GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA

UNSTARRED QUESTION NO:4588
ANSWERED ON:22.05.2006
DEVELOPMENT OF BIO- TECHNOLOGY IN AGRICULTURE
Pathak Shri Brajesh

Will the Minister of AGRICULTURE be pleased to state:

(a) whether the Government is considering an action plan in regard to development of bio-technology in agriculture;

(b) if so, the details thereof; and

(c) the number of gene pools identified so far in the country and number of gene on which research is still going on?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTI LAL BHURIA)

(a) & (b): Yes, Sir. An ICAR Network Project on `Transgenic in crops` covering development of transgenic in 14 crops for improved traits such as resistance to biotic and abiotic stresses, quality improvement and shelf-life enhancement, and functional genomics in seven crops, and a Network on Molecular Breeding comprising 14 sub-projects on 11 field and horticultural crops, have been initiated. In addition, Plant genomics with a focus on structural and functional genomics of rice and tomato, disease diagnostics and management in crops, animals and fish, bioremediation, bio-fertilizers etc. are being undertaken. Strengthening of necessary infrastructure and facilities and development of human resource through national and international linkages, in crop, animal and fish biotechnology are also being pursued.

(c) Valuable gene pools such as microorganisms occurring in different soils of the country, native tropical grain legumes, desert plants, halophytes etc. are identified and exploitation of these gene pools for improving the major crops is underway. Insecticidal protein gene present in native strains of Bacillus thuringiensis, protease inhibitor and lectin genes of grain legumes, salinity tolerance genes from wild rice and osmo-tolerance genes from desert plants have been isolated and expressed in crop species to confer resistance/tolerance to various stress factors. Research is in progress on identification of genes from many crop plants and microorganisms of agricultural importance, identification of gene pools for molecular characterization of livestock and poultry species and on fish genetic resources and their conservation.