

Original Research Article
Sugarcane growers' socio-economic and psychological attributes in the Balrampur area of Uttar Pradesh, India

ABSTRACT

Sugarcane is cultivated mainly for its juice from which sugar, jaggery, and sugar palm are processed. Most of the world's sugarcane is grown in subtropical and tropical regions. Sugarcane is an established source of sugar and the current benchmark for efficient biofuel production is the first generation feedstock. The present study was conducted to measure the socioeconomic and psychological characteristics of sugarcane growers in the Balrampur district, which was purposively selected. The study was conducted in 24 selected villages in Tulsipur tehsil of the Balrampur district of Uttar Pradesh. The samples consisted of 316 respondents who were selected through the proportional random sampling method. The respondents were personally interviewed. Data was collected through a pre-structured and pre-tested interview schedule and the study on socio-economic characteristics showed that most of the respondents (51.58%) were middle-aged. Respondents were illiterate (62.78%), they took up agricultural farming as their primary occupation and had operational land up to 1 hectare with an income level of 750000/- It was also revealed that most of the respondents sometimes took part in social participation, whereas (67.08%) had medium-level participation in sugarcane grower extension programs, while 33.86 and 44.30 per cent of them had medium and low levels of innovation respectively. (58.86%) of the respondents had moderate cosmopolitiness. Respondents try to get more information and try new ideas and techniques within their budget and limits as well as farmers who are prone to innovations try to collect information about new technology from different aspects, they want to learn new farming methods, improve production and technologies and adopt those technologies at a faster rate with maximum accuracy.

Key words: Sugarcane, socio- economic, attributes, growers, psychological

Introduction:-

Comment [a1]: Duration of the study?

Comment [a2]: Average? Currency units?

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Comment [a4]: Did you mean cosmopolitanism?

The cultivation of sugarcane in India dates back to the Vedic period. The earliest mention of sugarcane cultivation is found in Indian writings of the period 1400 to 1000 B.C. It is now widely accepted that India is the original home of *Saccharum* species. *Saccharin Barberi* and Polynesian group of the island especially New Guinea is the center of origin of *S. officinarum*. It belongs to the family Gramineae (Poaceae), class monocotyledons, and order glumaceae sub-family panicoidae, tribe Andriopogoneae, and sub tribe saccharininea. The cultivated canes belong to two main groups: (a) thin, hardy North Indian types *S.barberi* and *S.Sinense* and (b) thick, juicy noble canes *Saccharum officinarum*. A highly prized cane is *S. officinarum*.

Comment [a5]: You may need to italicize Botanical names (Conventional)

Comment [a6]: Source? The whole paragraph has no citation, indicate sources of the information.

Comment [a7]: Consider using standard English

Sugarcane (*Saccharum officinarum*) family Gramineae (Poaceae) is a widely grown crop in India. It helps in providing employment to many lakh people, directly or indirectly, apart from making a significant contribution to the national exchequer. The sugarcane-producing countries of the world extending from tropical to sub-tropical regions between latitudes 36.7°N and 31.0°S of the equator. Sugarcane originated in New Guinea where it has been known for thousands of years. Sugarcane plants are cultivated in Asia and the Indian subcontinent through human migration. Here, in India, it cross-breeds with some of the wild sugarcane varieties we know today.

Comment [a8]: Source? Citation required

Sugarcane is considered one of the main and most eco-friendly crops of Indian agriculture. Sugarcane is the most prominent sector of the economy of Balrampur district, as more than 50 percent of Balrampur's population is engaged in agriculture and allied activities for their livelihood. The policy and objective of the government are to ensure stability in agricultural production and increase agricultural production to meet the food requirement of the growing population and meet the raw material needs of agro-based industries, thereby providing employment opportunities to the rural population. Keeping this in mind, this study has been done to know the socio-economic status and psychological characteristics of sugarcane growers.

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Research Methodology:-

Balrampur district is one of the cities in the Indian state of Uttar Pradesh, a district adjacent to the country of Nepal and is a part of the Devipatan division as well as the historical Awadh Regions (Source?). Sugarcane occupies a prominent position in the area, production and productivity of important crops grown mainly in Balrampur district. This study was done to find out the socio-economic status and psychological attributes of the farmers because there are large number of sugarcane farmers. Balrampur district is divided into nine blocks, out of which 2 blocks were randomly selected for the study. A total of 316 respondents were selected from twenty-four

villages selected using the proportionate random sampling technique. The study attempted to understand the socio-economic status and psychological characteristics of the respondents such as age, educational status, occupational status, type of family, area of land holding, annual income, experience in paddy cultivation, social participation, extension agency linkage etc. Mass media exposure, decision making ability, information sharing behavior, risk orientation and novelty were considered for the present study. Percentage analysis and cumulative frequency method were used to analyze and interpret the data. The formula used to calculate and analyzed the data, is given below-

$$\text{Percentage} = \frac{P \times X}{N \times 100} \quad \text{Mean Score} = \frac{\text{Total score a particular item}}{\text{Number of the respondents}}$$

$$\text{Arithmetic mean} = \frac{\sum x}{n}$$

Comment [a12]: State all the variables studied

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Results and Discussions:-

Presents the findings of the study, as well as related analysis and discussion, in light of the study's objectives-

Table --1 Age wise distribution of the respondents N=316

S.No.	Categories	Frequency	Percentage
A.	Age		
1.	Young (Up to 35)	69	21.84
2.	Middle (36 to 55)	163	51.58
3.	Old (Above 55)	84	26.58
B.	Education		
1.	Illiterate	74	23.42
2.	literate (Can read and write)	23	7.28
3.	Primary	49	15.51
4.	Junior High School	53	16.77
5.	High School	55	17.40
6.	Intermediate	43	13.61
7.	Graduate and above	19	6.01
C.	Occupation		
1.	Agriculture+ Horticultural	145	45.85
2.	Agriculture + Animal husbandry	120	37.93

3.	Agriculture+ Fisheries	28	8.85
4.	Agriculture + Poultry	23	7.27
D.	Annual income		
1.	Low(up to Rs. 75,000)	146	46.20
2.	Medium (Rs. 75,001 to 1,50,000)	108	34.17
3.	Large (above Rs. 1,50,000)	62	19.62
E.	Land holding		
1.	Up to 1 ha. (Marginal)	160	50.63
2.	1 – 2 ha.(Small)	112	35.44
3.	Large (Above 2 ha.)	44	13.93

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Particulars		Social participation					
		Regular		Occasional		Never	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1.	Cooperative Society	117	37.04	129	40.82	70	22.15
2.	Village Panchayat	101	31.96	195	61.70	20	6.32
3.	Social Organization	107	33.86	165	52.21	44	13.92
4.	Cultural Organization	26	8.22	110	34.81	180	56.96
5.	Religious Organization	86	27.21	61	19.30	169	53.48
6.	Educational Organization	90	28.48	173	54.74	53	16.77

Extension contacts		Contacts					
		Regular		Occasional		Never	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
1.	Village Development Officer	139	43.98	129	40.82	48	15.18
2.	Additional Development Officer	71	22.46	154	48.73	91	28.79
3.	Block Development Officer	36	11.39	164	51.89	116	36.70
4.	Subject Matter Specialists	109	34.49	119	37.65	90	28.48
5.	District Agriculture Officer	41	12.97	168	53.16	107	33.86

From the above table, it is clear that (51.58%) of the respondents were in middle age group. The older age group (26.58%) was followed by the respondents, while the younger age group (21.84%) was followed by the respondents. Whereas the table also shows that most of the farmers were not able to get higher level of education. Thus (23.42%) respondents were completely illiterate while (7.28%) respondents were literate but could read and write and (15.51%) respondents were primary school passed while (16.77%) respondents were junior high school while (17.40%) respondents were high school (13.61%) respondents were educated up to intermediate level and only (6.01%) respondents were graduate and above. From the above data it can be concluded that most of the farmers were from poor and low educational background but they are engaged in improving their educational status in the study area. The results of the present study are consistent with the results of Pal et.al. (2017). The table shows that among the respondents (45.85%) were engaged in agriculture + horticulture as their main occupation for their livelihood, followed by (37.93%) and (8.85%) the respondents in agriculture + animal husbandry and agriculture + fisheries were engaged. It can be said that most of the respondents took agriculture + horticulture and agriculture + animal husbandry as their main occupation for their livelihood. The possible reason for this finding could be to adopt horticulture and animal husbandry along with agriculture to achieve higher annual income and better environmental conditions as well as resource availability for these enterprises. On the other hand, if we talk about the income of farmers from the above table, then it is clear from the table that (46.20%) respondents Rs. 75000/- were in the low annual income group, whereas (34.17%) the respondents were in the middle level of the annual income group of Rs. 75001 to 1,50,000. Whereas (19.62%) of the respondents were largely in the annual income group above Rs 1,50,0000. Thus, the table shows that most of the respondents were living in a low level of income, as a result of which their families were not in good condition. As per the size of sugarcane holdings, it is clear that (50.63%) respondents were marginal farmers while (35.44%) respondents were small farmers while (13.93%) respondents were from large farmers. It is clear that most of the sugarcane growers belonged to the category of marginal farmers, followed by small and medium farmers respectively. Similar findings also reported by Zaidi et al. (2014)

The above table shows the social participation of farmers. It is clear from this that farmers (37.04%) regularly visited the co-operative society to collect agricultural information, (40.82%) occasionally visited the co-operative society, and (22.15%) to collect agricultural information. used to come. Never used to come to the co-operative society for this. While (61.70%) visited the Gram Panchayat occasionally, (31.96%) the beneficiaries regularly visited the Gram Panchayat

Comment [a14]: Simply give the findings. Avoid the word "it is clear"

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Comment [a16]: How did you establish this? It is not clear from your methodology. Explain how you went about establishing this in your methodology.

Comment [a17]: You need to explain this based on your data

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Comment [a19]: Findings?

Comment [a20]: Is horticulture different from Agriculture?

Comment [a21]: Avoid the words "it is clear"

Comment [a22]: Explain why you classified Rs 75000 as low income. Any Reference? Cite.

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Comment [a25]: Briefly explain the findings of Zaidi et al. in relation to your findings

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for information. It was found that (33.86%) respondents regularly visited social organizations for information, while (52.21%) respondents occasionally visited social organizations, while (56.96%) never visited cultural organizations. did not do. did not do. (34.81%) respondents occasionally visited cultural organizations for information. It is also clear from the table that (28.48%) respondents regularly participated in educational organizations, while (54.74%) respondents sometimes attended educational organizations, while (16.77%) never attended educational organizations for information. Also evident from the above table is that (43.98%) respondents were regularly meeting with Village Development Officer in the study area whereas (40.82%) respondents met with VLW often while (15.18%) never meet with the Village Development Officer of the village. It was also found that in the study area, (22.46%) respondents were regularly meeting with Additional Development Officer while and (48.73%) meet him often and (28.79%) never meet with the Additional Development Officer of their village. (11.39%) of respondents were meeting with Block Development Officer regularly while (51.89%) met with him on often basis whereas 36.70 per cent never met with Block Development Officer of their block. In the case of Subject Matter Specialists, (34.49%) of respondents met with them regularly, (37.65%) met him on an often basis while (28.48%) never met with them. (12.97%) of respondents met with the District Agriculture Officer of their district regularly, (53.16%) met him often basis whereas (33.86%) never met with him. Ituma and Ukah (2017) also reported by the socio-economic characteristics of sugarcane growers.

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Comment [a30]: What is VLW?

Comment [a31]: Grammar, consider re-writing this

Comment [a32]: Are there no ladies?

Comment [a33]: Explain this clearly

Comment [a34]: Explain the tools used to assess these variables in the methodology section

Comment [a35]: Cite the source of the definition and explain your operational definition.

Comment [a36]: Explain to readers why the three attributes (innovativeness, scientific orientation and cosmopolitanism) have been treated as psychological characteristics in this study.

Comment [a37]: Spelling, check

Psychological Characteristics of the respondents:-

Psychological Characteristics refers to particular feature or quality of a person, animal, or other unit of interest, especially any of the enduring qualities or traits that define an individual's nature or personality in relation to others (Source ?).

Table -2 Distribution of respondents according to their Psychological characteristics, N= 316

S.No.	Categories	Frequency	Percentage
A	Level of Innovativeness		
1.	Low (0-3 score)	140	44.30
2.	Medium (4 – 6 score)	107	33.86
3.	High (above 7 score)	69	21.84
B	Level of Scientific Orientation		
1	Low (0-6 score)	82	25.94

2	Medium (7 – 12 score)	186	58.86
3	High (above 12 score)	48	15.18
C	Level of cosmopolitanism		
1.	Low (0-6 score)	82	25.94
2.	Medium (7 – 12 score)	186	58.86
3.	High (above 12 score)	48	15.18
	Total	316	100.00

Comment [a38]: Cosmopolitanism?

Above table indicated that (44.30%) respondents were in low innovativeness category whereas (33.86%) respondents were in medium innovativeness category while (21.84%) were in high innovativeness category while level of scientific orientation (25.94%) had low level, (58.86%) had medium level whereas (15.18%) of the respondents had low level of scientific orientation whereas regarding cosmopolitanism (25.94%) respondents had low cosmopolitanism whereas (58.86%) respondents had medium cosmopolitanism while (15.18%) sugarcane growers had high level of cosmopolitanism. Similar findings also reported by

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Conclusion:-

The findings revealed that more than 50 percent of the respondents (51.58 percent) were in middle age category about nearly one-fourth of the respondents (23.42 percent) belonged to illiterates. Most of the respondents (45.85 percent) were found to have agriculture and (37.93 percent) respondents were found to have agriculture + animal husbandry as their primary occupation. And (46.20 percent) the respondents were found to low income and (34.17 percent) respondents have medium level of income, while half of the respondents (50.63 percent) were small farmers. As far as social participation of the respondents is concerned most of the (37.04 percent) respondents regularly participate in Cooperative Society and (52.21 percent) respondents occasionally participate in social organization. And more than 60% of the respondents (67.08percent) had medium level of contact with extension agency contact and (44.30 percent) of the respondents had low level of innovativeness and more than half of the respondents (58.86 percent) respondents had medium level of cosmopolitanism.

Comment [a41]: This is a repeat of what is in the results section. Make a concise conclusion based on the objective of your study.

References:

Ituma, O.E. and Ukah, N.J. 2017. Training skill needs of secondary school agricultural science graduate in fish farming in Ebonyi state, Nigeria. *Int. J. Bus. Manage. Soc. Res.* 3: 186-191.

Jagatpall, Doharey R.K 2017. Communication and Psychological Behavior of the Sugarcane Growers in Sitapur District (U.P.), India, *International Journal of Current Microbiology and Applied Sciences* 6(3): 2013-2020

Comment [a42]: Not cited in the text.

Kumar, V., Singh, G. P. and Singh, A.K., 2012. Marketing of sugarcane in Bijnor District of U.P. *The Journal of Rural and Agricultural Research*, 12(1): 6-8.

Comment [a43]: Not cited in the text

Nagesh B., S.V. Halakatti and Hanchinal S.N.2011. Study on entrepreneurial behaviour of pomegranate growers. *Agriculture update*.6 (3&4): 122-125

Mehta B. M. and Sonawane Madhuri 2012. Entrepreneurial Behaviour of Mango Growers of Valsad District of Gujarat State. *Indian Res. J. Ext. Edu.* 12 (1)

Pal Arun Kumar, Katiyar Rahul, Singh H.C. and Rajmani, 2017, Socio-Economic Profile of Sugarcane Growers in District Moradabad, Uttar Pradesh, India, *International Journal of Current Microbiology and Applied Sciences* 6(9):1217-1229

Raj, H. P. L. ; Aski, S. G 2019, Personal and socio-economic characteristics of sugarcane growers of Belagavi and Bagalkote district of Karnataka. *Agriculture Update*, 14(4):294 299.

Roy, M. L., Chandra, N., Kharbika, H.L., Josh, P. and. Jethi, R., 2013. Socio-economic status of hill farmers: an exploration from Almora District in Uttarakhand, *International Journal of Agriculture and Food Science Technology*, 4(4):353-358

Waghmode, R. R.; Deshmukh, K. V. and Kolambkar, R. A. 2014 Economics of production of sugarcane in Beed district of Maharashtra state. *International Journal of Commerce and Business Management*, 7 (1): 142-145.

Zaidi Naheen Haider and Munir 2014, Abdul Socio-economic status of sugarcane growers: a case study of bijnor districts in western uttar Pradesh. *International Journal of Development Research*, 4(8) 1550-1554

Comment [a44]: In the entire Reference list follow the Journals format