

Case Study – On farm production of Bio Inputs by farmers group

ICAR – Krishi Vigyan Kendra, MYRADA in coordination with National Institute of Plant Health Management (NIPHM), and Hyderabad have conducted demonstration on Ecological Engineering for Pest Management in Paddy Ecosystem covering 50 farmers of Kallipatti in T.N. Palayam Block and Andipalayam in Bhavani Block of Erode District in the year 2014 - 15. As part of demonstration, training on production of bio-inoculants, predators, parasitoids and spiders have organized in the respective villages. The effort resulted in establishment of on farm production of bio-inputs by the farmers club in their region.

Cropping System in Andipalayam area:

Paddy is cultivated in area of 50 ha, Banana 40 ha, Sugarcane 60 ha and Turmeric 30 ha and they are having border crops coconut plantation. Total area under cultivation is 180 ha. In these crops, pests and disease occurred are blast in Paddy, leaf spot in Banana and Turmeric, Rhizome Rot in turmeric and Smut in Sugarcane. The non-availability of quality bio-inoculants in their area made yield loss and increase in the cost of cultivation in every season of cropping. Through the intervention of ICAR KVK MYRADA, Erode District have able to learn the techniques of “on farm production of bio-inoculants” have made them to start the bio control laboratory to serve the farming community on self-help basis.

In order to enhance their knowledge and skills on bio input production, a group of 30 farmers from *Pasumai Ulavar Mandaram* of Andipalayam village had exposed to NIPHM, Hyderabad during March 2015 and learned the production technology of the bio-inoculants, followed to this 2 persons identified once again to NIPHM Hyderabad, during May 2015 to get expertise in the production aspects.



The farmers group *Pasumai Ulavar Mandaram* at Andipalayam village had established the decentralized bio-input production laboratory in the year 2015 and producing the bio inoculants like *Pseudomonas fluorescens* and *Trichoderma viride* for the benefit of the farming community in their region



Production of Bio inoculants:

Type of Bio inoculants	Quantity of Bio inputs Production		No. of farmers benefitted	% of Yield increase in crop production		Area covered (ha)
	2015-16	2016-17		Crop	% of yield increase	
<i>Pseudomonas florescence</i>	350 litre	550 litre	92	Sugarcane Banana Turmeric	28% 40% 36%	146.5 h
<i>Trichoderma viride</i>	400 litres	600 litre	133	Turmeric Sugarcane Banana	37% 30% 38%	

Economics of Production:

Sl. No.	Bio inoculants	Quantity	Gross cost (Rs.)	Gross Return (Rs.)	Net Return (Rs.)
1.	<i>Pseudomonas florescence</i>	900 litres	63,000.00	90,000.00	27,000.00
2.	<i>Trichoderma viride</i>	1000 litres	70,000.00	1,00,000.00	30,000.00

Impact:

- Quality input and easily accessible to the farmers
- Reduction in the cost of input in crop production due to non-application of chemical pesticide / fungicide
- Additional income to the farmer group by production of bio-inoculants in their farm level
- Knowledge improvement on Bio input production technology at farm level by the farmers

The farmers group has good linkages with ICAR-KVK MYRADA, NABARD, Pondicherry KVK, TNAU and Department of Agriculture and Horticulture Erode. With regard to quality checkup, the liquid broth has been tested in Pondicherry KVK on every batch of Production from the unit to ensure its quality.
