THE HINDU

Record Break:Continuing success of precision farming in Tamil Nadu

Mr. Chinnasamy of Tamil Nadu with his harvested brinjals

New innovations and technologies for increasing crop yield have mostly been the fort of agricultural scientists and researchers. Precision Farming Technology is one such innovationthat has been introduced for the first time in the country by scientists from the Tamil Nadu Agricultural University (TNAU), Coimbatore. Precision farming promises to increase the yield of crops, and practically any crop variety can be cultivated under this system.

Very popular
Presently this project is meeting with large success in many districts of Tamil Nadu. Those farmers, already under this project, have surrendered their success in terms of yield and marketing to this technology.Unlike certain other technologies which teach or guide the farmer to grow his cropsbut leave himto market hisown produce, precision technology scientists stay with the farmers right from sowing the seeds to marketing the produce.

Marketing made easy
The research team identifies prospective buyers in and around the area andbinds the farmer and the buyer in a sort of contract agreement, and oversees the entire operation. Mr. P.M. Chinnasamy is one such precision farmer from Somenahalli village who has earned more than Rs. 5 lakh from his brinjal crop grown in 120 cents in about 11 months.

“A progressive farmer can get only 60 tonnes per hectare whereas Mr. Chinnasamy has harvested about 170 tonnes in 120 cents, which is quite a feat. “It is 467 per cent higher than the conventional system of cultivation,” said Dr. Vadivel, Director of Extension Education, and TNAU. Giving details he said, the seeds were sown in protrays raised under shade net and transplanted on the 35th day after sowing.

Field preparation
The field was prepared by using chisel plough first, followed by disc and cultivatorsfour times. Before last

ploughing, a basal dose of 700 kg of super phosphate, 25 tonnes offarmyard manure along with Azospirillum and Phosphobacteria each at 2 kg per hectare was applied.
Raised beds of 60 cm width were formed and the seedlings planted on the centre of the raised beds at a spacing of 45 cm.

Wastage avoided
Under the conventional system 23,000 plants are required for planting.But, forprecision farming system, only 14,500 plants are required. Fertilizers were given only through fertigation, which avoids wastage through flood irrigation. All water soluble fertilizers were applied based on the time and the stage of the crop.
The plant growth was found to be good,and thiscontinued till the last harvest. Due to the continuous growth and flowering, harvesting was done once in two days. The flowering is mainly due to continuous supply of fertigation and constant absorption of nutrients.

Extended crop life
Brinjal is a six month crop but under precision farming the duration can be extended up to one year. It is an advantage over the traditional system since the extension of harvest increases the productivity, according to Dr. I. Muthuvel, Assistant Professor, Horticulture of the University. The main pests were fruit borer that was controlled effectively spraying monocrotophos or chloripyriphos at 2 ml per litre of water, and in later stages Indoxacarb at 0.5 ml per litre of water, according to Dr. Muthuvel.

Attractive fruits
Diseases such as blight and fruit rot were controlled by spraying mancozeb at 2 ml per litre of water. The fruits are quite attractive and the shelf life is more compared to that grown under conventional system. Mr. Chinnasamy has so far harvested 170 tonnes and has sold them for Rs. 5 -15 a kg.

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