

Socio Economic Profile of the Cash Vegetable Crops Growers in Varanasi district of Uttar Pradesh

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ABSTRACT

The present study was conducted for the period 2020-21 and primary data were used for The analysis. Further, stratified random sampling technique was followed to select the respondents. The district of Varanasi in eastern Uttar Pradesh has been deliberately chosen as the district with the highest horticultural production. Two blocks, namely Arajiline and Pindra, from Varanasi district with maximum horticultural production were purposefully selected. Two hundred and thirty farmers were selected from 15 villages randomly. The study concluded that most of the respondents belong to the middle age group. The literacy level of the farm families were classified into seven groups. 84.78 percent of the respondents have a high level of literacy. The respondents of farmers' families belong to the nuclear family system, followed by 18.26 percent of farmers to the extended family system (57.40) and 24.34 percent in the joint family system. The average land under cash crop growers (chilli and tomato) in marginal, small, semi-medium, and medium-sized farm groups were 0.68 ha, 1.58 ha, 2.38 ha, and 4.15 ha respectively. Agriculture was the most common major occupation, accounting for 55.66 per cent of all occupations. The farming experience of cash vegetable crop growers showed that the majority of the growers (60.86 %) had farming experience of less than 20 years.

Key words : Cash crops, Land Holding, Socio- economic, Education

Introduction

The agriculture sector in India has been one of the biggest employment generators, with about 45 per cent of the population used in agriculture or allied activities and it contributes about 15 per cent of the GDP. The farmland size of the farmers has been decreasing, thereby impacting the efficiency, average productiveness, and farm output considerably, with extensive scope for efficient farming practices and mechanization (Indian Agriculture Tractor Market Report, 2019). Primarily, India is an agricultural country, so the economics of farm produce play an important role in the country's economy. In India, agriculture provides a direct source of income for

70% of rural households. Horticulture is an inseparable part of agriculture. India has witnessed an increase in horticultural production over the last decade, and the area under horticultural crops grew by 2.6% per annum and annual production increased by 4.8%. The contribution of vegetable production remains the highest (59–61%) among all other horticultural crops over the last five years. From 2004-05 to 2017-18, the production of vegetables has increased from 101.2 million tonnes to 184.40 million tonnes.

Vegetables are important crop in the horticulture industry, occupying an area of 10.44 million hectares in 2018–2019. Total production reached to 187.7 million tonnes with an average yield of 17.96 tons/

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ha in 2018-19. In fact, vegetables account for about 59.15% of horticultural production in 2018-19. During the period for 2007-08 to 2018-19, vegetable area and production increased by 32.98% and 5.95%, respectively. In recent times, vegetables have been in high demand due to increased public health awareness.

Materials and Methods

The study conducted for the period of 2020-21 and primary data were collected for analysis. Further, multistage stratified sampling technique was followed to select the respondents. Varanasi district from eastern Uttar Pradesh having largest horticulture production was selected purposively. Two blocks namely Arajiline and Pindra from Varanasi districts with maximum horticultural production were purposively selected for the study. Blocks Arajiline and Pindra consists of 226 and 191 villages; out of which, 165 villages in Arajiline block and 140 villages in Pindra block because each block had a large area under vegetable farming, five percent of the villages in every block, i.e. eight and seven villages, were randomly selected for the study. Total 230 farmers were selected from 15 villages.

Descriptive Statistics

The whole analysis was done with help of various descriptive *viz.* percentage, mean, chi square test etc.

Averages

The average used in the present study relates to simple average.

An average was calculated by applying following formula:

$$\text{Average} = \Sigma X_i / n$$

Where, ΣX_i = sum of independent variables

n = number of observation in data

Percentages

Percentage is the number or ratio expressed as a fraction of hundredth. It is denoted using the percent sign "%". It is computed as;

$$\text{Percentage (\%)} = X / N * 100$$

Where,

X = Respondents of desired class

N = Total number of respondents

Chi-square test

$$\chi^2 = \Sigma (O_i - E_i)^2 / E_i$$

O_i = Observed value

E_i = Expected value

Results and Discussion

The major socio-economic characteristics considered in this study were family size, age distribution, education level, occupation and size of land holdings of selected households.

Age Composition

It is evident from Table 1 that the overall bases, 50 per cent of cash crop growing farmers were in the middle age group (31-50 years). Approximate 39.13 per cent farmers were in old age group (>50 years) and only 10.89 percent farmers were in the young age group (<30 years).

Education

The literacy level of the farms families were classified into seven groups. Table 2 shows that 84.78 per cent of respondents have a high level of literacy, whereas 15.22 have a low level of literacy. In addition, the educational standard of literate respondents was discovered to be as follows in descending order: 20, 19.13, 14.35, 11.74, 12.60 and 6.96 per cent to the level of Primary, Middle, High School, Intermediate, Graduation and Post Graduate and above respectively. As a result, it may be concluded that the vast majority of respondents, i.e. 84.78 per cent were literate.

Type of family

The respondents of farmers family belongs to nuclear family system followed by 18.26 per cent farmers to extended system 57.40 and 24.34 per cent in joint family system. A study of table 3 indicates that the 57.40 per cent farmers families were observed, who had for all categories of farmers families belongs to extended family size (5-7) and 18.26 per cent of nuclear family size (up to 4).

Size of land holding

The detailed land holding size of the sampled farmers in presented in Table 4 indicates that 230 contributors were there in this study, from which 126 (54.78 per cent) contributors are marginal size of farm group (up to 1 hectare), 64 (27.82 per cent) contributors have small size of farm group (1- 2 hectare), 25 (10.86) respondents have semi medium size of farm group (2- 4 hectare), 15 (6.52) contributors

have medium size of farm. The average land under cash crop growers (chilli and tomato) in marginal, small, semi- medium and medium size of farm groups were 0.68 ha, 1.58 ha, 2.38 ha and 4.15 ha respectively.

Occupation

Table 5 showed that agriculture was the most common major occupation which was accounting for 55.66 per cent of all occupations. Agricultural and other farming accounted for 26.51 per cent of all occupations, while agriculture and other service accounted for 17.83 per cent. It was concluded that there were 55.66 per cent respondents who had not any subsidiary occupation.

Table 1. Age wise distribution

Sl.No	Particular	Frequency	Percentage
1.	Young age (<30)	25	10.89
2.	Middle age (31-50)	115	50
3.	Old age (>50)	90	39.13
	Total	230	100

Table 2. Education status of sampled household

S. No.	Particular	Frequency	Sample mean
1	Illiterate	35	15.21
2	Primary	46	20.00
3	Middle	44	19.13
4	High School	33	14.34
5	Intermediate	27	11.73
6	Graduation	29	12.60
7	P.G and above	16	9.95
	Total	230	100

Table 3. Description about families of sampled respondents

S. No.	Category	Frequency/ No of family	Percentage
1.	Nuclear (Up to 4)	42	18.26
2.	Extended (5 to 7)	132	57.40
3.	Joint (>7)	56	24.34
	Total	230	100

Table 4. Average land holding

Particulars	Various farm size group				Total /Sample Average
	Marginal	Small	Semi-Medium	Medium	
1 farms Group (in numbers)	126	64	25	15	230
2 Land holding (in hectare)	Up to 1	1-2	2-4	4-10	-
3 Total	0.68	1.58	2.38	4.15	2.19

Farming experience

The farming experience of cash vegetable crop growers intable 6 shows that the majority of the growers (60.86 %) had farming experience of >20 years followed by 27.82 per cent of them had 11-20 years of experience and about 11.30 per cent of cash crop vegetable growers had experience 1-10 years , respectively. It is also revealed from the table 6 that majority (57.59 %) of the marginal farm size chilli and tomato growers were having experience of >20 years in chilli and tomato farming whereas majority of the small (51.56 %) grower were having experience of >20years. In semi medium group majority of farmer having (48.00%) and medium farm size (60.00 %) growers had experience of >20 years. The results highlight that the cash vegetable farming has gained more acceptance in the recent decade due to its profit advantage.

Chi-square test for association between education and farm size group of cash vegetable crop growers:

H0= there is no association between level of education and farm size group

H1= there is association between level of educa-

Table 5. Occupational Status of Sampled Household

S.No	Details	Numbers	Percentage
1	Agriculture	128	55.66
2	Agriculture and other farming activity	61	26.51
3	Other services associated with Agriculture	41	17.83
	Total	230	100

Table 6. Farming experience of cash vegetable crop grower

S.No	Farming experience	Total	Percentage
1.			
2	1-10 years	26	11.30
3	11-20 years	64	27.82
4	>20 years	140	60.86
	Total	230	230

Table. Association between Education and farm size group

N = 230

Education/group Farm Size	Marginal		Small		Semi-Medium		Medium		Total of O Values
	O	E	O	E	O	E	O	E	
Illiterate	22	19.17391	8	9.73913	3	3.804348	3	2.282609	35
Primary	28	25.2	12	12.8	5	5	1	3	46
Middle	23	24.10435	14	12.24348	4	4.782609	3	2.869565	44
High School	19	18.07826	9	9.182609	3	3.586957	2	2.152174	33
Intermediate	12	14.7913	8	7.513043	4	2.934783	3	1.76087	27
Graduation	14	15.88696	8	8.069565	4	3.152174	3	1.043478	29
P.G and above	8	8.765217	5	4.452174	2	1.73913	1	1.043478	16
Total of O	126	64	25	15	230				

5 per cent level of significance with 18 DOF

÷2= 9.52 (calculated value)

Tabulated value = 28.87

tion and farm size group

Tabulated value > calculated value that means we accept the null hypothesis that means there is no any association between education and farm size group of cash vegetable crop growers.

Conclusion

On the basis of findings it may be concluded that most of the respondents belongs to middle age group, the literacy level of the farms families were classified into seven groups, shows that 84.78 per cent of respondents have a high level of literacy. The respondents of farmers family belongs to nuclear family system followed by 18.26 per cent farmers to extended system 57.40 and 24.34 per cent in joint family system. The average land under cash crop growers (chilli and tomato) in marginal, small, semi-medium and medium size of farm groups were 0.68 ha, 1.58 ha, 2.38 ha and 4.15 ha respectively. The agriculture was the most common major occupation which was accounting for 55.66 per cent of all occupations. The farming experience of cash vegetable crop growers in Table 6 shows that the majority of the growers (60.86 %) had farming experience of less than 20 years. The shift towards cultivation of cash vegetable crop in Varanasi district may change the scenario of the agriculture in the state. The majority of the sample's farmers are small and marginal farmers, demonstrating that they cultivate cash vegetable crops. The efforts are required to provide procurement facilities, remunerative prices to the farmers and encourage processing industries to take produce from small and marginal farmers.

Policy Implications

Develop regulations that inspire farmers to diversify their earnings sources, specifically for marginal and small farmers. Policies must cognizance at the improvement of cash vegetable plants that motivates farmer to adopt on industrial level. Strengthening the delivery of formal and informal training and extension is necessary. For farmers to have more accessibility, it is necessary to extend the setups of economic offerings and promotional infrastructure. Farmers will be able to invest in non-farm businesses with the help of access to tender financing, increasing family income and food security. The government must ensure that the agricultural sector receives structured input supplies.

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