I J T A
© Serials Publications
National Academy of Agricultural Science (NAAS) Rating : 3. 03

Impact of Front Line Demonstration on Beneficiaries of Krishi Vigyan Kendra in West Godavari District

M. Venkata Krishnaji[*] and R. Praveen Babu[**]

ABSTRACT: *The study was conducted in West Godavari district of Andhra Pradesh during the year 2014-2015 to study the impact of front line demonstrations on knowledge and adoption level of IPM practices by the paddy farmers. More than fifty per cent farmers in adopted village had high knowledge and adoption levels , whereas majority of the farmers from non adopted village were found in low knowledge group and seventy per cent of them were in low adoption category . further it was also observed that knowledge exhibited positive and significant relationship with adoption level of paddy farmers on IPM practices. the major constraints faced by respondents are lack of availability of neem based pesticides and poor quality of inputs.*

INTRODUCTION

First line demonstration is the new concept of field demonstration evolved by the Indian Council of Agricultural Research with the inception of the Technology mission on oilseed crops during mid eighties. The basic concept of demonstration is "seeing and believing". This is the most powerful instrument to motivate and convince the farmers to adopt the innovation beneficial is them. It is a way of showing farmers the worth of an improved practice over existing ones. When farmers are to show how to carry out an entirely new practice or an old practice in a better way, the demonstration is very efficient tool. The KVK organize front line demonstrations (FLDs) which aim at demonstrating the production potentialities of newly released and pre- released production technologies of Cereals, Pulses and Oilseeds on farmer's fields. These are called front line demonstrations because the technologies are demonstrated for the first time before being fed into the main extension system. The KVK has also been given the responsibility of conducting at least some good integrated farming system demonstrations which would serve as model for extension agencies. From the FLD, it is possible to generate some data related to factors contributing to higher yield and also constraints of production under various farming situations Field day is conducted at the demonstration field when the crop is at maturity stage and interaction between the scientists, farmers andextension functionaries takes place at the spot itself. The crop is harvested in the presence of the interested group of farmers which helps to visualize the importance of new technology easily and effectively. Very few studies are conducted in the country to know the impact of FLDs therefore, the present investigation was carried.KVK Undi was therefore undertaken FLD on integrated pest management in paddy crop for three years (2011-12 to 2013-2014) in farmers field in four different mandals of west Godavari district.

The findings with respect to the level of knowledge and adoption regarding the recommended IPM package of practices by the paddy farmers would focus light on the knowledge gap and non adoption of IPM practices of the paddy crop.. further the constraints of paddy farmers in adoption of recommended IPM technologies could also be brought to surface which would enable the researchers in planning appropriate strategies to promote IPM among the paddy farmers. keeping in view an attempt was made to assess the farmers

[*] Scientist KVK Darisi
[**] Ph.D Scholar

knowledge and adoption level with respect to IPM technology in paddy with the following objectives

1. To assess the farmers knowledge level in adopted and non adopted villages with respect to IPM practices in paddy.
2. To study the overall adoption of paddy farmers in adopted and non adopted villages regarding IPM practices
3. To elicit the constraints faced by FLD paddy farmers in adoption of IPM practices

MATERIAL AND METHODS

The present investigation was carried in 6 villages of Undi, Akiveedu and Bhimavaram mandals of west Godavari district dur-ing 2014-2015. A sample of 120 respondents was taken com-prising 60 beneficiary and 60 non-beneficiary farmers For selection of beneficiary farmers a list of farmers where FLDs were conducted during preceding four years was prepared and for taking the equal representation, ten beneficiary farm-ers from each one of the selected 6 villages making 60 ben-eficiary respondents were selected randomly. For the other half of the sample (60 non-beneficiary farmers), 60 farmers were selected randomly from the locality adjacent to KVK Undi where FLDs were not conducted by any organiza-tions. An Ex-post facto design was adopted for the study. The data were collected through personal interview with the help of pre-tested schedule The collected data were pro-cessed, tabulated, classified and analysed in terms of mean, percent scores, ranks, etc. in the light of objectives of the study.

Knowledge was operationilized as the amount of information and understanding possessed by the paddy farmers about IPM practices. knowledge of the paddy farmers was tested against eighteen items related to IPM practices. Adoption was operationilized for the purpose of investigation as practicing the recommended IPM practices by the paddy farmers. IPM package of practices recommended by ANGRAU that were demonstrated by KVK Undi were included in the study to assess the knowledge and extent of adoption. Respondents were classified into three categories *i.e.* low, medium and high based on their knowledge and adoption scores using mean and standard deviation as a measure of check.

The overall knowledge scores presented in the Table 1 reveals that more than fifty per cent of the demonstration farmers possessed high (53.33%) overall knowledge level and the remaining farmers possessed medium (35.00%) and low (11.66%) knowledge levels regarding the IPM practices of the paddy. while fifty per cent of the non FLD farmers were found to be in low knowledge category followed by forty per cent in medium and 10 per cent in high knowledge categories.

Table 1
Overall knowledge level of paddy farmers on recommended IPM practices

Knowledge category	*FLD farmers (N = 60)*		*Non-FLD farmers (N = 60)*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Low	7	11.66	30	50
Medium	21	35.00	24	40
High	32	53.33	6	10

These knowledge levels reveal that the FLD and trainings organised by the KVK had created impact in terms of farmers knowledge levels when compared to paddy farmers in similar situation from non adopted village. the present findings are in conformity with findings of namdev *et al.*

Table 2
Overall adoption level of paddy farmers on recommended IPM practices

Adoption category	*FLD farmers (N=60)*		*Non-FLD farmers (N = 60)*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Low	9	15	34	56.67
Medium	19	31.67	15	25
High	32	53.33	11	18.33

Table 2 revealed the categorization of respondents based on their adoption score on IPM technologies. the findings indicated that more than 53.33 per cent of the paddy farmers were grouped in high adoption level of IPM package of practices where as remaining farmers were distributed in medium (31.67%) and low (15.00%) categories of adoption level. the adoption levels from the non FLD revealed that great majority of the farmers had low adoption levels (56.67%) followed by medium (25%) and high (18.33%) categories. this trend of paddy farmers in the adopted villages of KVK mainly due to the awareness about recommended IPM technologies. the trainings and demonstrations organised in farmers fields, farmers knowledge gain on IPM in paddy, feasibility and profitability of IPM technology spread by KVK in adopted villages might have influenced the majority of the paddy farmers to adopt recommended IPM package of practices

Table 3
Relationship between knowledge and adoption level of paddy farmers on IPM practices

Character	*Karl Pearson 'r' value*
Knowledge	0.82*

(*n* = 120)

It is connoted from the table 3 that knowledge exhibited significant relationship with the adoption level of the paddy farmers on IPM practices as the knowledge on the consequences of the innovation developed due to their exposure to IPM technology increases , the adoption level also increases. this is quite relevant since higher level of knowledge due to continuous guidance provided by KVK scientists on scientific lines generally enhances the scientific and analytical ability of farmers towards IPM technology and more so with the adoption of IPM in paddy.

Table 4
Constraints of paddy farmers in adopting recommended IPM practices

S. No.	*Constraints*	*(n = 120)*	
		Frequency	*Percent*
1.	Non availability of neem based pesticides	106	88.33
2.	Poor quality of inputs	99	82.50
3.	Occurrence of more than one pest	68	57.00
4.	Non availability of pheromone lures locally	103	85.83
5.	Difficult to remember ETL	84	70.00
6.	Difficulty to remember scouting methods	89	74.16
7.	Lack of knowledge to identify predators	73	61.00
8.	High cost of cultivation due to adoption of IPM	80	66.67
9.	Difficulty to implement biological method	57	48.00
10.	Lack of knowledge to identify predators	73	60.83

It can be inferred from the table 4 that the great majority of the paddy farmers expressed non availability of the neem based pesticides (88.33%) and non availability of the pheromone lures locally (85.83%), more than three fourths of the paddy farmers expressed that poor quality of the inputs (82.50%) followed by Difficulty to remember scouting methods (74.16%) and Difficult to remember ETL (70.00%) as the main constraints. the other constraints quoted by the respondents are high cost of cultivation due to adoption of IPM technologies (66.67%), Lack of knowledge to identify predators (60.83%) followed by occurrence of more than one pest (57.00%) and difficulty to implement biological method of control (48.00%) these findings are in conformity with the findings of Manoj and Vijayaragahavan (2014). the constraints expressed by the paddy farmers indicate there is urgent need for the intervention of the agricultural department to provide quality assurance of the inputs and to check the unscrupulous activities by the input dealers, provide the availability bio pesticides locally and formulate an easy method for remembering the ETL and identifying the predators

The present study revealed that there was a considerable variation in knowledge and adoption levels of paddy farmers in adopted and non adopted villages. So there is a need for organisation of educational activities using combination of extension methods like trainings and front line demonstrations in an intensive manner to make them aware of benefits of IPM and further adopting the recommended IPM practices. as a significant and positiverelationship was found between the knowledge and adoption levels. state agriculture and other extension agencies should strive to improve the knowledge level of paddy farmers through mass media by organising exposure visits to the IPM successful villages besides providing required inputs in the local areas. so as to enlist higher adoption rates of IPM in paddy that further leads to reduced costs ,enhanced production and productivity.

REFERENCES

Govind Prasad Namdev, Ashutosh Shrivastava and PK Awasthi (2011), Constraints and Opportunity for Organic Paddy Production in Jabalpur District Of Madhya Pradesh *Indian Journal of Fundamental and Applied Life Sciences*1 (3): 141-145.

Sriharinarayana, sailaja, satyagopal, prasad SV and Hrudaya Ranjan (2013), Relationship of profile characteristics of rice farmers with their constraints in rice production in Nellore district of Andhra Pradesh *international journal of scientific research* **2**(2): 7-9.

N.V. Kumbhare and K. Singh (2011), Adoption Behaviour and Constraints in Wheat and Paddy Production Technologies Indian Research Jouranl of Extension Education **11**(3): 41-44.

A.K. Rai, S. Khajuria and Kanak Lata (2014), Impact of Front Line Demonstrations in Transfer of Sesamum Production Technology *Gujarat journal of extension education* **25**(2): 145-148.

❍❍❍