IMPACT OF KRISHI VIGYAN KENDRA ON KNOWLEDGE OF MAIZE PRODUCTION TECHNOLOGY

Ravi Chaudhari [1], M. R. Patel [2] and V. J. Patel[3]

1 Ph. D. Scholar, Department of Agricultural Extension and Communication, BACA, AAU, Anand - 388110
2 Sr. Scientist & Head, KVK, AAU, Arnej - 382230
3 Research Associate, EEI, AAU, AAU, Anand - 388110
Email: ravichaudhari1627@gmail.com

ABSTRACT

The knowledge of an innovation is prerequisite for adoption. A higher knowledge of technical nature of improved practices will lead to a higher adoption possibly because knowledge is inert. KVK is playing an important role in increasing the knowledge of improved agricultural practices through its various extension education activities Considering this, an attempt has been made to study impact of Krishi Vigyan Kendra on knowledge of Maize production technology. The result of the study revealed that beneficiary farmers had significantly higher knowledge about maize production technology than non-beneficiary farmers. From the findings of the study an inference can be drawn that KVK's activities had influenced in increasing the knowledge of the beneficiary farmers about maize production technology.

Keywords : knowledge, krishi vigyan kendra (kvk), maize production technology

INTRODUCTION

The knowledge of an innovation is prerequisite for adoption. A higher knowledge of technical nature of improved practices will lead to a higher adoption possibly because knowledge is inert. KVK is playing an important role in increasing the knowledge of improved agricultural practices through its various extension education activities e.g. demonstrations, training, field day, farmers meeting, publication etc. The main focus of the study is to assess the impact of KVK on adoption of modern farm technology. Hence, it was felt necessary to know that to what extent the KVK has helped the farmers in acquisition of knowledge about modern farm technology.

OBJECTIVE

To study the impact of krishi vigyan kendra on knowledge of maize production technology

METHODOLOGY

The present investigation was carried out in Panchmahals district which is the operational area of Krishi Vigyan Kendra, Vejalpur. This Panchmahals district consists of total eleven talukas, out of two talukas (Halol and Kalol) were selected purposively on the basis of maximum number of activities carried out by Krishi Vigyan Kendra during the year 2005-06 to 2016-17.

Three villages from the each taluka were selected purposively on the basis of maximum numbers of activities carried out by Krishi Vigyan Kendra. Thus, six villages were selected for the present study.

In the present investigation, the population for the study consist of two categories namely beneficiary and non-beneficiary farmers of Panchmahals district. A comprehensive list of the beneficiary farmers of each adopted village was obtained from Krishi Vigyan Kendra, Vejalpur. The names of all beneficiary farmers were arranged in alphabetical order of each village, separately. From this list, Ten beneficiary farmers from each village were selected randomly for the study. Thus, 60 beneficiary farmers were selected for the study.

To know the impact of KVK, the same numbers of non-beneficiary farmers were selected randomly from same villages. Thus, altogether 60 beneficiary and 60 non-beneficiary farmers were selected for the study. Thus, total 120 farmers were selected as respondents.

Knowledge level of famers about maize production technology

Level of knowledge of the respondents about recommended technologies of maize crop was measured with the help of teacher made test, taking the base of scale developed by Dr. B. S. Patel with appropriate modifications.

The questions included in the test were of objective type and multiple choices in nature. Each question was given the score of one for correct answer and zero for incorrect answer. The possible total score that a respondent could obtain would vary from 0 to 45. The knowledge index was calculated for each respondent with the help of formula given below:

$$K_i = \frac{X_1 + X_2 + ... + X_n}{N} \, x \, 100$$

Where, K_i = knowledge index

$X_1 + X_2 + ... + X_n$ = Total number of correct answers i.e. Total score

N = Total score

All the respondents were grouped into five categories as under on the basis of scores obtained by them by using arbitrary method.

Sr. No.	Knowledge level	Score
1	Very Low	0 to 10 score
2	Low	11 to 20 score
3	Medium	21 to 30 score
4	High	31 to 40 score
5	Very high	above 41 score

t test

Two samples t test was used to test the difference between two mean values of knowledge of beneficiary and non-beneficiary farmers.

$$t = \frac{\overline{x_1} - \overline{x_2}}{S.E.\left(\overline{x_1} - \overline{x_2}\right)}$$

Where,

$\overline{X}_1$	=	Mean of sample-1
$\overline{X}_2$	=	Mean of sample-2
S.E. $(\overline{X}_1 - \overline{X}_2)$	=	Standard error of sample-1 and sample-2

$$S.E. (\overline{X}_1 - \overline{X}_2) = \sqrt{s_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

Where,

S^2p	=	Pooled variance of both the sample
n_1	=	Total number of sample-1
n_2	=	Total number of sample-2

$$S^2p = \frac{\sum x_1^2 - \frac{(\sum x_1)^2}{n} + \sum x_2^2 - \frac{(\sum x_2)^2}{n}}{(n_1 - 1) + (n_2 - 1)}$$

Where,

$$\sum x_1^2 = \frac{(\sum x_1)^2}{n} = S \, S \text{ of sample-1}$$

$$\sum x_2^2 = \frac{(\sum x_2)^2}{n} = S \, S \text{ of sample-2}$$

RESULTS AND DISCUSSION

Level of knowledge of beneficiary and non-beneficiary farmers about maize production technology

In the present study knowledge refers to know-how about different Maize production technology possessed by the farmers. Adequate knowledge is essential to farmers for the success and profitable cultivation. It was therefore thought necessary to obtain information from the farmers about the knowledge they possessed about maize production technology. The data about level of knowledge are given in Table 1.

Table 1: Distribution of respondents according to their knowledge about maize production technology (n=120)

Sr. No.	Level of knowledge	Category of farmers			
		Beneficiary (n=60)		Non- beneficiary (n=60)	
		Number	Per cent	Number	Per cent
1	Very Low (0 to 10 score)	02	03.33	09	15.00
2	Low (11 to 20 score)	03	05.00	12	20.00
3	Medium (21 to 30 score)	34	56.67	33	55.00
4	High (31 to 40 score)	12	20.00	03	05.00
5	Very High (above 41 score)	09	15.00	03	05.00
	Mean	25.95		21.583	
	S.D.	8.367		8.445	

It can be inferred from Table 1 that majority (56.67 per cent) of beneficiary farmers had medium level of knowledge about maize production technology, followed by 20.00 per cent and 15.00 per cent of them had high and Very High level of knowledge about maize production technology, respectively. In case of non-beneficiary farmers, majority (55.00 per cent) of them had medium level of knowledge about maize production technology, followed by 20.00 per cent and 15.00 per cent of them had low and very low level of knowledge about maize production technology, respectively.

The analysis of data showed that majority of beneficiary (76.67 per cent) of farmers had medium to high and non-beneficiary 60.00 per cent of farmers had medium to high level of knowledge about maize production technology.

This may be perhaps due to positive impact of KVK activities on beneficiary farmers resulted in increase in their knowledge about maize production technology.

Comparison between groups

The 't' value was calculated to examine whether there was any significant difference in level of knowledge about maize production technology between beneficiary and non-beneficiary farmers. The detail analysis was carried out in this regard which is presented Table 2.

Table 2: Comparison between beneficiary and non-beneficiary farmers in respect of their knowledge about maize production technology

Category of respondents	Number	Mean score of knowledge	Standard deviation	't' value
Beneficiary farmers	60	25.95	08.37	2.8450*
Non-beneficiary farmers	60	21.58	08.45	

* Significant at 5 per cent probability level.

It evident from Table 2 ' t ' value (2.8450) was found to be significant at 0.05 level of significance, indicating thereby that beneficiary farmers had significantly higher knowledge about maize production technology than non-beneficiary farmers. The significance difference in knowledge provide sufficient ground to reject the null hypothesis (H_2) that there will be no difference in knowledge about maize production technology of beneficiary and non-beneficiary farmers. Also the mean score of knowledge is higher in beneficiary farmers than those of non-beneficiary farmers.

From the above finding an inference can be drawn that KVK's activities had influenced in increasing the knowledge of the beneficiary farmers about maize production technology.

CONCLUSION

From the above study, it was found that beneficiary farmers had significantly higher knowledge about maize production technology than non-beneficiary farmers. From the findings of the study an inference can be drawn that KVK's activities had influenced in increasing the knowledge of the beneficiary farmers about maize production technology.

REFERENCES

Bhoi, G. N. (2008). *Impact of frontline demonstrations on caster growers in Anand district of Gujarat state.* Unpublished M.Sc. (Agri.) thesis, Anand Agricultural University, Anand.

Chhodavadia, H. C. (2001). *Impact of Frontline demonstration on groundnut – pigeon pea relay cropping system in saurashtra region of Gujarat state.* Unpublished M.Sc. (Agri.) thesis, Gujarat Agricultural University, Junagadh.

Patel, A. C. (2006). *Adoption dynamics of pigeon pea growers in relation to integrated pest management technology of Vadodara district of Gujarat state*. Unpublished Ph.D. thesis, Anand Agricultural University, Anand.

Patel, K. M. (2007). *Time-lag in adoption of tissue culture raised banana plants for middle Gujarat.* Unpublished Ph.D. (Agri.) thesis, Anand Agricultural University, Anand.

Patel, B. M. (1995). *Impact of frontline demonstration on groundnut growers' knowledge, adoption and yield with respect to groundnut production technology*. Unpublished Ph.D. thesis , Gujarat Agricultural University, Junagadh.

Singh, B. and Waris, A. (2002). Farmers knowledge and adoption of improved practices of sesame/Til production in arid area of Rajasthan! *Raj. J. of Extn. Education*, 10: 104-107.