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## Analysis personal, socio-economic and psychological characteristics of onion growers

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### Abstract

The present study was carried out in Patur and Balapur talukas of Akola district to study the personal, socio-economic and psychological characteristics of onion growers. An exploratory design of research was used. A sample of 120 onion growers as respondents were drawn and information obtained from them was considered for tabulation and analysis of data. Findings revealed that majority (45.83%) onion growers were middle aged; (30.00%) had middle school level of education; (39.17%) were having small land holding, 37.50% had income range from (Rs. 2,20001 to Rs. 3,90000), 40.83% had area from 1.01 to 2.00 ha under onion cultivation and 58.33% had more than 15 years of experience in onion cultivation. 60.83% respondents had medium level of extension contact; 43.33% were having medium level of scientific orientation. Further, the respondents had medium level of risk orientation (57.50%), medium level of innovativeness (49.17%) and medium level (59.17%) of economic motivation.

**Keywords:** Onion growers, characteristics, medium

### Introduction

Onion is the most important bulb crop and one of the most popular vegetable crops. Onion (*Allium cepa* L.) is a bulbous biennial herb of Alliaceae family. It has bisexual flowers and is highly cross pollinated crop. Onion is one of the most important vegetable crops cultivated extensively throughout the country under wide range of climatic conditions. It is semi perishable in nature and can be transported to a long distance without much injury. It behaves as an annual when grown for bulb production and biennial for seed production. Problem of weeds has now become a constant issue in agricultural production owing to its dynamic and resilient nature. Weeds compete for light, water, and nutrients with crop plants which results in substantial crop yield losses. Weed is a serious problem in crop production and responsible for making losses in crop field. They rob plant nutrient, water, fertilizer and solar energy which should be available to the main crop. They compete with the crop for space, harbor pest and diseases and ill effect on crop. They reduce quality of produce increase crop of labour and crop production. Therefore, minimizing the yield loss due to weeds in onion Dr. PDKV Akola has recommended the preventive, mechanical, and chemical practices for efficient management of weeds in onion crop, along with that there are also recommendation of precautions which are needed to taken by the farmers while handling of chemicals.

### Methodology

An exploratory design of social research was used to assess the collected data. The locale of the study was Akola district oh Maharashtra state. Two talukas namely, Patur taluka and Balapur taluka of Akola district and were purposively selected for the study as these talukas were having high area under onion cultivation than other talukas of Akola district. In Patur and Balapur talukas, 6 villages from each taluka were selected purposively based on high area under onion cultivation. Comprising total sample of 12 villages for the present study. Thus, from selected two talukas and selected 12 villages, 120 respondents were selected randomly and they were considered as sample respondents in the present study. The data was collected by personal interview, so as to get valid and complete responses. Keeping the objective of the study in view an interview schedule was developed, pre-tested and was personally administered. i.e. 10 respondents from each village were selected.

The collected data were carefully examined for completeness and correctness before tabulation. In case of some variables accepted standard classification was adopted and for remaining others, the mean and standard deviation were considered.

### Arithmetic mean

Arithmetic mean is calculated by summing of all individual score and dividing it by total number of cases.

The formula is,

$$\bar{X} = \frac{\sum X}{n}$$

Where,

$\bar{X}$  = Arithmetic mean

$\sum X$  = Sum of respondent's score

n = Number of respondents

### Standard deviation

It is the most stable index of variability which was employ in research studies. It is the measure of variability calculated around mean.

Standard deviation usually denoted by Greek word ( $\sigma$ ) that is sigma and the formula can be denoted as follows

$$\sigma = \frac{\sqrt{\sum (X_i - \bar{X})^2}}{n}$$

Where,

$\sigma$  = Standard deviation

$X_i$  = Score of each respondent

$\bar{X}$  = Mean

N = Number of respondents

### Results and Discussion

The results of all selected profile characteristics of onion growers are presented in Table 1 and described as under:

#### Age

The data presented in the Table.1 shows that, nearly half of the respondents (45.83%) were under middle age category, followed by old age category (35.00%) and young age category (19.17%). The middle age farmers are comparatively having free hand in financial affairs and they can take up an independent decision to implement their ideas. Farmers of middle age are usually enthusiastic and have moderate experience in farming and more working efficiency than older and younger growers. They also possess more physical vigour and have more family responsibilities than younger ones. The results were in line with the finding of Yewatkar (2019) [7] who reported that majority of the respondents were middle age category.

#### Education

It is evident from the Table1 that majority (30%) of the respondents were educated up to middle school level, followed by secondary school (23.33%), higher secondary school (19.17%), primary school (15.84%), college level

(08.33%) and only (03.33%) of them were illiterate, respectively. Thus, it is concluded that majority, of the respondents were educated up to middle school level. The possible reason for majority of the vegetable growers were educated up to middle school level was most of them were middle aged and older aged people, lack of awareness among elders in the village about education and lack of encouragement from their family members for further continuance of their education.

#### Land holding

From the Table 1, it was observed that, (39.17%) of the respondents belonged to small category of land holding (1.01 to 2.00 ha), while (25%) were belonged to both semi medium land holding (2.01 to 4.00 ha), while (07.50%) of respondents belonged to medium level of land holding (4.01 to 10.00 ha) and (03.33%) belonged to large land holding (above 10 ha). These findings were in agreement with Shukla (2018) [5].

#### Annual income

It can be seen from Table 1 that majority (37.50%) of the respondents had medium level income (up to Rs. 220001 to 90000), followed by high (Rs.390001 to 560000) annual income (30.83%) and low (31.67%) level of income. It is inferred from the above result that majority of the respondents had medium level of income. The probable reason might be that medium and high income groups will be more enthusiastic to improve upon their standard of living. These findings were in agreement with Shukla (2018) [5].

#### Area under onion

Form the Table 1, it was observed that, (40.83%) of the growers had (1.01 to 2.00 ha) area under onion. Followed by (35.83%) of the onion growers had (up to 1.00ha). Whereas, (14.17%) of the onion growers had (2.01 to 4.00 ha) of area under onion and (9.17%) of the growers had (4.01 to 10.00 ha) of land under onion.

#### Availability of irrigation

Form the Table 1, it was observed that (85.83%) of respondents had well as a availability of irrigation, followed by (7.50%) had tube well and (6.67%) of respondents had canal as a availability of irrigation. The results were in line with the finding of Yewatkar (2019) [7].

#### Experience in onion cultivation

Experience in onion cultivation was the number of years an individual onion grower has been practicing the onion cultivation. From Table 1, it was observed that, nearly (58.33%) of the respondents were having above 15 years of experience in vegetable cultivation, followed by (27.50%) of the respondents were having upto 10 years of experience and (14.17%) part of respondents were having from 10 to 15 years of experience in onion cultivation. Thus, it was concluded that majority of the onion growers were having more than 15 years of experience. These findings were in line with the findings of Vaishnavi (2018) [6].

#### Extension contact

Good extension contact helps in acquiring technological information regularly for use in their farm activities. It is apparent from Table 1 that majority (60.83%) of the respondents had medium level of extension contact, followed by 20.00 per cent of them had high level of extension contact and 19.17 per cent of them had low level of extension contact.

The growers majorly contact agriculture assistant, university scientist and private companies allied with the university. These findings were in line with the findings of Khating (2018) [3].

**Scientific orientation**

The majority of onion growers are getting oriented towards the use of scientific methods. It was revealed from the Table 1 that, the majority (43.33%) of the respondents had a medium category of scientific orientation. Whereas, (36.66%) of the respondents had high category of scientific orientation and only (20.00%) had a low category of scientific orientation. The results were in accordance with Ruchi Singh (2020) [4].

**Risk orientation**

In general, farmers are always facing risk and uncertainty in adopting practices. The successful onion growers are one who readily accepts to face risk and play with nature. It was revealed from the Table 1 that, the majority (57.50%) of the respondents had a medium category of risk orientation. Whereas, (32.50%) of the respondents had low category of risk orientation and only (10.00%) had a high category of risk orientation. The risk bearing capacity of individuals depends upon their personal, psychological and socio-economic

characteristics. The results were in accordance with Kadu (2017) [2].

**Innovativeness**

It indicates the willingness of an individual to know about new things, ideas and new practices related to weed management and to what extent he is going to apply this thing in his onion cultivation. From Table 1, it was concluded that; the majority (49.17%) of the respondents belongs to the medium innovativeness category, however, each of the (32.50%) and (18.33%) of the respondents belonged to the low and high innovativeness categories, respectively. The medium innovativeness of the respondents might be due to their middle age which must have restricted them to try out new things. The results were in accordance with the findings of Yewatkar (2019) [7].

**Economic motivation**

The farmers are generally oriented towards the achievement of maximum economic ends. It was revealed from the Table 1 that, the majority (59.17%) of the respondents had a medium category of economic motivation. Whereas, (29.17%) of the respondents had high level of economic motivation and only (11.67%) had a low level of economic motivation. The results were in accordance with the findings of Anita Bare (2017) [1].

**Table 1:** Socio economic profile of the onion growers

Variables	Category	Frequency	Percentage
Age	Young age (up to 35 years)	23	19.17
	Middle age (35 – 50 years)	55	45.83
	Old age (above 50 years)	42	35.00
Education	Illiterate	04	03.33
	Primary school (up to 4 <sup>th</sup> )	19	15.84
	Middle school (5 <sup>th</sup> – 7 <sup>th</sup> )	36	30.00
	Secondary school (8 <sup>th</sup> – 10 <sup>th</sup> )	28	23.33
	Higher secondary school (11 <sup>th</sup> - 12 <sup>th</sup> )	23	19.17
	College level (above 12 <sup>th</sup> )	10	08.33
	Land holding	Marginal (up to 1.00 ha)	30
Small (1.01 – 2.00 ha)		47	39.17
Semi medium (2.01 – 4.00 ha)		30	25.00
Medium (4.01 – 10.00 ha)		09	07.50
Large (Above 10.00 ha)		04	03.33
Annual income	up to Rs. 2,20000	38	31.67
	Rs. 2,20000 to Rs. 3,90000	45	37.50
	Rs.3,90001 to Rs. 5,60000	37	30.83
Area under onion	up to 1.00 ha	43	35.83
	1.01 to 2.00 ha	49	40.83
	2.01 to 4.00 ha	17	14.17
	4.01 to 10.00 ha	11	9.14
Experience in onion cultivation	Up to 10 years	33	27.50
	10 to 15 years	17	14.17
	Above 15 years	70	58.33
Extension contact	Low (up to 4.33)	43	19.17
	Medium (4.34 to 6.66)	51	60.83
	High (Above 6.66)	26	20.00
Scientific orientation	Low (up to 22.13)	24	20.00
	Medium (22.14 to 26.04)	52	43.33
	High (Above 26.04)	44	36.66
	Mean = 24.08	S.D. = 1.95	
Risk orientation	Low (up to 21)	39	32.50
	Medium (21 to 25)	69	57.50
	High (Above 25)	12	10.00
	Mean = 23.54	S.D. = 2.54	
Innovativeness	Low (Up to 5.59)	39	32.50
	Medium (5.60 to 7.17)	59	49.17
	Above (7.18)	22	18.33
	Mean = 6.38	S.D. = 0.79	

Economic motivation	Low (Up to 21.33)	14	11.67
	Medium (21.34 to 25.66)	71	59.17
	High (Above 25.66)	35	29.17

### Conclusion

The present study indicated that majority of the onion growers were in middle aged group, had middle school level education, belonged to small land holding category, with annual income up to (Rs.2, 20001 to Rs. 3, 90000) with having area under onion (up to 1.01 to 2.00 ha), having level of experience in onion cultivation with medium extension contact, scientific orientation, risk orientation, innovativeness and economic motivation respectively.

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