

Precision Farming Technology At Madurai

The villages belong to Checkanurani block of Madurai district located 20 km away from KVK headquarters. Nearly 60 % of the cultivated land are irrigated through canal and well water. The main crops of the block are vegetables like brinjal, chilli, tomato, and other crops *viz.*, banana, cotton and maize etc. But the yields of these crops are very low and no uniformity was noticed in the products harvested. The cost of cultivation was also high due to high intake of water, fertilizer and huge labour requirement.

To find out the technological adoptions and to identify the thrust areas for the agricultural development, interactions were made with the farmers by the KVK staff. It was found that the farmers were unable to get higher yield due to poor management practices and low market value.

Though the farmers faced many problems and when the KVK staff approached them they were hesitant to implement the high-tech precision farming practices in their field. None of them were interested to implement this project. After frequent visits and interaction, about 20 farmers from Checkanurani block of Madurai district agreed to involve in precision farming. It was noticed that implementation of Precision farming in vegetables and banana, training as well as exposure visit on precision farming were the need of the village for profitable cultivation of vegetables and banana.

The interested farmers were given on campus as well as off campus training through video show and power point presentations with special emphasis on precision farming components like drip irrigation, fertigation, economic use of irrigation water, way to produce quality products. The farmers were also motivated to visit and interact with farmers who have successfully adopted precision farming technology.

In the year 2007, KVK adopted this block for its intensive activities of transfer of technologies related to agriculture for increasing agricultural production and thereby raising standard of living of farmers.

The Precision Farming technology was successfully implemented by farmers and the Precision Farming Association was registered as society in 20 ha in the year 2007-08 in Madurai District which was inaugurated by the District collector Th. S.S. Jawahar I.A.S in Chekkanurani as first phase programme. Under this technology, beneficiary farmers enjoyed 50% subsidy towards cultivation cost, drip and fertigation unit. All technical supports were provided to the farmers through KVK Scientists and Experts.

Presently this technology has been implemented with great success in Madurai district. Now the farmers are getting high yield / unit area by harvesting large sized uniform good quality products which fetches higher price with good demand in the market. The efficient utilization of water and fertilizer resulted in better growth and higher yield. The cost of cultivation was also less due to reduced weeding and labour requirement.

With the help of the Precision Farming Farmers Association, the farmers easily marketed their products in all markets due the uniformity in size and quality. The farmers enjoyed the benefit of quick and easy purchase of inputs with subsidy.

By adoption of this technology, one such beneficiary farmer among the society **Th. Mitcharaja**, has earned Rs. 4.0 lakhs from his 1.25 acres of brinjal during this year 2007-08 and he got Best farmer Award ' **Velanmai Semmal**' from the Honorable minister for agriculture during TN State level Farmers Day at TNAU, Coimbatore.

In continuation, the Precision Farming technology was further implemented under National Agriculture Development Programme at the cost of Rs 16.0 lakhs during this year 2008-09 in Chekkanurani block of Madurai district. **Th. Kurumban** of Poochampatti village received the **Best farmer** award from Secretary, DARE and Director General, ICAR, New Delhi.(2009) for earning Rs.1.25 lakhs/acre by cultivating tomato in 1 acre.

After seeing the successful functioning of the Precision farming technology the neighbouring farmers who hesitated initially are interested to implement the precision farming project in their field.

Conclusion

Precision farming is a full-fledged technology which not only promises higher yields but also helps in reducing water use, reduces residues in soil, water and food. In addition it plays a definite role in the prevention of environmental imbalances. The knowledge level of the farmers regarding precision farming in vegetables and banana has improved. This was possible through the proper guidance of KVK scientists, their demonstration and constant follow up.

SUCCESS STORIES

2007- 08: 20 ha

2008 - 09 :20 ha

Crop: Brinjal hybrid – Mahyco 11



Farmer	Th. Mitcharaja
Village	Nadumuthalaikulam
Area	1 .25 acre
Yield	80 tonnes /acre (25 t/ac)
Income	5 lakhs/acre

generated	
Award	Vellanmai chemmal award from Honorable Agriculture minister (2008)

Crop: Tomato hybrid – US 618



Farmer	Th. Kurumban
Village	Poochampatti
Area	3.5 acres
Yield	30 tonnes / acre (18 t/ac)
Income generated	1.25 lakhs / acre
Award	Best farmer award from Secretary, DARE and Director General, ICAR, New Delhi (2009)