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Personal, socio-economic and psychological characteristics of vegetable growers in Kakinada district

R Ramani, P L R J Praveena, M Rama Devy and B Ravindra Reddy
Department of Agricultural Extension Education, Acharya N G Ranga Agricultural University, Agricultural College, Bapatla - 522101, Andhra Pradesh, India

ABSTRACT

The study conducted in Kakinada district of Andhra Pradesh to assess the personal, socio-economic and psychological characteristics of vegetable growers revealed that half of the respondents (50.83%) were middle aged, with majority (60.00%) possessing high farming experience of over 20 years. Nearly two-fifth of the respondents (44.17%) in the study area were illiterate. Most of the vegetable growers were small land holders (51.67%) who relied on lift irrigation (77.50%) and diversified their income through farm and non-farm (77.50%) activities. 64.17 per cent earn a high annual income exceeding one lakh rupees. Majority of growers exhibit medium levels of extension contact (68.34%), economic motivation (66.17%) and mass media exposure (64.17%) while 67.50 per cent possessed medium level of scientific orientation.

Key Words: *Psychological Characteristics, Personal, Socio-Economic and Vegetable growers*

Agriculture is the backbone of the Indian economy, supporting the livelihoods of a large population. Among its sub-sectors, vegetable cultivation plays a vital role in ensuring nutritional security, promoting crop diversification and generating higher income and year-round employment for small and marginal farmers. Its adaptability to diverse agro-climatic conditions, including water-scarce and marginal environments, further enhances its importance in sustainable agricultural development. India holds the second-highest global rank in vegetable production, yielding 197.23 million tonnes across 109 lakh hectares (GoI, 2021). The country maintains a leadership position in international markets, ranking first in ginger and okra production and second in potatoes, onions, cauliflower, brinjal and cabbage (Singh et al., 2021). Andhra Pradesh is a significant contributor to the national vegetable sector, covering 2.03 lakh hectares with a production of 3.4 million metric tons (Directorate of Economics and Statistics, AP, 2022-2023). This output secures the state a 4th-place in national productivity ranking. Locally, Kakinada district serves as a key agricultural hub, utilizing its fertile soil and favorable climate to maintain 2619.24 hectares of vegetable cultivation (Dept. of Horticulture, AP, Kharif seasonal report, 2025-2026).

MATERIAL AND METHODS

Ex-post facto research design was adopted in the present research study. For the investigation, Kakinada district was selected purposively. From the selected district, three mandals *viz.,* Pithapuram, Gollaprolu and Jaggampeta were selected purposively. From each mandal four villages *viz.,* Mangiturthi, Viravada, Virava and Pithapuram from Pithapuram mandal, Tatiparthi, Chendurthi, Kodavali and Vannepudi from Gollaprolu mandal and Seethanagaram, Gurrappalem, Katravulapalle and Ramavaram from Jaggampeta mandal were selected purposively. From each village, respondents were selected using proportionate random sampling based on acerage, making a sample size of 120 vegetable growers.

RESULTS AND DISCUSSION

The personal, socio-economic and psychological characteristics includes age, education, land holding, area under cultivation of vegetables, annual income, source of income, farming experience, extension contact, economic motivation and scientific orientation. The findings related to different aspects of personal, socio-economic and psychological characteristics were presented in Table 1.

Table 1. Distribution of vegetable growers according to their personal, socio-economic and psychological characteristics

S. No.	Variable	Category	Respondents	
			Frequency (F)	Percentage (%)
1	Age	Young age (35 and below)	14	11.67
		Middle age (36 to 50 years)	61	50.83
		Old age (51 years and above)	45	37.5
2	Education	Illiterate	53	44.17
		Functional literate	18	15
		Primary level	27	22.5
		High school	17	14.17
		College	3	2.5
		Graduation & above	2	1.67
3	Land holding	Marginal (<1.00 ha)	42	35
		Small (1.01 ha to 2.00 ha)	62	51.67
		Semi medium (2.01 ha to 4.00 ha)	14	11.67
		Medium (4.01 ha to 10.00 ha)	2	1.67
		Large (>10.01 ha)	0	0
4	Area under cultivation of vegetables	Low (<0.70 acres)	31	25.83
		Medium (0.70 to 3.18 acres)	62	51.67
		High (above 3.18 acres)	27	22.5
		Mean = 1.94		**SD = 1.25**
5	Irrigation facility	River/Canal	27	22.5
		Lift	93	77.5
6	Annual income	Low (upto Rs.80,000)	10	8.33
		Medium (Rs.80,001 – 1,60,000)	33	27.5
		High (Rs.1,60,001 and above)	77	64.17
7	Source of income	Only farm	27	22.5
		Both farm and non-farm	93	77.5
8	Farming experience	Low (<10 years)	5	4.17
		Medium (10-20 years)	43	35.83
		High (>20 years)	72	60
9	Extension contact	Low (<12.55)	19	15.83
		Medium (12.55 to 17.49)	82	68.34
		High (>17.49)	19	15.83
		Mean = 15.02		**SD = 2.47**
10	Economic motivation	Low (<16.33)	27	22.5
		Medium (16.33 to 23.13)	80	66.67
		High (>23.13)	13	10.83
		Mean = 19.73		**SD = 3.40**
11	Mass media exposure	Low (<6.04)	22	18.33
		Medium (6.04 to 10.62)	77	64.17
		High (>10.62)	21	17.5
		Mean = 8.33		**SD = 2.29**
12	Scientific orientation	Low (<16.27)	24	20
		Medium (16.27 to 23.27)	81	67.5
		High (>23.27)	15	12.5
		Mean = 19.77		**SD = 3.50**

Age

The findings from the Table 1 revealed that, half (50.83%) of the vegetable growers belonged to middle age group followed by old age (37.50%) and young age (11.67%) groups. The probable reason for this trend may be that younger farmers were more engaged in non-agricultural activities, while older farmers contributed their experience. Middle-aged farmers showed greater interest in vegetable cultivation due to its year-round income potential. The findings were in line with the findings of Mahindrathne and Min (2019), Suman (2019) and Chethana (2020).

Education

Education was the formal schooling attained by the individual. On the basis of education, the vegetable growers were grouped into six categories namely illiterate, functional literate, primary level, high school, college and graduation & above. The results presented in Table 1 indicated that nearly-half (44.17%) of the vegetable growers were illiterate followed by primary level (22.50%), functional literate (15.00%), high school (14.17%), college (2.50%) and 1.67 per cent were graduates & above. This trend may be attributed to limited educational opportunities, low socio-economic status, and lack of awareness about formal education during the early years of middle-aged and older respondents. Similar findings were reported by Mou (2015).

Land Holding

Land holding is the total operational land available to the farmer and determines the scale of agricultural activities and resource availability. It is clear from Table 1 that, half of the vegetable growers (51.67%) had small land holding followed by marginal (35.00%), semi medium (11.67) and medium land holdings (1.67%). None of the vegetable growers belonged to large land holding category. The trend may be attributed to the increasing prevalence of nuclear families, leading to land fragmentation and smaller holdings, while the remaining farmers continue traditional agriculture as their primary livelihood across generations. The outcome of the findings is in line with the result of Suman (2019).

Area under cultivation of vegetables

Area under vegetable cultivation indicates the extent of land allocated for vegetable production by the farmers. The findings from Table 1 revealed that, nearly-half of the respondents (51.67%) had medium area under vegetable cultivation followed by low (25.83%) and 22.50 per cent had large area under cultivation of vegetables. This is due to high cost of vegetable cultivation, which limited the area under vegetables, while their year-round income potential encouraged farmers to cultivate them on a moderate scale. These findings were in agreement with the findings of Potsangbam (2017) and Rai (2018).

Irrigation Facility

It is the source of water available for crop production and is essential for successful vegetable cultivation. From the Table 1, it is clear that majority (77.50%) of the vegetable growers depended on lift irrigation followed by 22.50 per cent respondents depended on river/canal for irrigation. his trend may be attributed to the study area's assured irrigation through canals and lift irrigation, providing farmers with reliable water sources for crop cultivation. Similar findings were reported by Potsangbam (2017).

Annual Income

Annual income represents the total earnings of the respondents from various sources over a year and reflects their economic status. Respondents were categorized based on equal interval method. It is clear from Table 1, that majority (64.17%) of the vegetable growers belonged to high annual income category while 27.50 per cent and 8.33 per cent of the vegetable growers belonged to medium and low annual income categories respectively. This is due to commercial nature of vegetable cultivation, which offers higher returns than field crops and benefits from continuous market demand, resulting in higher annual income. The findings were in line with the findings of Suman (2019) and Ashok (2020).

Source of Income

Source of income refers to the major means through which respondents earn their livelihood. From the data presented in table, it can be inferred that source of income for majority (77.50%) of the vegetable growers was both farm and non-farm activities while farming alone was the source of income for 22.50 percent respondents. The findings indicated that vegetable growers diversified their income through both farm and non-farm activities to enhance

household earnings and reduce economic risk. Similar findings were reported by Odoh *et al*. (2019).

Farming Experience

The number of years a farmer has been engaged in agricultural activities is referred as farming experience. From the analysis of data depicted in Table 1, it could be inferred that majority of the respondents (60.00%) had high farming experience followed by medium (35.83%) and low (4.17%) farming experience. The probable reason for this trend might be attributed due to fact that predominance of middle- and old-aged farmers, who had been engaged in farming from an early age and depended on agriculture as their primary source of livelihood, resulting in high farming experience. Similar findings were reported by Rai (2018), Mahindarathne and Min (2019) and Suman (2019).

Extension Contact

It denotes the extent of interaction between farmers and extension personnel or agricultural development agencies for obtaining technical information. The results presented in Table 9 revealed that majority (68.34%) of the respondents had medium level of extension contact, while an equal proportion of respondents (15.83%) had low and high levels of extension contact. This is due to predominance of middle- and old-aged farmers with low education, whose extension contact was mainly limited to nearby AEOs and AOs for subsidies and e-crop booking. Easy access to input dealers, family and friends for agricultural information also contributed to the majority having a medium level of extension contact. The results were in line with Maratha (2015) and Potsangbam (2017).

Economic Motivation

The desire of farmers to improve their income and economic well-being through farming activities. From Table 1 it could be inferred that majority (66.67%) of the respondents have medium economic motivation while 22.50 per cent and 10.83 per cent of the vegetable growers had low and high economic motivation respectively. This trend may be attributed to the respondents strong inclination towards increasing farm income and improving their standard of living, despite constraints such as small landholdings, fluctuating market prices, high input costs and production risks, resulting in a medium level of economic motivation. Similar findings were revealed by Rathod *et al.* (2013), Jagdishbhai (2015) and Kumar (2017).

Mass Media Exposure

Mass media exposure refers to the extent to which respondents use different mass media channels for obtaining agricultural information. From the table, it can be concluded that majority (64.16%) of the vegetable growers had medium mass media exposure followed by low (18.33%) mass media exposure and high (17.50%) mass media exposure. This trend may be attributed to the low literacy levels of respondents, which limited the use of print media, while television and mobile apps were used to access cultivation information, resulting in a medium level of mass media exposure. The present findings were in agreement with Maratha (2015) and Rameshwar (2018).

Scientific Orientation

The distribution of vegetable growers according to their scientific orientation is depicted in Table 12. From the findings of above table, it can be inferred that majority (67.50%) of the vegetable growers had medium level of scientific orientation whereas 20.00 per cent and 12.50 per cent of the respondents had low and high levels of scientific orientation. This trend may be attributed to the respondents' high farming experience, leading them to rely on traditional practices along with selected scientific recommendations. Low education, inadequate training, and limited interaction with scientists and extension personnel also contributed to their medium scientific orientation. The results were in agreement with Rai (2018) and Ashok (2020).

CONCLUSION

The study revealed that most of the vegetable growers were middle-aged, illiterates, possessed small land holdings, cultivated vegetables on a medium area and depended primarily on lift irrigation. Majority of them had high annual income through diversification of income from both farm & non-farm and high farming experience while medium levels of extension contact, economic motivation, mass media exposure and scientific orientation.

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