Socio- economic characteristics of guava orchardists in Western Uttar Pradesh

Abstract

This study was conducted in two blocks i.e., Baghara and Charthawal of Muzaffarnagar district of Western Uttar Pradesh during the year 2018-19. To know the socio- economic characteristics of guava orchardists for this investigation data was collected from 80 guava orchardists through personal interview. It was found that the majority of guava orchardists (43.75 percent) belongs to higher medium age group ranging between 46 to 60 years of age, (22.50 per cent) respondents were having educational status up to high school, (70.00 per cent) orchardists were belonging to other backward caste category, (91.25 per cent) orchardists were married, (91.25 per cent) orchardists were engaged in agriculture as the main occupation, 60.00 per cent orchardist's were living in joint family, (48.75 per cent) guava orchardists were belong to medium family category 5-8 members including their family, (63.75 per cent) were having membership of one organization, (78.75 per cent) orchardists were had pucca house, (51.25 per cent) orchardists were having land (above 04 ha.), majority of the respondents (60.00 per cent) were having medium level of family resources (between 6-10), (90.00 per cent) were having motor cycle/ Scooty as transportation facility, (43.75 per cent) were having low level of farm assets (below 6), (68.75 per cent) orchardists were having private electric tube well as a source of irrigation, (81.25 per cent) were having medium level of information sources (Between 7-12 sources) in research study area. The majority (53.75 per cent) guava orchardists annual income were above Rs. 2,00,000.

Key Words: Guava Orchardists, Socio-economic characteristics

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Introduction

Guava (*Psidium guajava*L.) belongs to family Myrtaceae is one of the cherished fruits of India and is aptly called as the Apple of Tropics and Poor man's apple. It is native of Mexico, Central America and Northern South America. For its high adaptability to varied soil and climatic conditions along with hardy nature, it has acclimatized in Indian condition within a short period of time. This fruit has gained considerable prominence in our country in

general and the state of Uttar Pradesh in particular on account of its high nutritive value, pleasant aroma and availability at moderate price.

Guava besides being a wholesome fruit is a storehouse of pectin, minerals (Ca P and Fe) carbohydrate, fiber, riboflavin, thiamine andVitamin C. The fruit is used to prepare jelly, jam, nectar, juice, pie, cake, stewed and preserve. Fresh fruit of guava contain's 100 to 260 mg Vitamin C of per 100g of its pulp and it is not lost during preservation. The total area and production of guava in the country are 265 thousand hectares and 40,54 thousand metric tonnes. Guava is successfully grown all over the country and Uttar Pradesh is the most important guava producing state of the country and Allahabad has the reputation of growing the best guava in the country as well as in the world. Uttar Pradesh is the largest producer of guava viz; 914.94 thousand metric tonnes from an area of 49.01 thousand hectares followed by Madhya Pradesh 523.75 thousand metric tonnes in 30.31 thousand hectares. **(National Horticulture Board 2017-18)** Production of guava in high density planting (1.5×3.0 m) is 26 tonnes per hectare during third year. The yield goes up to 47 tonnes/ha during the fifth and 55 tonnes/ha during seventh year of growth. At spacing of 6.0×6.0 m, the 6 tonnes/ ha yield is obtained. The meadow orchard system is more beneficial than any other system. In this system, the production starts from 2^{nd} year itself giving an average yield of 13 tonnes/ ha which doubles during the next year. In the 3^{rd}/ and 5^{th} year yield is approximately 40 and 60 tonnes/ ha, respectively. This clearly shows that the meadow orchard system is better than other planting systems.

Research Methodology:

This study was conducted in Muzaffarnagar district of Western Uttar Pradesh. The district comprises of 9 blocks one of which, two blocks Baghara and Charthawal were selected for the study purposively on the basis of maximum area under guava cultivators and availability of maximum guava cultivators. From each block four villages were selected purposively thus the total 8 villages were selected for the investigation and from each village 10 respondents were selected purposively. Thus, the total sample size was of 80 respondents for the investigation. The data was collected through personal interview with the help of pre-tested interview schedule. The data was analyzed and used appropriate statistically techniques.

1. Tabular analysis:

For comparison and interpretation of various aspects, knowledge, adoption, and constraints responsible, tabular analysis was used.

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2. Percentage:

Simple comparison has been made on the basis of percentage. For obtaining percent, the frequency of a particular cell was multiplied by 100 and divided by the total number of orchardists in that particular category to which all of them belonged. The formula used to calculate the percentage is given below-

$$\text{Percentage} = \frac{\text{Frequency}}{\text{Number of respondent}} x\ 100$$

3. Mean (Average):

The mean ($\overline{X}$) was calculated by adding the total scores obtained by the respondents and divided it by the total number of respondents using the following formula:

$$(\overline{X}) = \frac{\sum X}{N}$$

Where,

($\overline{X}$) = Average or mean

$\sum x$ = Total number of scores obtained by respondents

N = Total number of respondent

4. Rank order:

The various ranks were given on the basis of highest to the lowest frequency.

5. Standard Deviation (SD):

S.D. is the square root of mean of the squares of all deviations, the directions being measured from the arithmetic mean of the distribution. It is commonly developed by symbol sigma (σ).

$$\sigma = \sqrt{\frac{1}{N}\sum_{i=1}^{N}(x_i - \overline{x})^2}$$

Where,

σ = Standard deviation

d = Deviation from variables mean

n = Total number of items

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Result and Discussion:

The Socio-economic status of the guava orchardists includes the personal profile of orchardists in terms of their age, education, caste, land holding size, housing pattern, social participation, annual income, marital status and occupation of the orchardists, under social and economic factors.

The findings related to different aspect of socio-economic characteristics were presented in Table-1.

Table-1: Distribution of the guava orchardists according to their socio-economic characters: **N = 80**

socio-economic characters of guava growers	**Particulars**	
	F	**P**
Age		
Young age group (below 30 years)	9	11.25
Lower medium age group (31-45 years)	28	35.00
Higher medium age group (46-60 years)	35	43.75
Old age group (above 60 years)	8	10.00
Education		
Illiterate	02	2.50
Can read only	02	2.50
Can read & write	06	7.50
Primary school	06	7.50
Junior High School	07	8.75
High school	18	22.50
Intermediate	13	16.25
Graduate	16	20.00
Post-graduate and above	10	12.50
Caste		

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Upper caste (General)	19	23.75
Middle caste (OBC)	56	70.00
Lower caste (SC/ST)	05	6.25
Marital status		
Married	73	91.25
Unmarried	7	8.75
Main Occupation		
Caste based occupation	-	-
Business	2	2.50
Cultivation (Agriculture)	73	91.25
Service	5	6.25
Type of family		
Nuclear family	32	40.00
Joint family	48	60.00
Size of family		
Small family (1-4 members)	15	18.75
Medium family (5-8 members)	39	48.75
Large family (More than 8members)	26	32.50
Social Participation		
No. member of any organization	15	18.75
Member of one organization	51	63.75
Member of more than one organization	10	12.50
Office Holder	7	8.75
Distinctive feature	6	7.5
Housing pattern		
Kachaha house	03	3.75
Mixed (Kachcha + Pucca)	14	17.50

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Pucca	64	78.75
Land holding		
Marginal farmers (below 01 ha.)	2	2.50
Small farmers (01-02 ha.)	7	8.75
Medium farmers (0 2-04 ha.)	30	37.50
Large farmers (above 0 4 ha.)	41	51.25
Family resources		
Up to 6 materials	2	2.50
6-10 materials	48	60.00
Above 10	30	37.50
Transportation facility		
Bullock cart (jhota- buggy)	65	81.25
Cycle	68	85.00
Motorcycle/Scooty/Scooter	72	90.00
Tractor trolly	51	63.75
Car/Jeep/Taxi	49	61.25
Any other (Bus/truck)	15	18.75
Farm machineries		
Below 6 (assets low)	35	43.75
Between (6-12 assets medium)	33	41.25
Above 12 (assets high)	12	15.00
Irrigation facilities		
Govt. electric tube well	2	2.50
Private electric tube well	55	68.75
Tube well diesel engine	5	6.25
Canal	12	15.00
Ponds	4	5.00
Any other specify	2	2.5

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Source of information		
Information low (below 6 sources)	8	10.00
Information medium (between 7-12 sources)	65	81.25
Information high (Above 12 sources)	7	8.75
Annual Income		
Below RS. 50,000	4	5.00
RS. 50,000- 1,00,000	9	11.25
RS. 1,00,000- 1,50,000	11	13.75
RS. 1,50,000-2,00,000	13	16.25
Above 2,00,000	43	53.75

The table-1, reveals that the majority of guava orchardists (43.75 per cent) were belonging to medium age group ranging between 46 to 60 years of age, the similar findings were reported by **Mehta and Sonawane (2012)**. The maximum numbers of respondents (22.50 per cent) were having educational status up to high school, the similar findings were reported by **Tekale and Gavit (2013)**. The most of the orchardists 70.00 per cent were belonging to other backward caste category, the similar findings were reported by **Singh *et al.* (2017)** and the most of the orchardists 91.25 per cent were married in the study area. The agriculture was the main occupation of the orchardists 91.25 per cent and (60.00 per cent) orchardists were living to joint family while, 48.75 per cent guava orchardists were belong to medium family category 5-8 members including their family. The maximum numbers of respondents (63.75 per cent) were having member of one organization. The majority of orchardists (78.75 per cent) were having pucca houses and (51.25 per cent) respondents were having (above 4 hac) of land in the study area. The majority of the respondents (60.00 per cent) were having medium level of family resources (between 6-10) and (90.00 per cent) respondents were having motor cycle/ scooty as transportation facility. The majority of the respondents (43.75 per cent) were having low level of farm assets (below 6) and majority of the orchardists (68.75 per cent) were having private electric tube well as a source of irrigation while, 81.25 per cent respondents were having medium level of information sources (between 7-12 Sources). The majority (53.75 per cent) guava orchardists annual income were of Rs. 2,00,000 similar findings were reported by **Tekale and Gavit (2013)**.

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Conclusion:

It may be concluded that most of the guava orchardists were belonging to higher medium age group, having education upto high school, belongs to backward caste, married, their main occupation was agriculture, living in jointly belong to medium family size, having pucca houses, most of them belongs to semi medium farmers category, most of them having membership of one organization, having medium level of sources of transportation, implements and information. Most of the guava orchardists annual income was upto 2 lacks.

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