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# Impact of KVK on Farmer's Knowledge and Adoption of Rice Production Technology

**Key words :** KVK, knowledge, Adoption, Rice production technology

The progress and prosperity of a nation to a very great extent depends on how far its agriculture sector is advanced and modernized. Adoption of improved and up-to-date agricultural technologies by the majority of agriculturists is a pre-requisite to agricultural development in the developing countries like India where the economy is mainly based on agricultural sector. It is known that 'the fundamental problem of agricultural growth is of education'. There is a need of education for the rural development in general and agricultural development in particular. Since independence, the Government of India (GOI) has been implementing various programmes for improving the economic conditions of the farm people through different means. In the year 1974, ICAR launched Krishi Vigyan Kendra (KVK) as a non-formal education institute to play a definite role at district level to prove their worthiness by imparting the latest knowledge through application of science and technology input on the farmers' field. Therefore, it is advised to study the impact of the KVK with the objective of finding out the level of knowledge and adoption of farmers in rice cultivation in Srikakulam district of Andhra Pradesh.

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. The statistical tests like 'Z' test, mean, standard deviation, frequency and percentage were used for meaningful findings and for drawing conclusions.

For measuring farmer's knowledge, nine items related to rice cultivation were used with a given score of 2 and 1 for right and wrong answer respectively. The maximum and minimum score of each respondent was 18 and 9, respectively. By adding the scores of all the items, the individual total score was worked out. Then, the respondents were categorized into low medium and high groups based on the mean and standard deviation.

Whereas, for adoption, ten items pertaining to the rice production technologies were selected with a given score of 3, 2 and 1 for full adoption, partial adoption and non- adoption and the maximum and minimum score of each respondent was 30 and 10 respectively. After adding the scores of all the items, the above procedure similar to knowledge was applied.

From the Table, it is obvious that majority (57.50%) of the farmers of adopted villages had medium level knowledge followed by high (32.50%) and low (10.00%) levels of knowledge. Whereas, in case of non-adopted villages, majority (60.00%) of the respondents had low level of knowledge followed by medium (25.00%) and high (15.00%) levels of knowledge about the rice crop.

Calculated 'Z' value (17.35) found to be significant at 0.01 level of probability. Therefore, null hypothesis was rejected and empirical hypothesis was accepted. It can be inferred that there was a significant change in the knowledge of farmers in the adopted villages after involvement of KVK when compared with the farmers of non-adopted villages as evident from their higher mean value (16.12). This result indicated that KVK has created a significant impact on change in knowledge.

On the basis of these observations, it is resulted that the knowledge level of the farmers of adopted villages was higher than the farmers of non-adopted villages. It might be due to difference in the availability of source of information as the scientists were always available to the farmers of adopted villages. This could be the reason for the significant difference between the farmers of adopted and non-adopted villages regarding change in knowledge. This finding was in agreement with the results of Raja (2004) and Prashanthkumar (2007).

A perusal of Table 1 clearly indicates that majority (62.50%) of the farmers of adopted villages had medium level adoption followed by high (27.50%) and low (10.00%) levels of adoption. Whereas, in

Table 1. Distribution of the respondents according to their knowledge.

| S.No | Category | Adopted villages (n= 40) | | Non-adopted villages (n= 40) | | Difference ('Z' value) |
|---|---|---|---|---|---|---|
| | | Frequency | Percentage | Frequency | Percentage | |
| 1 | Low | 4 | 10.00 | 24 | 60.00 | |
| 2 | Medium | 23 | 57.50 | 10 | 25.00 | 17.35** |
| 3 | High | 13 | 32.50 | 6 | 15.00 | |
| | | $\overline{X}$ =16.12 | $\sigma$= 1.604 | $\overline{X}$ = 12.65 | $\sigma$= 1.001 | |

** = 1% level of significance

Table 2. Distribution of the respondents according to their adoption.

| S.No | Category | Adopted villages (n= 40) | | Non-adopted villages (n= 40) | | Difference ('Z' value) |
|---|---|---|---|---|---|---|
| | | Frequency | Percentage | Frequency | Percentage | |
| 1 | Low | 4 | 10.00 | 25 | 62.50 | |
| 2 | Medium | 25 | 62.50 | 9 | 22.50 | 8.5** |
| 3 | High | 11 | 27.50 | 6 | 15.00 | |
| | | $\overline{X}$ =16.4 | $\sigma$= 3.98 | $\overline{X}$ = 11.62 | $\sigma$= 1.004 | |

** = 1% level of significance

case of non-adopted villages, majority (62.50%) of the respondents had low level of adoption followed by medium (22.50%) and high (15.00%) levels of adoption about the recommended practices in rice.

Calculated 'Z' value (8.5) found to be significant at 0.01 level of probability Therefore, null hypothesis was rejected and empirical hypothesis was accepted. These findings infer that there was a significant difference between adoption of farmers in the adopted villages after involvement of KVK when compare with the farmers of non-adopted villages regarding rice production technologies and also this finding supported from their higher mean value (16.4).

This result indicates that the farmers of adopted villages had higher level of adoption than the farmers of non-adopted villages. It does not require any explanation since the farmers of adopted villages had higher level of knowledge (As per table 1), they can adopt higher number of improved practices as compared to the farmers of non-adopted villages. It might be due to the fact that the vocational training, front line demonstrations and on-farm testing, conducted by the scientists of Krishi Vigyan Kendra, motivated the farmers to adopt the improved technologies. This finding was in tune with the results of Patel and Patel (1997) and Jondhale *et.al.,* (2000).

It could be studied from above findings that there had been a significant difference between farmers of adopted and non-adopted villages regarding the both the level of knowledge and extent of adoption in rice production technologies. Hence, it is concluded that KVK is able to bring significant changes in the level of knowledge and adoption of rice production technologies among farmers. Technical guidance and constant exposure given to farmers have played prime role in influencing technological changes. Therefore the KVK should further organize more number of demonstrations, long and short duration training programmes for maximum benefit of the farmers in the district.

## LITERATURE CITED

**Jondhale S G, Ingale L A and Fatak U N 2000** Impact of Krishi Vigyan Kendra on adoption of improved practices of summer groundnut. *Maharashtra Journal of Extension Education,* Vol.19: 109-111.

**Patel B S and Patel R S 1997** Impact of Lab to Land programme on beneficiary and non-beneficiary farmers. *Maharashtra Journal of Extension Education,* Vol. XVI: 337-340.

**Prashanthkumar T V R R 2007** A study on the knowledge and adoption of AMC level trained and un-trained farmers in Mahaboobnagar district of Andhra Pradesh. M.Sc (Ag.) Thesis, Acharya N.G. Ranga Agricultural University, Hyderabad.

**Raja P 2004** A study on the opinion leadership and adoption of recommended practices in rice crop in adopted village-Vallabharao Palem in Guntur district of Andhra Pradesh. M.Sc (Ag.) Thesis, Acharya N.G.Ranga Agricultural University, Hyderabad

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