A Study on Knowledge about Recommended Package of Practices by Chilli Growers

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A B S T R A C T

The present study was conducted in Agricultural Zone Sopore, Baramulla district of Jammu and Kashmir state. Five villages were selected purposively on the basis of maximum chilli growers present in these five villages. From these five villages respondents were selected by using proportionate allocation method for the study. Thus, total 100 farmers were selected for the study. The "Ex-Post-Facto" design of social research was used for investigation. The findings indicated that, (62.00%) of growers were in medium age group, (31.00%) educated up to high school level, (57.00%) belonged to medium size of family comprising 6-10 members,(64.00%) belonged to Joint family, (33.00%) were possessed land holding ranging upto 10 kanals, (84.00%) possessed 0.5-1.5 kanal of land holding under chilli cultivation, (52.00%) had agriculture as their main occupation, (54.00%) were having annual income upto Rs. 1 lakh, (57.00%) were having 6-10 years of experience in chilli cultivation, more than half respondents (62.00%) were observed utilising medium sources of information, (60.00%) had medium scientific orientation, (53.00%) had medium level of economic motivation and (42.00%) had low extension contact about improved chilli cultivation practices. As regards the relationship of the socio economic profile of the growers with knowledge of recommended package of practices, in case of independent variables viz. education, occupation, total land holding, experience in chilli cultivation, sources of information, scientific orientation and economic motivation were found positively and significantly related with the knowledge level of growers at 0.05 per cent level of probability. Family size, family type, land under chilli cultivation, annual income and extension contact had no significant correlation with the knowledge level and age was found to have negative and significant correlation with the knowledge level of chilli growers.

Introduction

Vegetables are the most important human diet for better health because they possess high nutritive value and are a rich source of carbohydrates, proteins, vitamins and minerals and thus play an important role in human nutrition in supplying adequate quantity of free radicals, anti-oxidants, micro-nutrients and essential amino acids, which are essential for normal functioning of human metabolic processes. Looking to the vegetable scenario in the world China is dominating as it produces 43.3 per cent of the world

vegetable production followed by India with a total production of 1.75 lakh metric tonnes which contributes 9.7 per cent of world vegetable production (Anonymous, 2003). In India more than 40 different kinds of vegetables are grown. However, a planned development in the field of vegetable production is very much essential to improve the nutritional security for masses (Singla *et al*, 2016).

Among vegetables Chilli *(Capsicum annum* L.) is one of the most important commercial vegetable cum spice crop grown almost in all the parts of temperate, tropical and subtropical regions of the world. It's botanical name is "*Capsicum annum*" and it belongs to the family solanaceae. The world's hottest chilli "Naga Jolokia" is cultivated in hilly terrain of Assam in a small town Tezpur, India. Currently, Chillies are used throughout the world as a spice and also in the making of beverages and medicines. Some varieties of Chillies are famous for red colour because of the pigment 'capsanthin,' others are known for biting pungency attributed to 'capsaicin'. Chillies are rich in vitamins, in vitamin A and C. Chillies have long been used for pain relief as they are known to inhibit pain messengers. It is also reported that they have the power to boost immune system and lower cholesterol (Goudappa *et al.,* 2012).

In whole world Chilli is raised over an area of 2020 thousand ha with a production of 3762 thousand tonnes. In Asia, India is the world leader in chilli production followed by China, Thailand and Pakistan (Geetha *et al.,* 2017).

In India, chilli is grown over an area of 774.9 thousand ha with total production of 1492.10 thousand tonnes. Andhra Pradesh is the largest producer of chillies in India with total production of 685.15 thousand tonnes followed by Karnataka (107 thousand tonnes), West Bengal (100 thousand tonnes), Madhya

Pradesh (93.57 thousand tonnes), Orissa (70 thousand tonnes), Maharashtra (45.60 thousand tonnes) and Tamil Nadu (23.06 thousand tonnes). (Anonymous, 2015-16).

In Jammu and Kashmir, Baramulla is the most important chilli growing district of Kashmir valley due to favourable climatic conditions and availability of proper marketing facilities as compared to other districts. In district Baramulla, Sopore Sub-Division has the highest area 85.55 ha under chilli and other vegetables (SDAO, Sopore).In view of this fact the present study was conducted with the following objectives include to study the socio-economic profile of chilli growers. To know the knowledge of chilli growers regarding recommended package of practices. And also to know the relationship between socio economic profile and knowledge level of chilli growers.

Materials and Methods

The present research study was conducted in Baramulla district of Jammu and Kashmir state. In Baramulla district, Agricultural Zone Sopore were purposively selected for the research.

Five villages in Agricultural Zone Sopore were purposively selected for research. These villages were considered on basis of maximumchilli growers. From these five villages a sample of 100chilii growers were selected for the research work. An interview schedule was developed with the help of scientists of SKUAST-Kashmir and Sub Divisional Agricultural Ofiice Sopore.

Data was collected with the help of interview schedule. Personal interview method was used for data collection. For the analysis of collected data simple statistical procedures were used.

Results and Discussion

Age

The data in Table-1 reveals, that majority of the chilli growers (62.00 %) belonged to middle age group, followed by 30.00 per cent belonged to old age group and 8.00 per cent belonged to young age group. The mean and standard deviation of age was 52.64 and 13.86 respectively.

The results obtained under this study are in line with Khan *et al.,* (2017).

Education

It is clear from the Table-1 that majority of the growers (31.00 %) were educated up to high school, 20.00 per cent were illiterate, 16.00 per cent were educated up to middle school. While as 14.00 per cent were educated up to intermediate level, 10.00 per cent were educated up to primary school and rest of the growers (9.00 %) were educated up to graduate and above. The results show that the mean and standard deviation of education was 2.36 and 1.573 respectively.

The findings of this study are in line with the findings of Ambavane (2014).

Family size

It is clear from the Table-1 that majority (57.00 %) of growers were having family size of 6-10 members followed by 30.00 per cent and 13.00 per cent of the growers were having family size up to 5 members and above 10 members respectively. The mean and standard deviation of family size was 7.8 and 4.35 respectively.

The results of this study are in agreement with the results of Pandit *et al.,* (2013).

Family type

It is clear from the Table-1 that, more than half (64.00 %) of growers were having joint family and 36.00 per cent growers had nuclear family. The mean and standard deviation of family type was 1.64 and 0.48 respectively.

The results were in agreement with the results expressed by Yadav (2010).

Total land holding

The data in Table 1 shows that, majority of the growers (33.00 %) were having land holdings up to 10 kanals, 29.00 per cent and 26.00 per cent of the growers had 11-20 kanals and above 30 kanals land holding respectively. Whereas, 12.00 per cent of growers had land holding of 21-30 kanals. The mean and standard deviation of total land holding was 29.71 and 36.33 respectively.

The findings are in conformity with the findings of Ram *et al.,* (2010).

Land under chilli cultivation

The data in Table 1shows that more than one third (84.00 %) of the growers had less area under chilli crop (0.5-1.5 kanal), 12.00 per cent of the growers had an area of 1.5-2.5 kanals and only 4.00 per cent of the growers had an area of above 2.5 kanals under chilli crop. The mean and standard deviation of area under chilli crop was 0.92 and 0.64 respectively.

The results of the study are in line with the result of Sharma (2002).

Occupation

The data presented in Table1 reveals, that more than half (52.00 %) of the growers were

engaged only in agriculture, while 32.00 per cent of the growers were engaged both in agriculture and business and 16.00 per cent of the growers were engaged both in agriculture and service sector. The mean of occupation was 1.62 and standard deviation was 0.73.

The findings of the study are in line with the findings of Saini *et al.,* (2017).

Annual income

It is clear from the Table-1 that more than half (54.00 %) of the growers were having annual income (Up to Rs. 1 lakh), 28.00 per cent of the growers were having annual income in between (Rs.1-2 lakh) and only 18.00 per cent of the growers were having annual income above Rs. 2 lakh. The mean and standard deviation of annual income was Rs. 165150 and Rs. 192511.

The above findings got support from the studies of Neerja *et al.,* (2016).

Experience in chilli cultivation

It is clear from the Table-1 that more than half (57.00 %) of the growers were having 11-20 years of experience in chilli cultivation, followed by 29.00 per cent of the growers were having above 20 years of experience in chilli cultivation and 14.00 per cent of the growers had up to 10 years of experience in chilli cultivation. The mean and standard deviation of experience in chilli cultivation was 27.84 and 13.19 respectively.

These results are in conformity with the results of Kumar *et al.,* (2013).

Extension contact

The data presented in Table-1 reveals that majority of the growers (42.00 %) had low level of extension contacts, 32.00 per cent of

the growers were having medium level of extension contacts and 26.00 per cent of the growers had high level of extension contacts. The mean and standard deviation of Extension contacts was 1.84 and 0.81 respectively.

These findings are in conformity with the results of Vandana Pahade (2011).

Sources of information

The data in Table-1 reveals that majority (62.00 %) of the respondent had medium level of sources of information, 29.00 per cent of the respondent had high level of sources of information and only 9.00 per cent of the respondent had low level of sources of information. The mean and standard deviation of sources of information was 3.27 and 1.523 respectively.

These findings of the study are in line with the results obtained by Lad (2013).

Scientific orientation

The data in Table-1 reveals, that more than half (60.00 %) of the growers were having medium level of scientific orientation, followed by low and high level of scientific orientation with 30.00 per cent and 10.00 per cent growers respectively. The mean and standard deviation of scientific orientation was 26.49 and 9.54 respectively.

The results obtained by this study got support from the results declared by Shriwas *et al.,* (2015).

Economic motivation

The data in Table-1 reveals, that more than half (53.00 %) of the growers were having medium level of economic motivation followed by low and high level of economic

motivation with 29.00 per cent and 18.00 per cent respectively. The mean and standard deviation of economic motivation was 26.14 and 8.43 respectively.

Table.1 Socio-economic profile of chilli growers (N=100)

S.NO.	Variable	Category	F	P	Mean	S.D.
1	Age	Young (18 to 35years) Middle (36 to 60 years) Old (above 60 years)	08 62 30	08.00 62.00 30.00	52.64	13.86
2	Education	Illiterate Primary school Middle school High school 10 + 2 Graduate and above	20 10 16 31 14 09	20.00 10.00 16.00 31.00 14.00 09.00	2.36	1.573
3	a.Family size	Up to 5 members 6-10 members Above 10 members	30 57 13	30.00 57.00 13.00	7.8	4.35
	b.Family type	Joint family Nuclear family	64 36	64.00 36.00	1.64	0.48
4	a.Total land holding	Up to 10 kanal 11-20 kanal 21-30 kanal Above 30 kanal	33 26 12 29	33.00 26.00 12.00 29.00	29.71	36.33
	b. Land under chilli cultivation	0.5-1.5 kanal 1.5-2.5 kanal Above 2.5 kanal	84 12 4	84.00 12.00 4.00	0.92	0.64
5	Occupation	Only Agriculture Agriculture + Business Agriculture + Service	52 32 16	52.00 32.00 16.00	1.62	0.73
6	Annual income	Up to 1 lakh 1-2 lakh Above 2 lakh	54 28 18	54.00 28.00 18.00	165150	192511
7	Experience in Chili cultivation	Up to 10 years 11-20 years Above 20 years	14 57 29	14.00 57.00 29.00	27.84	13.19
8	Extension contacts	Low(below mean- S.D) Medium(btwn mean $\pm$S.D) High(above mean +S.D)	42 32 26	42.00 32.00 26.00	1.84	0.81
9	Sources of information	Low(below mean- S.D) Medium(btwn mean $\pm$ S.D) High(above mean + S.D)	09 62 29	09.00 62.00 29.00	3.27	1.523
10	Scientific orientation	Low(below mean - S.D) Medium(btwn mean $\pm$ S.D) High(above mean + S.D)	30 60 10	30.00 60.00 10.00	26.49	9.54
11	Economic motivation	Low(below mean - S.D) Medium(btwn mean $\pm$ S.D) High(above mean + S.D)	29 53 18	29.00 53.00 18.00	26.14	8.43

Note: F= Frequency, P= Per cent, S.D= Standard deviation.

Table.2 Overall knowledge level of chilli growers (N=100)

S.No	Variable	Categories	Growers	
			F	**P**
1	Knowledge	Low (below mean - S.D) (<21.19)	23	23.00
		Medium (btwn mean $\pm$ S.D) (21.19-29.34)	61	61.00
		High (above mean + S.D) (>29.34)	16	16.00
Mean: 25.27 S. D.: 4.074				

Table.3 Relationship between socio-economic profile with the knowledge level of chilli growers (N=100)

S.No	Variable	Correlation coefficient ('r' Value)	'p' Value
1	Age	-0.381*	0.000
2	Education	0.446*	0.000
3	a. Family size	-0.076[NS]	0.452
	b. Family type	0.004[NS]	0.971
4	a. Total land holding	0.213*	0.033
	b. Land under chilli cultivation	-0.020[NS]	0.840
5	Occupation	0.375*	0.000
6	Annual income	0.008[NS]	0.938
7	Experience in chilli cultivation	0.387*	0.000
8	Extension contacts	0.167[NS]	0.079
9	Sources of Information	0.511*	0.000
10	Scientific Orientation	0.469*	0.000
11	Economic motivation	0.487*	0.000

* 'p' value less than 0.05 implies that correlation is significant

NS- Non-significant

The findings of this study are in line with the results of Gurjar *et al.,* (2017).

Knowledge of chilli growers regarding recommended package of practices

From the Table-2 it is clear that, majority (61.00 %) of the chilli growers were having medium level of knowledge, whereas 23.00 per cent and 16.00 per cent of the growers were having low and high level of knowledge regarding recommended package of practice respectively. The findings of this study are in conformity with the findings of Verma *et al.,* (2015) and Jangwad *et al.,* (2018).

Relationship between socio-economic profile with the knowledge level of chilli growers

Coefficient of Correlation (r value) was worked out to know the relationship between independent variables such as age, education, family size, family type, occupation, annual income, total land holding, area under chilli crop, experience in chilli cultivation, extension contact, sources of information, scientific orientation and economic motivation with the knowledge level of chilli growers.

From Table- 3, it is evident that independent variables education, occupation, total land holding, experience in chilli cultivation, sources of information, scientific orientation and economic motivation had positive and significant correlation with the knowledge level of chilli growers whereas age was negatively and significantly correlated with the knowledge level of growers. However family size, family type, land under chilli cultivation, annual income and extension contact were non significantly correlated with knowledge level of growers.

Education had a positive and significant correlation with the knowledge level of chilli growers. The results are in line with the results of Joshi (2004).

Total land holding had a positive and significant correlation with the knowledge level of chilli growers. The outcome of this study are in line with the findings of Tiwari (2006).

Occupation had a positive and significant correlation with the knowledge level of chilli growers. The results are in line with the results of Gurjar (2016)

Experience in chilli cultivation had a positive and significant correlation with the knowledge level of chilli growers. The results of this study are in line with the results of Yadav (2001).

Sources of information had a positive and significant correlation with the knowledge level of chilli growers. The results obtained are in line with Sonare (2008).

Scientific orientation had a positive and significant correlation with the knowledge level of chilli growers. The results of present study are in line with the results of Dongardive (2002).

Economic motivation had a positive and significant correlation with the knowledge level of chilli growers. The results matched with the results of Dhepe (2014)

Age had a negative and significant correlation with the knowledge level of chilli growers. The findings are in line with the findings of Hadiya *et al.,* (2014).

Family size and family type were non-significant with the knowledge level of chilli growers. The findings are in line with the findings of Kumar *et al.,* (2016).

Land under chilli cultivation was negatively non-significant with the knowledge level of chilli growers.

Annual income was positive and non-significant with the knowledge level of chilli growers. The results are in line with the results of Soni *et al.,* (2013).

Extension contact was positive and non-significant with the knowledge level of chilli growers. The results are in line with the results of Singh and Malhotra (2010).

In conclusion, it was found that age had a negative and significant correlation with the knowledge of recommended package of practices of chilli. Education, occupation, total land holding, experience in chilli cultivation, sources of information, scientific orientation and economic motivation had positive and significant correlation with the knowledge of recommended package of practices.

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