

**Self dependency in production of foodgrains**

1967. SHRI T. RATHINAVEL: Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

(a) whether it is a fact that the conventional plant breeding has given the country very good sustainable agricultural production in major crops like rice and wheat;

(b) whether it is also a fact that farmers have quickly adopted good varieties which have better adaptation and yields; and

(c) whether it is also a fact that GM technology was the most viable option if India wanted to continue its self dependency in foodgrains in the scenario where crops face various kinds of stress?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FARMERS WELFARE (SHRI SUDARSHAN BHAGAT): (a) The National Agricultural Research System comprising Indian Council of Agricultural Research and State Agricultural Universities has developed a number of land mark varieties in crops like rice and wheat through conventional plant breeding which contributed significantly in making the country self-dependent in food grain production.

(b) Farmers quickly adopt semi-dwarf, non-lodging and high yielding varieties. Some of the landmark varieties which have been widely adopted by farmers are:

Wheat: HD 2329, WL 711, UP 2338, WH 542, PBW 343, HD 2967, HD 3086, etc.

Rice: IR-8, Jaya, Swarna, Pusa Basmati 1, Swarna Sub 1, Samba Mahsuri, MTU 1010, etc.

(c) The GM technology is one of the options for crop improvement programmes to develop stress tolerant crop varieties where limited success achieved through conventional breeding. Cutting edge biotechnological tools like marker assisted selection and development of transgenics are undertaken as supplementary approaches to augment the conventional approaches of breeding to accelerate the pace of varietal development and to develop climate resilient varieties to ensure the food security in long run.