

Drip fertigation boosts yield in banana cultivation



Mr. Venkatesan, banana farmer of Dharmapuri having a look at his crop, which is ready for harvest.

Research at the Tamil Nadu Agricultural University (TNAU), Coimbatore, have implemented state sponsored precision farming through drip fertigation project in Krishnagiri and Dharmapuri districts of Tamil Nadu. The project costs Rs.10 crore and covers about 400 hectares in the districts. This project is a boon to all farmers in these two districts who have been cultivating vegetables such as tomato, bhendi and cavendish banana varieties.

Equal weight

All the crops attain uniform height and fruits and vegetables attain equal weight when grown under fertigation system (application of water soluble fertilizer through drip irrigation), according to Dr. I. Muthuvel, Assistant Project Officer, Tamil Nadu Precision Farming Project, Dharmapuri.

The technology, in addition to conserving water, has also helped in good growth of the crops, according to Mr. M. Venkatesan, a beneficiary farmer in the district who is at present cultivating G-9 cavendish banana variety in his one hectare land. About 25 hectares are at present under banana cultivation in Dharmapuri district, according to Dr. Muthuvel.

Saving water

"Precision farming has helped me obtain uniform banana bunches with even ripening and saved as much as 50 per cent water compared with the conventional system where water was allowed to flow in furrows

in the fields," said Mr. Venkatesan. Giving details on field preparation, Mr. Venkatesan said, about 2 kg of super phosphate, 200 gm of gypsum, 20 gm of furidon and 5 kg of farmyard manure were applied to the field and ploughed well. Raised beds of about one foot in height were prepared. Cubical pits of about 2 cubic feet were dug on the raised beds and the suckers were placed inside the pit and covered with soil and watered immediately. Fertigation was done once every five days. About 3,000 suckers are needed for planting in one hectare, according to Mr. Venkatesan.

After two months of planting, emerging side suckers were manually removed. Side suckers have to be removed as and when noticed. Only one side sucker can be allowed to grow in the eighth month and the rest removed, explained Dr. Muthuvel. In the seventh month, stakes were tied to the trees to prevent them from falling due to heavy wind or rains. The variety was found susceptible to erwina rot infestation. Drenching the base of the plant with about 1 gm emisan solution diluted in a litre of water was found effective in controlling this infestation.

Yield statistics

The first bunch of fruits appear sometime during the eighth month after planting. During this time it is advisable for farmers to spray polyfeed over the fruit bunches to obtain uniform weight and growth. About 100 tonnes of fruits were harvested in the eleventh month after planting and sold at Rs. 8,000 per tonne. "I expect to harvest the first ratoon crop in the 21st month and the second in the 30th month," said Venkatesan. The main advantage of using fertigation technique according to Dr. Muthuvel, is that "all the bunches from the three crops will be almost uniform in size and weight."

Irrigation cost

Bunches from the planted crop weighed 30-32 kg each. The cost of the drip system worked out to about Rs.1.15 lakh per hectare. "I had purchased the suckers at a cost of Rs. 11 per sucker and have spent about Rs.1 lakh towards cultivation expenses," said Mr. Venkatesan.

Contact details : Mr. Venkatesan can be contacted at Poduthampatti Post, Kuddampatti village, Somanahalli, Palacode Taluka, Dharmapuri district, Tamil Nadu.

Source: web.thehindu@thehindu.co.in Copyright © 2010, The Hindu