Original Research Article

A STUDY ON KNOWLEDGE LEVEL OF KVK TRAINED VEGETABLE GROWERS

ABSTACT

India is the second largest producer of vegetable next to China in the world accounting for about 12 per cent of world production. Vegetables play a vital role in the maintenance of human health and make the diet nutritive and balanced. The study was conducted in Begunia, Bolagarh and Khordha blocks of Khordha district, Odisha. Both purposive and random sampling procedure was followed for selection of the district, blocks, gram panchayats, villages and the respondents. The total sample size of the study was 120. The response was obtained from each individual respondent in a structured interview schedule which was pretested with 10 per cent samples other than the respondents of the study. The information from the respondents was collected by the researcher during the period of 3rd March to 15th May 2017. Thus the data collected were tabulated and subjected for empirical measurement and analysis. Krishi Vigyan Kenda (KVK) is a noble concept developed by Indian Council of Agriculture Research (ICAR) which rests upon a solid base of transfer of technology (ToT) from laboratory to farmer's field. With regards to knowledge level of vegetable growers 77.50 per cent belonged to medium knowledge level category. They had more knowledge in soil and land preparation with highest mean score 2.93. All of 13 socio-economic variables were positive and significant relationship with level of knowledge obtained from correlation study.

KEYWORDS:

Risk orientation, Innovation proneness, Cosmopoliteness, Scientific orientation

ABBREVIATIONS:

KVK -Krishi Vigyan Kendra, TOT -Transfer of Technology, ICAR-Indian Council of Agricultural Research

INTRODUCTION

Odisha produces about 10.30 m.MT of horticultural produce from an area of 1.21 m.ha. and accounts for 4.28% of the total horticultural production in the country. Orissa is the second largest producer of brinjal and cabbage accounting for about 20% and 14% respectively of the total production in the country. The state produces 2.20 m. MT of brinjal from an area of 0.13 m ha. with productivity of 16.6 t/ha and about 1.15 m. MT of cabbage from an area of 0.04 m. ha. with productivity of 28 t/ha which is the highest among cabbage producing states. The production and productivity have to be stepped up by the available knowledge, skill, advanced technology and its adoption by the vegetable growers. The need based training may improve the knowledge and skill of growers to increase production and create source of income and food. The ICAR launched several frontline transfer of technology project in the country. The Krishi Vigyan Kendra is one such scheme which was introduced by ICAR in the year 1974. The objective of the KVK is to work on assessment, refinement and transfer of agricultural and allied technologies and transfer of skill through training in agriculture and allied sectors for the farmers/farmwomen of the district.

MATERIALS AND METHODS

The study was conducted in Begunia, Bolagard and Khordha blocks of Khordha district.Both purposive and multistage random sampling methods were adopted for selection of the district, block, gram panchayat, village and respondents. A list of vegetable growing farmers of these selected villages was obtained from the scientists of KVK, from this list structure proportionate stratified random sampling method was followed to select respondents of the study. A total of 120 (hundred twenty) number of respondents were selected for the purpose of the investigation. The response was obtained from each individual respondent in a structured interview schedule which was pretested with 10 per cent samples other than the respondents of the study.

Formulation of Hypotheses

Relationship between socio-economic profile and knowledge level of the respondents on vegetable production technology

H_0: There is no significant relationship between socio-economic profile and knowledge level of the respondents on vegetable production technology.

H_1: There is existence of significant relationship between socio-economic profile and knowledge level of the respondents on vegetable production technology.

RESULTS AND DISCUSSION

Table-1: Distribution of respondents according to education (N=120)

Sl. No.	Category	Frequency	Percent
1	Illiterate	24	20
2	Primary school	16	13.33
3	Middle school	16	13.33
4	High school	26	21.66
5	College & above	38	31.66
Total		120	100

The data compiled in the above table depicted that out of total respondents 20% were illiterate; whereas 13.33% received primary and middle school, 21.66% high school and 31.66 % graduate. The reason behind it was that farmers believe that getting good education will help to prosper better in future.

Table-2: Knowledge level of respondents on vegetable production technologies

(N=120)

Knowledge level	Fully known (3)		Partially known (2)		Not known (1)		Mean Score	Rank
	f	%	f	%	f	%		
Soil and land preparation	112	93.33	8	6.66	0	0	2.93	I
Varieties	102	85	18	15	0	0	2.85	III
Planting	97	80.83	23	19.16	0	0	2.80	IV
Intercultural practices	106	88.33	14	11.67	0	0	2.88	II

Nutrient management	92	76.66	28	23.34	0	0	2.76	V
Plant protection measures	98	81.66	22	18.34	0	0	2.81	III
Harvesting	86	71.66	34	28.34	0	0	2.71	VI

A perusal of above table depicted that the respondent farmers had sound knowledge in soil & land preparation with highest mean score 2.93, followed by plant inter cultural practices (2.88), variety (2.85) and planting (2.80); where as they had satisfactory knowledge on nutrient management (2.76). But they had somewhat poor knowledge on planting (2.71) of vegetable production.

Further an effort was undertaken to categorize the respondents basing on their knowledge level on the major areas of vegetable production, into 3 categories i.e. low, medium and high.

Table-3: Categorization of respondents according to their knowledge level (N=120)

Category	Frequency	Percentage
Low	12	10
Medium	93	77.50
High	15	12.50

The above table indicated that among the respondents majority (77.50%) belonged to medium knowledge level category followed by high (12.50%) and low (10%).

Table-4: Relationship between socio-economic profiles with knowledge level of respondents (N=120)

Sl. No.	Variables	Value of correlation coefficient (r)
1.	Age	0.487*
2.	Education	0.358**

3.	Occupation	0.118
4.	Annual family income	0.142*
5.	Housing pattern	0.126
6.	Land holding size	0.157*
7.	Extent of participation	0.034
8.	Cosmopoliteness	0.028
9.	Media exposure	0.045
10.	Farm power	0.263**
11.	Risk orientation	0.152*
12.	Innovation proneness	0.282**
13.	Scientific orientation	0.186**

*Significant at the 0.05 level of probability

* Significant at the 0.01 level of probability

The data in table 4 indicates the correlation coefficient between Age (X_1), Education (X_2), Occupation (X_3), Annual family income (X_4), Housing pattern (X_5), Land holding size (X_6), Extent of participation (X_7), Cosmopoliteness (X_8), Media exposure (X_9), Farm power (X_{10}), Risk orientation (X_{11}), Innovation proneness (X_{12}) and Scientific orientation (X_{13}) with knowledge level (Y_1) of vegetable production technologies.

The correlation coefficient “r” between age (X_1) and knowledge level was found to be r = 0.487, which was significant at 0.05 level of probability. Thus, it can be concluded that age has shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was rejected.

The correlation coefficient “r” between education (X_2) and knowledge level was found to be r = 0.358, which was significant at 0.01 level of probability. Thus, it can be concluded that education has shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was rejected.

The correlation coefficient "r" between occupation (X_3) and knowledge level was found to be r = 0.118, which was not significant at 0.05 and 0.01 level of probability. Thus, it can be concluded that occupation has not shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was accepted.

The correlation coefficient "r" between annual family income (X_4) and knowledge level was found to be r = 0.142, which was significant at 0.05 level of probability. Thus, it can be concluded that annual family income has shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was rejected.

The correlation coefficient "r" between housing pattern (X_5) and knowledge level was found to be r = 0.126, which was not significant at 0.05 and 0.01 level of probability. Thus, it can be concluded that housing pattern has not shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was accepted.

The correlation coefficient "r" between land holding size (X_6) and knowledge level was found to be r = 0.157, which was significant at 0.05 level of probability. Thus, it can be concluded that land holding size has shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was rejected.

The correlation coefficient "r" between extent of participation (X_7) and knowledge level was found to be r = 0.034, which was not significant at 0.05 and 0.01 level of probability. Thus, it can be concluded that extent of participation has not shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was accepted.

The correlation coefficient "r" between cosmopoliteness (X_8) and knowledge level was found to be r = 0.028, which was significant at 0.05 and 0.01level of probability. Thus, it can be concluded that cosmopoliteness has not shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was accepted.

The correlation coefficient "r" between media exposure (X_9) and knowledge level was found to be r = 0.045, which was significant at 0.05 and 0.01level of probability. Thus, it can be concluded that media exposure has not shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was accepted.

The correlation coefficient "r" between farm power (X_{10}) and knowledge level was found to be r = 0.263, which was significant at 0.01 level of probability. Thus, it can be concluded that farm power has shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was rejected.

The correlation coefficient "r" between risk orientation (X_{11}) and knowledge level was found to be r = 0.152, which was significant at 0.05 level of probability. Thus, it can be concluded that risk orientation has shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was rejected.

The correlation coefficient "r" between innovation proneness (X_{12}) and knowledge level was found to be r = 0.282, which was significant at 0.01 level of probability. Thus, it can be concluded that innovation proneness has shown positive significant relationship with level of knowledge of vegetable production technologies.

The correlation coefficient "r" between scientific orientation (X_{13}) and knowledge level was found to be r = 0.186, which was significant at 0.01 level of probability. Thus, it can be concluded that scientific orientation has shown positive significant relationship with level of knowledge of vegetable production technologies. Hence null hypothesis was rejected.

CONCLUSION

The study indicated that a large proportion of the respondents had received college and graduate education. Medium level of knowledge had positive significant relationship with their socio-economic profile. The respondent farmers had sound knowledge in soil & land preparation with highest mean score 2.93, followed by plant inter cultural practices (2.88), variety (2.85) and planting (2.80); where as they had satisfactory knowledge on nutrient management (2.76). But they had somewhat poor knowledge on planting (2.71) of vegetable production. Further an effort was undertaken to categorize the respondents basing on their knowledge level on the major areas of vegetable production, into 3 categories i.e. low, medium and high. The above table indicated that among the respondents majority (77.50%) belonged to medium knowledge level category followed by high (12.50%) and low (10%). From the present study, it is concluded that there is a positive knowledge level of KVK trained vegetable growers. So it implies that KVK should organize such type of need based and skill oriented

more training programmes and extension activities to increase the income which will ultimately uplift the socio-economic status of the farming communities in the area.

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