

farmers and agricultural labourers are being served. These proposals aim at studying the resources of such farmers, developing a feasible farm/development plan and introducing viable technologies for their economic upliftment. In the first phase of the lab to land programme (1970—82) 50,000 small and marginal farm families were adopted for introducing new technologies and raising their production and income. In the second phase (1982—85) 75,000 new farm families have been selected for this purpose. Similar schemes have been launched to serve the scheduled castes and tribal communities. Krishi Vigyan Kendras are being established for imparting vocational training to the farmers, farm women and fishermen. Already 45 Krishi Vigyan Kendras have been established in different parts of the country and more are being established during Sixth Five Year Plan.

Use of atomic energy in agriculture

2857. SHRI VITHALRAO MADHAVARAO JADHAV: Will the Minister of AGRICULTURE be pleased to state:

(a) what progress has been made towards the use of atomic energy in agriculture;

(b) what strains have been evolved by the use of atomic energy and what is their performance in respect of obtaining more food production; and

(c) what is the future programme for the development of foodgrains production by use of atomic energy?

THE MINISTER OF STATE IN THE MINISTRIES OF AGRICULTURE AND RURAL DEVELOPMENT (SHRI R. V. SWAMINATHAN): (a) Research involving use of nuclear techniques was initiated at the Indian Agricultural Research Institute in 1955 with the establishment of a Radio-tracer Laboratory in the Division of Soil Science and Agricultural Chemistry. Subsequently, facilities for radio-isotopic research were also provided in the other Division of the Institute, including the commissioning of Gamma cell and a Gamma garden under the Division of botany. Further intensification of basic and applied research in the field of radio-isotopes was made possible when a UNDP Project came into existence in 1968 which resulted in the establishment of a Nuclear Research Laboratory at the Indian Agricultural Research Institute and the strengthening of facilities for research using nuclear energy at other centres as well viz. the Indian Veterinary Research Institute, Izat Nagar, (U.P.), the National Dairy Research Institute, Karnal (Haryana), and the Bhabha Atomic Research Centre, Bombay. The aim of the UNDP Project to bring about a high degree of interdisciplinary and inter-institutional collaboration so that this valuable tool of atomic energy could be effectively used to solve problems of pertinent to Indian agriculture, including animal husbandry.

(b) Using nuclear radiations, progress has been made in restructuring plant type to suit new cropping pattern, creating wider variability, rectification of some specific defects, induction of disease resistance, alteration in nutritional quality etc. The varieties

developed using these techniques are:—

Crop	Name of Varieties
Wheat	NI 5643, Safed Larma, Sarbati So 10ra DL 20-9, NP 836
Barley	DL 25-3, RDB-1, RD 103
Rice	Hb Mtu 95, GNM 6, GNM 20, GNM 25, GNM 31, Jagannath, BG 24, GRM 13, Culture No. 1.
Brassica	RIM 198
Jute	TJ-40
Groundnut	TG-1, TG-3, TG-17.
Castor	Aruna
Bajra	NHB-3, NHB-4, NHB-5.
French Bean	Pusa Parvati

Some of these varieties have given better performance in quantitative and qualitative terms and have become popular with the farmers.

(c) There is considerable scope in India, as in other countries, for the application of radiation techniques in evolving improved farm varieties of crop plants and in making more efficient use of various farm inputs such as chemical fertilizers and pesticides. Already in the country, improved varieties of groundnut and castor bean and a number of other crops have been released on the basis of work of this kind. The Government of India continues to give priority to research work in this area and a large number of research centres in the country will continue to take up research programmes in this field.

Locked up fund of Assam Co-operative Apex Bank in sick tea gardens

2858. SHRI ROBIN KAKATI: Will the Minister of AGRICULTURE be pleased to state:

(a) whether it is a fact that a large amount of money of Assam

Co-operative Apex Bank Ltd. is locked up in some sick tea gardens;

(b) if so, what are the reasons therefor and the total amount that is looked up and steps taken so far for its realisation;

(c) what was the allocation of funds by Assam Co-operative Apex Bank Limited for rural credit and for financing tea gardens for the year 1979-80, 1980-81 and 1981-82 respectively; and

(d) what was the allocation of money for rural credit by Reserve Bank of India to the Assam Co-operative Apex Bank Ltd. during the same period?

THE MINISTER OF STATE IN THE MINISTRIES OF AGRICULTURE AND RURAL DEVELOPMENT (SHRI R. V. SWAMINATHAN): (a) and (b) A total amount of Rs. 281 lakhs is outstanding since long against tea gardens financed by the Assam State Cooperative Bank Ltd. The main reasons for such long outstandings have been the un-economic functioning of the tea gardens and their mismanagement. Steps have been taken by the Bank for