

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

UNSTARRED QUESTION NO:1189
ANSWERED ON:03.03.2011
RESEARCH PROGRAMME
Biju Shri P. K.

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

- (a) whether the Department of Bio-Technology is having any major research programme to develop Bio-pesticides and Bio-insecticides in the country as a alternative for toxic chemical pesticides and insecticides;
- (b) if so, the details thereof; and
- (c) if not, the reasons therefor?

Answer

MINISTER OF THE STATE IN THE MINISTRY OF SCIENCE & TECHNOLOGY AND MINISTER OF THE STATE FOR EARTH SCIENCES (ASHWANI KUMAR)

(a) Yes Sir.

(b) Department of Biotechnology has established programme of Biopesticides and Crop management in 1989. Development of cost effective and commercially viable production candidate biocontrol agents/biopesticides and demonstrating their field efficacy under different ecosystems in various economically important crops covering about 2, 15,000 ha. have been undertaken. Several production cum demonstration units were set up in various states for mass production. Collection, maintenance and supply of Nucleus cultures of biocontrol agents and host insects to the various production units was done by setting up two repository centres at Tamil Nadu Agriculture University, Coimbatore and National Bureau of Agriculturally Important Insects (NBAIL) Bangalore.

Several capable Integrated Pest Management (IPM) modules were developed for various economically important crops. In addition, sustained preservation of ecosystem was also demonstrated in adopted villages. The cost effectiveness of biopesticide technology in IPM and non-IPM plots of various crops was established.

The department initiated streamlining of guidelines for generation of toxicological data for registration purpose. To promote and facilitate biopesticides commercialization, department has taken suitable measures for generation of toxicological data of potential biopesticides. An extensive market survey is being done to assess the demand and supply gap in the country, map region wise requirements of biopesticides based on agricultural practices, crops and their pest profile.

Pheromones were identified for various insect pests to mass trap them in the field. Nanoparticle based carrier materials are also being developed to increase product efficacy in the field from 3-4 to 40-45 days.

The department has designated seven centres as "Referral Laboratories" in the country for standard determination and quality assurance. Intensive promotion programmes were launched for popularization and adoption of IPM and Integrated Pest and Nutrient Management (IPNM) techniques through training and extension activities.

Mass production technologies of Biopesticides/ Biocontrol agents and Biofertilizers were transferred to industries. Others such as entrepreneurs, progressive farmers, unemployed agriculture and science graduates have started producing biocontrol agents. These industries and individuals/organizations have launched their products in the market.