

#### Discovery of new variety of paddy

966. SHRI A. ELAVARASAN: Will the Minister of AGRICULTURE be pleased to state:

(a) whether discovery of a new variety of paddy named Rajarajan 1000 has proved to be a great success in Tamil Nadu, almost doubling the average yield;

(b) whether the new method of cultivation was earlier known as system of rice intensification;

(c) if so, the details thereof;

(d) whether farmers received good yield of about 8 tonnes of paddy per hectare against 4 tonnes from other technique and also the yield comes about 15 days ahead of the usual period; and

(e) if so, the steps taken by Government to adopt this new variety of paddy in other parts of the country to meet the growing demand?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI HARISH RAWAT): (a) "Rajarajan 1000" is not a paddy variety, rather this is a system of paddy cultivation. In Tamil Nadu, this system of cultivation gives paddy yields between 6 t and 13 t per hectare as against an average yield of 4 t per hectare using conventional practices. However, this depends on several other factors such as variety of seed material, climate, soil type and source of irrigation.

(b) and (c) Yes, Sir. This method of paddy cultivation was earlier known as System of Rice Intensification (SRI). On 26.09.2010, Hon'ble Chief Minister of Tamil Nadu named this system as "Rajarajan 1000" to commemorate 1000 years celebration of Tanjore Temple constructed by Chola King Rajarajan. Components of this technology are:

- Adoption of 7.5 Kg seed rate per ha.
- Nursery area, 100 m<sup>2</sup> for 1 ha.
- Seedling age, 14 to 16 days.
- Transplanting single seedling at 25 cm x 25 cm spacing.
- Four times mechanical weeding at 10, 20, 30 & 40 days after transplanting.

- Alternate wetting and drying up to panicle initiation stage. It is recommended to irrigate the field to 2.5 cm after the previously irrigated water disappears and hairline cracks develop.
- Nutrient application based on soil testing.

(d) Farmers are getting increased yields under this system as compared to the conventional system. Nearly 30 percent of total System of Rice Intensification farmers are getting on an average yield of 8 tonnes per ha. Against 4 tonnes under normal system. There is no evidence about early maturity of paddy in this System of Rice Intensification.

(e) Government is providing subsidy to the farmers for organizing System of Rice Intensification demonstrations. The system is gaining popularity in several states of the country particularly Andhra Pradesh and Tripura.

#### Use of Endosulfan

967. SHRI D. RAJA: Will the Minister of AGRICULTURE be pleased to state:

(a) whether Government has any data on the adverse health-effects of the use of Endosulfan pesticide;

(b) if so, the details thereof; and

(c) the steps Government has taken to regulate and check the use of Endosulfan?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI ARUN YADAV): (a) to (c) Several Committees have reviewed effect of Endosulfan on human health and environment in Kasargod district of Kerala against the backdrop of its aerial spraying on cashew plantations. The National Institute of Occupational Health (NIOH), Ahmedabad submitted a report to the National Human Rights Commission in 2002 on epidemiological study of school children in Padre village of Kasargod district. The report concluded that there was a significantly higher prevalence of neuro-behavioral disorders, congenital malformation in female subjects and abnormalities related to male reproductive system in the study group and identified relatively high and continued exposure to Endosulfan as the most probable cause of health problems. It also concluded that physiography of Padre village had been a major factor responsible for continued exposure of the population. Various reports on Endosulfan, including NIOH report, were subsequently examined by two expert