



Impact of Krishi Vigyan Kendra on Farmer's Yield and Income in Srikakulam District of Andhra Pradesh

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ABSTRACT

An evaluation study of Krishi Vigyan Kendra (KVK) of State Agricultural University was undertaken with the objective of investigating the impact of KVK on farmers. Data were collected from 40 adopted and 40 non-adopted village farmers. The study revealed that in adopted villages, the KVK had a positive impact on increase in yield and income as compare to non-adopted villages.

Key words: Adopted, Income, Impact, KVK, Non- adopted villages, Yield.

The present growth rate of population in India demands production of additional 5-6 million tonnes of food grows every year for ensuring food security at the household level. This is a major challenge for the policy makers, planners, administrators, agricultural scientists and extension workers of the country. It calls for the reassessment of the existing roles, mission and strategies related to technology generation, technology assessment and refinement and dissemination in the field of agriculture and allied sectors. Considering the major challenges in agriculture including the need for enhanced productivity and profitability there is a need for greater thrust for technology dissemination without any transmission loss. To increase the food production at the rate of at least three per cent per year the efforts of government organizations alone is not sufficient. To pursue this challenge, the Indian Council of Agricultural Research (ICAR), launched Krishi Vigyan Kendra (KVK) as an innovative project for testing and transfer of Agricultural technologies to increase production, productivity and farm income of the farming communities with the help of a multidisciplinary team.

Since inception, the KVK has been playing an important role in empowering the farmers in different parts of the country. To find out the success of any programme a periodical appraisal and evaluation of what is being done is essential, so that suitable changes can be made to make the programme more effective. Keeping this in view, the present study was undertaken with the objective of assessing the impact of KVK on farmer's yield and income in Srikakulam district of Andhra Pradesh.

MATERIAL AND METHODS

The present study was undertaken in Srikakulam district of Andhra Pradesh during 2006-2008 by adopting ex-post-facto research design in purposively selected four villages namely Chimalavalasa & Divanjipeta (adopted villages), Vanjarampeta & Guyyanavalasa (non-adopted villages), two each from the purposively selected two mandals namely Amadalavalasa and Rajam out of 37 mandals in Srikakulam district of Andhra Pradesh. A total of 80 farmers were selected with equal proportions *i.e.* 40 farmers from adopted villages and 40 farmers from non-adopted villages. Data were collected through a well structured interview schedule. The collected data were coded, classified and tabulated. Finally, the statistical tests like 'Z' test, mean, standard deviation, frequency, percentage, were used for meaningful findings and for drawing conclusions.

RESULTS AND DISCUSSION

1. Increase in yield

Yield scores of the respondents were computed and their distribution under 3 different categories is given in following Table 1. As revealed from the Table 1, majority (52.50%) of the respondents of adopted villages were getting low yield followed by medium (32.50%) and high (15.00%) yields before involvement of KVK, whereas, the situation was completely reversed after involvement of KVK that the majority (42.50%) of the respondents were getting high yield followed by medium (40.00%) and low (17.50%) yields. It can be observed that there was an increase in number

Table 1. Distribution of the respondents of adopted and non-adopted villages according to their rice crop yield in q/ha

Category	Adopted villages				Non-adopted villages			
	Before involvement of KVK (During 2003-2004)		After involvement of KVK (During 2007-2008)		During 2003-2004		During 2007-2008	
	F	%	F	%	F	%	F	%
Low (<15)	21	52.50	7	17.50	15	37.50	14	35.00
Medium (15-25)	13	32.50	16	40.00	20	50.00	19	47.50
High (>25)	6	15.00	17	42.50	5	12.50	7	17.50
\bar{X}								
σ	2.70		5.05	2.82			2.85	
'Z' Value	0.91		1.15	0.84			0.75	
		10.68**			0.14NS			

F = frequency, ** = 1% level of significance, NS= Non Significant

Table 2. Distribution of the respondents of adopted and non-adopted villages according to their income

Category	Adopted villages				Non-adopted villages			
	Before involvement of KVK (During 2003-2004)		After involvement of KVK (During 2007-2008)		During 2003-2004		During 2007-2008	
	F	%	F	%	F	%	F	%
Low (<Rs 25,000)	24	60.00	6	15.00	17	42.50	16	40.00
Medium (Rs 25,000-50,000)	11	27.50	18	45.00	16	40.00	17	42.50
High (>Rs 50,000)	5	12.50	16	40.00	7	17.50	7	17.50
\bar{X}	2.275		5.025		2.625		2.7	
σ	0.960		2.060		1.004		0.911	
'Z' Value		7.8**			0.37 NS			

F = frequency, ** = 1% level of significance, NS= Non Significant

of farmers in high and medium yield category with less number of farmers in low yield category showing the transformation of farmers from low to higher levels within few years in the study area.

Calculated 'Z' value (10.68) was found to be significant at 0.01 level of probability. Therefore, null hypothesis was rejected and empirical or research hypothesis was accepted. Therefore, the findings indicated that there was a significant gain in the yield of adopted village farmers after involvement of KVK as compared to before. It also showed that the KVK has greater potential for increasing the productivity of different crops in that region.

In case of non-adopted villages, it could be clearly showed that majority (50.00%) of the respondents were getting medium yield followed by low (37.50%) and high (12.50%) yields during 2003-2004, and the situation was not changed in non-adopted villages farmers even after 2007-2008 that the majority (47.50%) of the respondents were getting medium yields followed by low (35.00%) and high (17.50%) yields.

Calculated 'Z' value (0.14) was found to be non-significant at 0.05 level of probability. Therefore, null hypothesis was accepted and empirical or research hypothesis was rejected. It can be inferred that there was no significant gain in the yield of farmers of non-adopted villages during 2007-2008 as compared with the yields during 2003-2004.

It can be examined from the results that the registered yield levels in adopted villages of KVK during 2007-2008 were much better than the yield levels in non-adopted villages. As it is known that yield can be increased to a great extent by substituting the improved varieties in place of local varieties. Therefore, the KVK conducts regular experiments on farmer's fields to test the superiority of the improved varieties over local varieties, which can motivate the farmers to put small investment on improved seed to get an incremental yield over local varieties. Thus the above findings clearly revealed the definite impact of KVK on farmers with respect of increase in yield in the adopted village over non-adopted villages. These findings are in conformity with the findings of Hegde *et al.*, (2004) and Raja Ratnam (2000).

2. Increase in income

Income scores of the respondents were computed and their distribution under 3 different categories is given in following Table 2.

It was evident from the table that majority (60.00%) of the respondents in adopted villages had

low level of income followed by medium (27.50%) and high (12.50%) level of income before involvement of KVK, whereas their income levels were increased after involvement of KVK as the majority of the respondents were having medium (45.00%) level of income followed by high (40.00%) and low (15.00%) level of income. The findings clearly highlighting the changes in increasing the income of farmers after knowing KVK.

Calculated 'Z' value (7.8) found to be significant at 0.01 level of probability. Therefore, null hypothesis was rejected and empirical hypothesis was accepted. Thus it is obvious that there was a significant difference in the income levels of farmers between before and after involvement of KVK.

In case of non-adopted villages, it could be observed that majority (42.50%) of the respondents had low level of income followed by medium (40.00%) and high (17.50%) levels of income during 2003-2004, Whereas, after 2007-2008, there was a little change in the number of farmers in medium (42.50%) and low (40.00%) yield categories but in case of the category of high yield the same trend (17.00%) was continuing as similar to past.

Calculated 'Z' value (0.37) also found to be non-significant at 0.05 level of probability. Therefore, null hypothesis was accepted and empirical hypothesis was rejected. It can be inferred that there was no significant difference in increase the income of farmers in non-adopted villages during 2007-2008 when compare with 2003-2004.

The above findings revealed the efficiency of KVK in generating the significant additional income of farm families of adopted villages as comparing the non-adopted village farmers during the same period. The reason might be the high level of technical guidance for creating awareness about the seed treatment, seeding technique, balance fertilization, weed control practices and timely adoption of plant protection measures etc., which can reduce the cost of cultivation and leads to higher farm income and it is considered as a low cost option for the benefit of the resource poor farmers. These findings tally with those of Prasad *et al.*, (2004) and Nirmala & Hiremath (2005).

Conclusion

An overview of the results, it could be concluded that yield and income levels of farmers of adopted villages were recorded quite high compared to farmers of non-adopted villages. Mainly the yield level of crops was increased among KVK farmers due to use of high yielding varieties and other agronomical practices with prior support from KVK

scientists, and too participation in pre-seasonal and on or off-campus training programmes, besides regular farm advisory and follow-up services given by KVK, which pave the way for receiving higher yields followed by better income. Inturn this has showed the overall impact of KVK on farmers.

LITERATURE CITED

Hegde M R, Dattatri K, Sudakar N, Mahadeva Reddy K and Rajender Reddy G 2004 Role and impact of Krishi Vigyan Kendra in watershed development. *Indian Journal of Dryland Agricultural Research & Development*, Vol. 19 (2):106-212.

Nirmala B and Hiremath G K 2005 Impact of watershed programme on the economy of the farm households in Andhra Pradesh. *MANAGE Extension Research Review*, Vol. 6(1): 19-33.

Prasad M J, Padmanabhan M V, Nimbole N N and Reddy Y V R 2004 Role of transfer of technology in Dryland Agriculture. *Indian Journal of Dryland Agriculture*, Vol. 19(1): 64-67.

Raja Ratnam T 2000 Impact of sunflower On-farm Extension Demonstrations (OFEDs) in Kurnool district of Andhra Pradesh. M.Sc (Ag.) Thesis, Acharya N.G. Ranga Agricultural University, Hyderabad.

(Received on 30.09.2011 and revised on 14.12.2011)