



KNOWLEDGE OF VEGETABLE GROWERS ABOUT ECO-FRIENDLY PRACTICES

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Abstract- The Present investigation was conducted in Navsari district of Gujarat state during 2015. All the taluka namely Navsari, Jalalpore, Gandevi, Chikhli and Vandsa of Navsari district selected and from them 100 vegetable growers selected randomly. The study revealed that middle age (46.00 per cent), secondary education (40.00 per cent), medium size of family (52.00 per cent), membership in one organization (58.00 per cent), small size of land holding (48.00 per cent), annual income (49.00 per cent), medium extension participation (52.00 per cent), medium mass media exposure (63.00 per cent), medium market orientation (50.00 per cent), medium innovativeness (50.00 per cent), medium of risk orientation (67.00 per cent), medium scientific orientation (62.00 per cent), medium achievement motivation (49.00 per cent). Than in overall knowledge about eco-friendly practices of vegetable growers. The majority (69.00 per cent) of the vegetable growers had medium level of knowledge. The independent variables like size of family (0.205*), size of land holding (0.207*), social participation (0.247*), extension participation (0.211*), scientific orientation (0.127^{NS}), risk orientation (0.199*), innovativeness (0.245*), and mass media exposure (0.204*) had positive and significant correlation with the knowledge towards eco-friendly practices of vegetable crops production.

Keywords- Profile, Knowledge, Vegetable growers, Eco-friendly practices

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Introduction

India is one of the world's most agriculturally significant countries. India is the second largest producer of vegetables, next to China and vegetables are being grown in open as well as under protected environment. Vegetables are rich source of minerals, vitamins, fiber, and contain fair amount of protein as well as carbohydrates. The productivity of different vegetables in our country is comparatively lower than the world's average productivity. Vegetables production in India 170 million tonnes and having average productivity of 19 tonnes/ha. Our demand by 2020 will be around 250 million tonnes. Average per capita availability of vegetable (210g/head/day) is still behind the recommended quantity (285g/head/day). Currently, India ranks 10th among the top ten countries in terms of cultivable land under organic certification. The total area under organic certification is 4.72 million Hectare. The major vegetables grown in Gujarat are Onion, Potato, Brinjal, Tomato, Okra and Cucurbits. During the year 2011-12, the production of vegetables has been reported to be 100.49 lakh tonnes. This increased to be 105.21 lakh tonnes during the year 2012-13. The Less Intensive Farming Environment (LIFE) has already shown that the use of chemicals in farming can be substantially cut without loss of profit. Thus, eco-friendly technologies promise a great hope for minimizing the chemical hazards and restoration of ecological balance. Eco-friendly farming is the process of producing food naturally. This method avoids the use of synthetic chemicals and generally modified organisms to influence the growth of crops. The main idea behind eco-friendly farming is Zero impact on environment. Eco-friendly farming aims at reducing the costs of production and helps the farmers to get reasonable returns. Eco-friendly farming is today's answer not only to sustained productivity, but also to safe and nutritious food. Thus, eco-friendly technologies promise a great hope for minimizing the chemical hazards and restoration of ecological balance. Keeping this view in mind, present study was conducted with specific objectives,

1. To study the profile of vegetable growers.
2. To access knowledge of vegetable crops production of eco-friendly vegetable growers about eco-friendly practices.

3. To determine relationship between profile of the vegetable growers and their knowledge regarding eco-friendly practices of vegetable crops production.

Materials and Methods

The present study was conducted in Navsari district of Gujarat state. Five talukas, viz, Navsari, Jalalpore, Gandevi, Chikhli and Vandsa were selected purposively. From each talukas two villages were selected and from each villages, ten vegetable growers were selected for the study. Thus, in all 100 vegetable growers were selected randomly. The data were collected by the researcher with the help of a well structured interview schedule by face-to-face method of interview technique. The SES scale developed by Pandya (2010) with due modification used for size of the land holding, annual income, social participation and for innovativeness Scale developed by Supe (1969) was used. Further, achievement motivation, risk orientation, Scientific orientation, Extension participation, mass media exposure the structure scheduled was developed. The data of this study were collected by arranging personal interview and use the statistical parameters were utilized for analysis. The knowledge scale consists 24 questions/statement about the eco-friendly practices of vegetable crops. The scale administered to the randomly selected respondents. The responses of respondents had been judged on the point continuum 3, 2 and 1 for true, partial true and wrong, respectively. Then scores obtained by individual respondents against each questions/statements were summed up. Thus, knowledge index obtained was used for further analysis. On the basis of score obtained by an individual respondent, they were categorized in low, medium and high knowledge group as the case appeared.

Sr.	Category	Score range
1.	Low knowledge	(below $\bar{x} - S.D.$)
2.	Medium knowledge	(between $\bar{x} \pm S.D.$)
3.	High knowledge	(above $\bar{x} + S.D.$)

After personal interviewed all the items collected as frequencies, analysis percentage and average were used.

Results and Discussion

Socio-economic profile of vegetable growers

Age

The data shows that less than half (46.00 per cent) of the respondents were found in the middle age group followed by 30.00, 24.00 per cent in old and young age

group, respectively.

Education

The data shows that Two fifth (40.00 per cent) of the respondents were educated up to secondary level, followed by 28.00, 18.00, 6.00 and 5.00 per cent primary, higher secondary, graduate and postgraduate, respectively. Only 3.00 per cent were illiterate.

Table-1 Distribution of the respondent according to their personal profile

Sr. No.	Variable	Category	No.	%
A. Independent variables :				
1	Age	a. Young (up to 35 years)	24	24.00
		b. Middle age (36 to 50 years)	46	46.00
		c. Old age (above 50 years)	30	30.00
2	Education	a. Illiterate	03	03.00
		b. Primary	28	28.00
		c. Secondary	40	40.00
		d. Higher secondary	18	18.00
		e. Graduate	06	06.00
		f. Postgraduate	05	05.00
3	Size of family	a. Small size (up to 5 members)	35	35.00
		b. Medium size (6 to 8 members)	52	52.00
		c. Large size (more than 8 members)	13	13.00
4	Social participation	a. No membership	06	06.00
		b. Membership in one organization	58	58.00
		c. Membership in more than one organizations	25	25.00
		d. Holding position in organization	11	11.00
5	Size of land holding	a. Small farmers (up to 2.00 acre)	48	48.00
		b. Medium farmers (2.01 to 5.00 acre)	34	34.00
		c. Large farmers (above 5.00 acre)	18	18.00
6	Annual income	a. Up to 50,000	34	34.00
		b. 50,001 to 1,00,000	49	49.00
		c. Above 3,00,001	17	17.00
7	Extension Participation	a. Low	22	22.00
		b. Medium	52	52.00
		c. High	27	27.00
8	Mass media exposure	d. Low	14	14.00
		e. Medium	63	63.00
		a. High	23	23.00
9	Market orientation	a. Low	24	24.00
		b. Medium	50	50.00
		c. High	26	26.00
10	Innovativeness	a. Low	23	23.00
		b. Medium	50	50.00
		c. High	26	26.00
11	Risk orientation	a. Low	18	18.00
		b. Medium	67	67.00
		c. High	15	15.00
12	Scientific orientation	a. Low	16	16.00
		d. Medium	62	62.00
		b. High	22	22.00
13	Achievement motivation	a. Low	24	24.00
		b. Medium	49	49.00
		c. High	27	27.00

Size of family

The data shows that majority (52.00 per cent) of respondents had medium size of family, whereas 35.00 and 13.00 per cent of respondents had small and large size of family, correspondingly.

Social participation

The data shows that large part (58.00 per cent) of the respondents had membership in one organization and 25.00 per cent had membership in two organizations. Only 6.00 per cent of them had no membership at all in any organization. Few (11.00 per cent) among the respondents who had membership held the position in the social organization.

Size of land holding

The data shows that indicated that nearly half (48.00 per cent) of the respondents

were small farmer, followed by 34.00 per cent medium farmers. Only 18.00 per cent were big farmers .

Annual income

The data shows that clearly indicated that nearly half (49.00 per cent) of the respondents had medium annual income, followed by 34.00 per cent had low annual income. Only 17.00 per cent had high annual income.

Extension Participation

The data shows that more than half (52.00 per cent) of the respondents had medium extension participation, while 27.00, 22.00 per cent of them had high and low extension participation, respectively.

Risk orientation

The data exposed that majority (67.00 per cent) of the respondents had medium risk orientation, while 18.00 and 15.00 per cent of the respondents had low and high risk orientation, correspondingly.

Market orientation

The data shows that half (50.00 per cent) of the respondents had medium market orientation, whereas 26.00 and 24.00 per cent of the respondents had medium and low market orientation, respectively

Mass media exposure

The data shows that majority (63.00 per cent) of the respondents had medium exposure to mass media, whereas 23.00, 14.00 per cent of respondents had high and low exposure to mass media, respectively.

Scientific orientation

The data shows that majority (62.00 per cent) of the farmers had medium level of scientific orientation, while 22.00 per cent and 16.00 per cent of respondents had high and low level of scientific orientation, respectively.

Achievement motivation

The data shows that nearly half (49.00 per cent) of the respondents had high achievement motivation. Further 27.00 per cent had medium and 24.00 per cent low achievement motivation.

Innovativeness

The data shows that more than half (52.00 per cent) of the respondents were highly innovative and was followed by medium innovative 26.00 per cent and low innovative 23.00 per cent.

The all findings are similar to the findings reported by [1,4,6].

Knowledge of vegetable growers about eco-friendly practices

Table- 2 Distribution of vegetable growers according to the knowledge about eco-friendly practices

n=100			
Sr. No.	Level of Knowledge	Frequency	Per cent
1.	Low	17	17.00
2.	Medium	69	69.00
3.	High	14	14.00
Total		100	100.00
Mean: 61.39		S.D.: 4.73	

The Data presented in [Table-2] reported that greater part (69.00 per cent) of the respondents had medium knowledge regarding eco-friendly practices; however, few of them (17.00 per cent) had high knowledge. Only (14.00 per cent) were in the group of low knowledge.

The findings are similar to the findings reported by [2,5,8].

Relationship between profiles of the vegetable growers with their knowledge

Table-3 Relationship between profile of the vegetable growers and their knowledge regarding eco-friendly practices

Sr. No.	Independent Variables	Correlation-Coefficient
1.	Age	0.166 ^{NS}
2.	Education	0.279 ^{**}
3.	Size of family	0.205 [*]
4.	Social participation	0.247 [*]
5.	size of Land holding	0.207 [*]
6.	Annual income	0.274 ^{**}
7.	Risk orientation	0.199 [*]
8.	Market orientation	0.167 ^{NS}
9.	Extension Participation	0.211 [*]
10.	Mass media exposure	0.204 [*]
11.	Scientific orientation	0.127 ^{NS}
12.	Achievement motivation	0.320 ^{**}
13.	Innovativeness	0.245 [*]

Note: ^{*}significant at 0.05 level, ^{**} highly significant at 0.01 level and NS non significant

[Table-3] indicated that the independent variables like size of family (0.205^{*}), size of land holding (0.207^{*}), social participation (0.247^{*}), extension participation (0.211^{*}), scientific orientation (0.127^{NS}), risk orientation (0.199^{*}), innovativeness (0.245^{*}), and mass media exposure (0.204^{*}) had positive and significant correlation with the knowledge towards eco-friendly practices of vegetable crops production. The variables like education (0.279^{**}), annual income (0.274^{**}) and achievement motivation (0.320^{**}) shows positive and highly significant correlation with the knowledge towards eco-friendly practices of vegetable crops production. The variables like age (0.166^{NS}) and market orientation (0.167^{NS}) shows positive and non-significant relationship with the knowledge towards eco-friendly practices of vegetable crops production.

The findings are similar to the findings reported by [2,3,7].

Conclusion

The above study showed that majority (69.00 per cent) of the respondents had medium level of knowledge regarding eco-friendly practices. The probable reason might be due to fact that majority of the vegetable growers had higher education and they are well aware about detrimental effect of agro-chemical and consequences of exploitation of natural resources. The independent variables like size of family, size of land holding, social participation, extension participation, scientific orientation, risk orientation, innovativeness, and mass media exposure had positive and significant correlation with the knowledge towards eco-friendly practices of vegetable crops production. The probable reason might be due to fact that knowledge about eco-friendly practices of vegetable crops production increase with annual income, social participation, risk orientation, scientific orientation, extension participation, mass media exposure.

Conflict of Interest: None declared

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