Institute of Science, Bangalore, Banaras Hindu University, Varanasi and National Institute for Plant Genome Research (NIPGR) to work in the area of plant bio-technology. Two hundred and twenty DBT approved projects are in operation till May 2013 in agricultural biotechnology comprising crops, animals, aquaculture and marine biotechnology. This includes 3 projects under Small Business Innovation Research Initiative and 10 under Biotechnology Industry Partnership Programme.

(c) Based on the existing regulatory framework, through marker assisted selection/breeding, Improved Pusa Basmati-1 variety of rice is released for Basmati-growing areas of Delhi, Punjab, Jammu & Kashmir, Uttarakhand and Swarna Sub-1 for flood prone shallow lands. Further, buffalo, pig and yak have been successfully cloned for multiplication of elite breeds.