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Socio-economic profile of sugarcane growers

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Abstract

The present study was conducted in athani taluk of Belagavi District in Karnataka state to know the socio-economic profile of sugarcane growers. A sample of 150 sugarcane growers was selected by using simple random technique from three villages of athani taluk. The results revealed that majority of the sugarcane growers belonged to middle aged (60.00%), followed by 33.33 percent of the sugarcane growers educated up to high school, 46.67 percent of respondents belonged to medium level of experience in sugarcane cultivation, 30.00 percent of the sugarcane growers belonged to semi-medium land holding category, 60.00 percent of the respondents belonged to medium extension participation category, 46.67 percent of the sugarcane growers belonged to medium extension contact category, 40.00 percent of the sugarcane growers belonged to medium mass media exposure category, 36.00 percent of sugarcane growers belonged to low innovative proneness categories, 36.67 percent of growers belonged to high achievement motivation category, 50.00 percent of sugarcane growers were belonged to low economic motivation category, 36.67 percent of sugarcane growers belonged to medium risk orientation category and 43.33 percent of the sugarcane growers belonged to high management orientation category. 40.00 percent of the sugarcane growers belonged to medium scientific orientation category. 42.00 percent of the sugarcane growers belonged to medium cosmopolitanism category.

Keywords: Sugarcane growers, socio-economic, recommended cultivation practices, extension activities

Introduction

Sugarcane (*Saccharum officinarum* L.) is an important commercial crop of the world and is cultivated in about seventy five countries, the leading countries being Brazil, India, China and Thailand. The sugar industry plays an important role in the agricultural economy of India. Today sugarcane cultivation and sugar industry stands as supporting pillars of Indian economy. India occupies the second rank in production of sugarcane in the world. The area under sugarcane in India is 46.02 lakh hectares during the year 2019-20 and production of 370.50 million tonnes and yield is 80497 kg/hectare. India's annual consumption of sugar is around 28.00 million tonnes. (Anon, 2019-20) [2].

Karnataka is blessed with a favourable climatic conditions for the cultivation of sugarcane, hence the area under sugarcane has expanded to 6.91 lakh ha with a production of 381.81 lakh tonnes and productivity of 89000 kg/ha (Anon, 2019-20) [2]. The leading sugarcane growing districts are Belagavi, Bagalkot, Mandya and Gulbarga. Belagavi being one of the leading sugarcane growing district in Karnataka has an area of 2.21 lakh ha under sugarcane with production of 15.33 lakh tonnes and productivity of 102 t/ha. (Anon, 2017-18) [1].

Materials and Methods

The present study was conducted in Athani taluk of Belagavi District based on maximum area under sugarcane cultivation. Three villages were selected from athani taluk based on the criterion of maximum area under sugarcane. From each village, a list of sugarcane growers was prepared with the help of Agricultural Assistants and 50 respondents from each village were selected by using simple random technique. Thus making a total sample of 150. Data were collected by using structured pre-tested interview schedule by personal interview method.

Results and Discussion

It can be observed from table 1 that majority (60.00%) of the respondents were in middle age group (between 31 to 50 years) followed by 23.33 percent and 16.67 percent of the respondents belonged to old (51 years and above) age group and young (between 18 to 30 years) age group respectively. The probable reason might be that usually farmers of middle age were enthusiastic and having moderate experience in farming and have more work efficiency than younger and older ones. Further, middle aged farmers possess more physical

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vigour and more family responsibilities than younger ones. Similar results were reported by Sunil Kumar (2004) ^[11] and Vandana (2016) ^[12].

With regard to level of education, it can be observed from Table 1 that One-third (33.33%) of the respondents had high school education and nearly one-third (30.00%) had middle school, whereas 18.00 percent and 6.00 percent of respondents had primary school education and higher secondary education respectively. Negligible percentage (2.00%) of respondents had completed their graduation and only 10.67 percent of the respondents were illiterate. The results could be attributed to the availability of free basic education and good educational infrastructure. Few of them opted higher education reflecting on their affordability and interest to learn more and gain knowledge. The distance of higher education study centers from village might have prevented the parents in providing higher education to their children. Similar findings were reported by Karpagam (2000) ^[6] and Vandana (2016) ^[12].

The data presented in Table 1 revealed that less than half of (46.66%) of the respondents had medium level of farming experience (between 17 to 20 years). However, 26.67 percent each of the respondents had both low (less than 17 years) and high (20 years and above) level of farming experience. Average farming experience of the respondents was 18.57 years. As majority of the respondents belonged to medium age to old age group and they might also have resumed farming at early age resulting in more number of years of farming experience. The results were in line with the results of Vandana (2016) ^[12] and Priyanka (2016) ^[9].

The distribution of respondents according to land holding as presented in Table 2 revealed that nearly one-third (30.00%) of the respondents were semi medium farmers with land holdings ranging from 5.1 to 10 acre and 26.67 percent of the respondents were small and marginal farmers with 2.51 to 5 acre and up to 2.5 acre of land holding respectively. Only 16.67 percent of the respondents were medium farmers with land holdings of 10 to 25 acre and none of the respondents had land holdings of more than 25 acre. Average land holding size of respondents was 6.47 this could be attributed to inheritance of land from their ancestors who might have transferred from generation to generation. These findings are more or less similar to findings of Ninga Reddy (2005) ^[8] and Mohanakumar (2018) ^[7].

The results depicted in Table 3 revealed that 60.00 percent of the respondents had medium level of extension participation. However, 20.00 percent each of the respondents had both low and high level of extension participation. The average extension participation score was 4.13. Participation in extension activities not only gives first-hand information but helps an individual to understand, discuss, share his/her problems with other growers and experts of various organizations and professions. Participation in group discussions, exhibitions, workshops, field visits and demonstrations helps an individual in believing what is seen and apply the technology on his farm or field. The results are in accordance with the findings of Priyanka (2016) ^[9].

As per the Table 3, less than half of the respondents (46.67%) had medium level of extension contact, whereas 36.67 percent of the respondents had low level of extension contact. Only 16.67 percent of the respondents had high level of extension contact. The probable reasons could be lack of time to approach extension functionaries especially during crop

season, inaccessibility of extension functionaries or lack of interest among farmers to know about innovations. This finding is confirmative with the findings of Mohanakumar (2018) ^[7].

The results depicted in Table 3 revealed that 40.00 percent of the respondents had medium mass media exposure, while 33.33 percent and 26.67 percent of respondents had low and high level of mass media exposure, respectively. The possible reasons for this might be lack of time and interest, lack of practical applicability, monotonous agricultural information and whenever they are in need of it they would borrow it from the other subscriber farmers. The findings of the result are similar to the findings of Vinayak Narayan Nayak (2014) ^[13]. It is found from Table 3 revealed that less than half (42.00%) of the respondents had medium level of cosmopolitanism, while 34.00 percent and 24.00 percent of the respondents had low and high level of cosmopolitanism, respectively. The average cosmopolitanism score was 21.43. Cosmopolitanism is the degree to which a farmer is oriented outside the community to seek information. They would travel frequently to nearby towns and cities for marketing the produce and also nearness of the town may be one of the reason. Hence, the cosmopolitanism level was medium and this result was in support with the studies of Priyanka (2016) ^[9] and Sowjanya (2017) ^[10].

The data presented in Table 4 revealed that more than one-third (36.00%) of the respondents had low innovative proneness, while 35.33 percent and 28.67 percent of respondents had high and medium level of innovative proneness, respectively. It was observed that fifty percent of the respondents had medium to high level of innovative proneness. This shows that nearly 50 percent of the respondents were prone innovations and such individuals could become the prospective adopters of SRI paddy cultivation in near future. Fairly high level of education also be the reason behind this. These findings are supported with the results Vandana (2016) ^[12].

It is evident from Table 4 indicated that of 36.67 percent of respondents had high achievement motivation, while 32.67 percent and 30.00 percent of the respondents had low and medium levels of achievement motivation, respectively. This might be due to the reason that sugarcane growers have goal of obtaining more yields. In this process he recognizes the importance of latest technical knowledge which paves way to the adoption of new technology. Therefore it can be concluded that sugarcane growers with high levels of achievement motivation mostly adopt new ideas or skills better than others. Biradar (2002) ^[3] reported similar findings. It is found from Table 4 revealed that half (50.00%) of the respondents had low economic motivation followed by 36.67 percent of respondents had high economic motivation and only 13.33 percent of respondents had medium level of economic motivation. The average economic motivation score was 25.67. Reasons could be small size of land holdings, investment inadequacy, poor techniques of production followed by them, lack of irrigation facilities, inadequate non-farm services etc. These findings are supported with the results of Mohanakumar (2018) ^[7].

It is observed from Table 4 that more than one-third (36.67%) of the respondents had medium level of risk orientation. Whereas, 33.33 percent of them had high level of risk orientation and 30.00 percent had low levels of risk orientation. The average risk orientation score of the

respondents was 24.50. Small land holdings, low income, less education level and old age could be the reasons for present finding. The results are in line with the findings of Mohanakumar (2018) [7].

The results depicted in Table 4 revealed that 43.33 percent of respondents had high management orientation, while 36.67 percent and 20.00 percent of the respondents had low and medium levels of management orientation, respectively. The average management orientation score of the respondents was 58.53. The probable reason may be that management orientation is the ability of the sugarcane growers in scientific farm management in planning, production and marketing. As the farming is always disturbed and determined by the vagaries of the nature, much careful planning and management is necessary for the better yields. These findings are in conformity with the findings of Chandrani Saha (2008) [4]

The results depicted in Table 4 revealed that 40.00 percent of the respondents had medium level of scientific orientation, while 33.33 percent and 26.00 percent of the respondents had high and low level of scientific orientation, respectively. The average scientific orientation score was 16.03. Scientific orientation helps an individual to understand the ‘pros’ and ‘cons’ of a technology. It helps him/her to judge, study and influences his/her decision making whether to accept, reject or apply the technology with necessary modifications on his/her farm/field. These findings are supported with the results of Devaraja (2011) [5] and Sowjanya (2017) [10]

It is found from Table 4 revealed that less than half (42.00%) of the respondents had medium level of cosmopolitaness, while 34.00 percent and 24.00 percent of the respondents had low and high level of cosmopolitaness, respectively. The average cosmopolitaness score was 21.43. Cosmopolitaness is the degree to which a farmer is oriented outside the community to seek information. They would travel frequently to nearby towns and cities for marketing the produce and also nearness of the town may be one of the reason. Hence, the cosmopolitaness level was medium and this result was in support with the studies of Priyanka (2016) [9] and Sowjanya (2017) [10].

Table 1: Personal characteristics of sugarcane growers

(N=150)				
SI. No	Independent variables	Category	Frequency	Percent
1	Age	Young (18 to30)	25	16.67
		Middle (31 to 50)	90	60.00
		Old (51 and above)	35	23.33
Mean = 43.46, SE = 0.72				
2	Education	Illiterate (Cannot read and write)	16	10.67
		Primary education (1 to 4)	27	18.00
		Middle school (5 to 7)	45	30.00
		High school (8 to 10)	50	33.33
		Higher secondary (11 to 12)	9	6.00
Mean = 2.12, SE = 0.09				
3	Farming experience (years)	Low (<17.05)	40	26.67
		Medium (17.05 to 20.08)	70	46.67
		High (>20.08)	40	26.67
Mean = 18.57, SD = 3.57, SE = 0.29				

Table 2: Economic characteristics of sugarcane growers

(N=150)				
SI. No	Independent variables	Category	Frequency	Percent
1	Land holding	Marginal farmers (Up to 2.5)	40	26.67
		Small farmers (2.51 to 5.00)	40	26.67
		Semi-medium farmers (5.01 to 10.00)	45	30.00
		Medium farmers (10.01 to 25.00)	25	16.67
		Big farmers (Above 25)	0	0.00
Mean = 6.47, SE = 0.40				

Table 3: Communication characteristics of sugarcane growers

(N=150)				
SI. No	Independent variables	Category	Frequency	Percent
1	Extension participation	Low (<3.31)	30	20.00
		Medium (3.31 to 4.96)	90	60.00
		High (>4.96)	30	20.00
Mean =4.13, SD = 1.93, SE = 0.15				
2	Extension contact	Low (< 4.17)	55	36.67
		Medium (4.17 to 6.03)	70	46.67
		High (>6.03)	25	16.67
Mean = 5.10, SD = 2.19, SE = 0.17				
3	Mass media exposure	Low (<5.68)	50	33.33
		Medium (5.68 to 7.19)	60	40.00
		High (>7.19)	40	26.67
Mean = 6.43, SD = 1.77, SE = 0.14				
4	Cosmopolitaness	Low (<20.30)	51	34.00
		Medium (20.30 to 22.57)	63	42.00
		High (>22.57)	36	24.00
Mean = 21.43, SD = 2.68, SE = 0.21				

Table 4: Psychological characteristics of sugarcane growers

(N=150)				
SI. No	Independent variables	Category	Frequency	Percent
1	Innovative proneness	Low (<14.46)	54	36.00
		Medium (14.46 to 15.42)	43	28.67
		High (>15.42)	53	35.33
Mean = 14.94, SD = 1.13, SE = 0.09				
2	Achievement motivation	Low (<26.52)	49	32.67
		Medium (26.52 to 28.51)	46	30.67
		High (>28.51)	55	36.67
Mean = 27.51, SD = 2.33, SE = 0.19				
3	Economic motivation	Low (<24.94)	75	50.00
		Medium (24.94 to 26.39)	20	13.33
		High (>26.39)	55	36.67
Mean = 25.67, SD = 1.71, SE = 0.13				
4	Risk orientation	Low (<23.59)	45	30.00
		Medium (23.59 to 25.41)	55	36.67
		High (>25.41)	50	33.33
Mean = 24.50, SD = 2.15, SE = 0.17				
5	Management orientation	Low (<56.98)	55	36.67
		Medium (56.98 to 60.09)	30	20.00
		High (>60.09)	65	43.33
Mean = 58.53, SD = 3.66, SE = 0.29				
6	Scientific orientation	Low (<15.63)	40	26.67
		Medium (15.63 to 16.44)	60	40.00
		High (>16.44)	50	33.33
Mean = 16.03, SD = 0.95, SE = 0.07				

Conclusion

Most of the sugarcane growers belonged to middle age and acquired education up to high school level. Maximum of them having semi-medium size of land holding and medium categories with respect to extension participation, extension contact, mass media exposure, risk orientation, scientific orientation and cosmopolitaness. It was found that sugarcane growers belonged to possess low group with respect to innovative proneness and economic motivation. Therefore, there is a need to create awareness generation campaign to educate the sugarcane growers. Hence efforts should be undertaken by the Government, Agricultural Universities and other extension agencies in providing information on improved sugarcane production technologies so that they could bring about change in their living and improve the socio-economic status of sugarcane growers.

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