

**GOVERNMENT OF INDIA  
SCIENCE AND TECHNOLOGY  
LOK SABHA**

UNSTARRED QUESTION NO:2783  
ANSWERED ON:18.08.2011  
RESEARCH WORK IN BIO TECHNOLOGY  
Punia Shri P.L.

**Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:**

- (a) whether the farmers are getting the benefits of the research work being undertaken in the field of bio-technology by the Government in the country;
- (b) if so, the percentage of farmers benefited in the country, State-wise; and
- (c) the efforts made by the Government for the wider dissemination of bio-technology?

**Answer**

MINISTER OF STATE FOR SCIENCE & TECHNOLOGY AND MINISTER OF STATE FOR EARTH SCIENCES

(ASHWANI KUMAR)

(a) Yes Madam. Farmers are getting benefited from the government research-based biotechnology products such as crop varieties obtained through genetic engineering or molecular breeding; tissue culture planting materials of spices, tree and woody species; biofertilizers; biopesticides; veterinary vaccines and diagnostics.

(b) The Indian research based biotechnology products in use are location or region specific in terms of their requirement. For example: hill region specific protein-rich maize varieties obtained through molecular breeding are registered for cultivation in Uttarakhand and parts of Himachal Pradesh; more than 1000 tonnes of mycorrhizal biofertilizer is applied per year in sugar cane fields of Andhra Pradesh; 60,000 tissue culture rootstocks of apple are planted in Himachal Pradesh; public sector technology-based genetically engineered insect resistant location-specific cotton varieties are grown in parts of four states. Therefore, it is difficult to obtain statistics on percentage of farmers benefited in the country or state-wise.

(c) Department of Biotechnology, Ministry of Science and Technology; Indian Council of Agriculture Research and Department of Agriculture Co-operation, Ministry of Agriculture, Government of India along with agriculture departments and universities of State Governments are engaged in wider dissemination of bio-technology. Through special schemes for popularizing the biotechnologies awareness campaigns, field demonstrations and training programmes through are undertaken regularly on large scale involving Krishi Vigyan Kendras, Agriculture Universities and specially funded bioresource complexes.