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Personal and socio-economic characteristics of sugarcane growers in Sindhudurg district

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Abstract
The present study explored profile characteristics of farmers about training needs of sugarcane growers in Sindhudurg district. For the study Sindhudurg district were purposively selected from Konkan region of Maharashtra state. Two talukas *viz*., Vaibhavwadi and Kankavli from Sindhudurg district were selected purposively based on maximum area under sugarcane cultivation and five villages from each taluka were selected. From each village twelve respondents were selected randomly. The constituting total sample size is 120. The Ex-post-facto research design was used for the study. A well-structured questionnaire designed for study was used for collecting the data from respondents through personal interview method. The data collections from the respondents were edited tabulated and analyzed using suitable statistical tools like frequency, percentage, mean, standard deviation, chi-square and Kendall's coefficient of concordance. The study was noticed that, the profile characteristics of farmers concluded from the present study that majorities of respondents were having middle age group (58.00%), education up to secondary school (43.34%). Also clearly observed that majority of farmers had medium family size (66.00%) and belong to marginal land holding (62.50%), medium area under sugarcane (59.16%), medium yield from sugarcane (60.00%), medium income from sugarcane (80.00%), medium farming experience (48.33%), medium irrigation status (70.83%), medium level use of mass media (59.16%), medium level of material possession (75.83%).

Keywords: Sugarcane, ex-post facto, Konkan region, existing knowledge

Introduction
Sugarcane is an important commercial crop of the world and is cultivated in about seventy-five countries; the leading countries are India, Brazil, Cuba, Mexico and Thailand. India is the world's largest consumer and the second-largest producer of sugarcane, after Brazil. As a commercial crop and its ease of cultivation, the crop is highly desired by farmers. The sugar industry is responsible for the supply of sugar, which is considered as an integral part of the human diet and found, depending on the region, in many staple foods. It is processed in almost every food category. Currently, the global production of sugar is about 180 million metric tons annually.

Sugarcane belongs to the family Graminaceae and genus *Saccharum officinarum*. The genus Saccharum comprises mainly of five species, three of which are cultivated and two are wild species. Sugarcane crop has its origin in New Guinea, later it spread to many countries of the world. India is considered as homeland of sugarcane and some 50 million farmers and millions of more workers, are involved in sugarcane farming. The sugarcane and sugar sector in India ranks second among the country's agro-based industries, after cotton. India ranks first globally in sugar production. It produced about 37 million metric tons of sugar in 2022. It is not only responsible for the livelihood of sugarcane farmers in rural areas but also provides employment to about 5 lakhs workers in the sugar mills. There are 716 installed sugar factories (Co-operative-326, Private-347 and Public-43) in the country as on 31.01.2016, with sufficient crushing capacity to produce around 330 lakh MT of sugar. (Source: http://*www.statista.com*).

The increased production of sugarcane by way of adoption of new technologies necessitated modernization of sugar industry, thereby, boosting the general economy of the country. The modernized sugar industries can crush any quantity of cane and to produce sugar products. This resulted into increasing demand for sugarcane. Thus, a major breakthrough in sugarcane production in India need to be accomplished with the knowledge of the present package of practices that are recommended by the concerned sugarcane research institutes and the varieties plus other inputs used by the sugarcane growers in the cultivation of sugarcane.

Materials and Methods

The present study was carried out in Konkan region of Maharashtra State during the year 2022-23. The present investigation was carried out in Konkan region for the study one district is selected purposively, i.e. Sindhudurg. In Sindhudurg district two talukas were selected purposively i.e. Vaibhavwadi and Kankavli based on maximum area under sugarcane cultivation. In selected talukas five villages were selected, thus total ten villages were selected for the present investigation. From each selected village, twelve (12) farmers were selected randomly. That farmer who are engaged in sugarcane cultivation was selected as a respondent. Thus, 120 (Total 10 × 12 = 120) total respondents for the present study. An interview schedule was prepared, so as to collect the information in line with the objectives of the study. Personal interview technique was used for data collection. The ex-post-facto research design was used for the present study. The data collected from the selected respondent during the course of investigation was entered and tabulated in the excel worksheet and then appropriate analysis of data was made according to objectives formulated for study. Further, the statically techniques were applied to analyze tabulated data and interpreted it to reach up to the findings. Statistical methods to be used *viz*. mean, standard deviation, Chi-square test, Kendell's coefficient of concordance, frequency and percentage.

Results and Discussion

Personal and socio-economic characteristics

Age: Age was considered as a chronological age of respondents in completed years. The table 1 revealed that majority 58.00 percent of the respondents belonged to middle age group, followed by 25.00 percent were young category and rest 17.00 percent of the respondents belonged to old age category. This shows that most of the respondents were middle aged group. The reason might be that middle aged farmers are in sugarcane cultivation and were mostly involved in farming and maintaining the family. Young generation might be showing less interest and old age farmers might be handling their work to their younger ones and providing counselling and guidance to family members. The results were supported by the findings of Deb and Islam (2023) [6].

Education

The education is the process of the brining about desirable changes in the behaviour. It refers to the qualification of the respondent which has been acquired through formal schooling. The table 1 revealed that majority 43.34 percent of the respondents were educated up to secondary school level, followed by 30.83 percent of the respondents were educated up to primary school level, 10.00 percent of the respondents were educated up to higher secondary education, 05.83 percent of the respondents were educated up to college level, 03.33 percent respondents were illiterates. Generally, the rural areas have the educational facility available up to primary and secondary school level. This might be fact that rural people understand the importance of education for their personal development. Due to the economical reason the education of the rural people is restricted. This clearly indicated that, the large proportion of the respondent had their education up to secondary school level. The results were supported by the finding of Karangami (2019) [8] and Bangar (2022) [3].

Family Size

The family size refers to the total number of members residing together in a family of sugarcane growers under a common roof having blood relations and sharing common food. The table 1 revealed that majority 66.00 percent of the sugarcane growers belonged to medium level family size, followed by 25.00 percent of the farmers has small level of family size and 09.00 percent of the respondents had large level family size. The probable reason might be that the people in rural area live together and have joint families. Therefore, they have medium level of family size. The results were supported by the finding of Deb and Islam (2023) [6].

Land holding

The number of standard acres/hectares of land owned/leased by the respondent was considered in determination of their size of land holding. The table 1 revealed that majority 62.50 percent of the respondents belonged to category of small land holding, followed by 21.6 percent of the respondents belonged to marginal category, 15.83 percent were belonged to semi-medium category. The probable reason might be that the ancestral transfer of land holding from generation to generation and other reasons that increasing population on land. Thus, majority of the farmers were small which might have helped them in carrying out different agricultural operations of sugarcane cultivation to increase their income. The results were supported by the finding of Ekhande (2016) [7] and Das and Jha (2017) [5].

Area under sugarcane

It refers to the actual area of land in hectares put under sugarcane cultivation. The table 1 revealed that majority 59.16 percent of the farmers had medium area under sugarcane, followed by 26.67 percent of the respondents had large area under sugarcane and remaining 14.17 percent of the respondents has small area under sugarcane. The reason might be that most of the sugarcane growers had average of about less than 0.45 ha area under sugarcane cultivation. Owing to the typical geographical situation of Konkan region, where average size of land holding is very comparatively low, the sugarcane growers seem to have put a substantial area under sugarcane. The results were supported by the finding of Pujari (2016) [9].

Yield of sugarcane

Yield of sugarcane can be defined as the total quantity of the sugarcane produced in tons by the sugarcane growers from area under sugarcane cultivation. The table 1 revealed that majority 60.00 percent of the sugarcane growers had medium yield, followed by 26.67 percent of the sugarcane growers had high yield and 13.33 percent of growers had low yield from sugarcanes, respectively. The probable reason might be that majority of the respondents had medium level of yield based of the various factor causing effect including climate change and selected variety for cultivation. The results were supported by the finding of Ambast and Jaiswal (2022) [1].

Income from sugarcane

Income refers to the actual amount of money earned by the farmers in rupees through sugarcane produce during preceding year. The table 1 revealed that majority of 80.00 percent respondents belonged to medium level of annual income, followed by 13.33 percent were low level of annual

income and rest 06.67 percent of the respondents had high level of annual income. This reason might be due to most of farmers having farming occupation and is main source of income. Majority of the farmers were possessed marginal land holding and had satisfactory level of economic returns, considering their size of land holding and area under sugarcane whereas the productivity is not high due to one or the other reasons and marketing facilities are also inadequate. The results were supported by the finding of Deb and Islam (2023) [6].

Experience in sugarcane cultivation

Experience in Sugarcane cultivation indicates the level of familiarity of farmers in farming. It refers to the numbers of years; the respondent is engaged in sugarcane cultivation. The experience is important factor that influence the decision making ability, management ability and help the farmer in taking risk. The table 1 revealed that majority 48.33 percent of the respondents had medium years of farming experience, followed by 26.67 percent of the respondents had low years of farming experience and rest 25.00 percent of the respondents had high years of farming experience. The probable reason might be that they are having medium farming experience is due to unemployment problem and condition, and the fact that majority of the respondents had been doing sugarcane cultivation from past, whereas new areas and farmers are getting into sugarcane cultivation as a source of income. The results were supported by the finding of Rahman *et al.* (2018) [10] and Ambast and Jaiswal (2022) [1].

Irrigation status

Irrigation status refers to the situation of the respondents with regard to availability of water lifting device irrigation method followed and percentage of irrigation potential used. The table 1 revealed that majority 70.83 percent of the farmers had fair level of irrigation status, followed by 15.84 percent of the farmers had good level of irrigation status and remaining of the farmers 13.33 percent had poor level of irrigation status. The possible reason may be because most of the respondents had medium irrigation status as major source for them were river and canals for irrigation purpose and majority of them possessed water pump for uplifting water and irrigation purpose. The results were supported by the finding of Baldaniya (2019) [2] and Shigwan (2019) [12].

Use of mass media: It refers to the frequency of use of different mass media platforms in day-to-day life in order to get information about agriculture and allied activities like, Newspaper, Farm magazine, radio, Television, Internet, mobile app on agriculture, owned or used by the respondents for agricultural purpose. The table 1 revealed that majority 59.16 percent of the respondents belonged to medium use of mass media, followed by 24.17 percent of the respondents belonged to high use of mass media and rest 16.67 percent of the respondents belonged to low use of mass media. The probable reason might be that Youth want to use updated technology and stay connected with the changing world and most of the sugarcane growers are updating their knowledge by use of mass media such as newspaper, television, internet etc. The results were supported by the finding of Bangar (2022) [3] and Deb and Islam (2023) [6].

Material possession

It refers to the farm implements, farm equipment's possessed by the farmers for cultivation inter cultural operation and post-harvest practices. The table 1 revealed that majority 75.83 percent of the respondents belonged to medium level of material possession, followed by 12.53 percent of the respondents belonged to low level of mass media and rest 11.67 percent of the respondents belonged to high level use of mass media. The reason may be because majority of the farmers had spent a long quite span in farming, and through experience, they might have formulated their own concepts and ideas about farm tools, implements and equipment's that might have reflected in their level of use and possession of material. Majority of the farmers were not found using improved farm machinery, possibly may be because of its prohibitive cost and non-availability on hire basis. Further, the undulating topography and fragmented land holdings might have restricted mechanization in the study area. The results were supported by the finding of Bite (2012) [4] and Shankar *et al.* (2018) [11].

Table 1: Personal and socio-economic characteristics of Farmers

Sr. No.	Personal and socio-economic characteristics of Farmers	Respondents (n=120)	
		Number	Percentage
1	**Age**		
	Young (Up to 51)	30	25.00
	Middle (51 to 62)	70	58.00
	Old (63 and above)	20	17.00
2	**Education**		
	Illiterate	04	03.33
	Pre-Primary (Up to 4)	08	06.67
	Primary (5 to 7)	37	30.83
	Secondary (8 to 10)	52	43.34
	Higher secondary (11 to 12)	12	10.00
	College (13 an above)	07	05.83
3	**Family size**		
	Small (Up to 3)	30	25.00
	Medium (4 to 6)	79	66.00
	Large (7 and above)	11	09.00
4	**Land holding**		
	Marginal (Below 1.00 ha)	26	21.67
	Small (1.01 to 2.00 ha)	75	62.50
	Semi Medium (2.01 to 4.00 ha)	19	15.83
5	**Area under sugarcane**		

	Small (Up to 0.34 ha)	17	14.17
	Medium (0.35 ha to 0.47 ha)	71	59.16
	Large (0.48 ha and above)	32	26.67
6	**Yield of sugarcane**		
	Low (Up to 25 ton)	16	13.33
	Medium (26 ton to 36 ton)	72	60.00
	High (37 ton and above)	32	26.67
7	**Income from sugarcane**		
	Low (Up to Rs. 76212/-)	16	13.33
	Medium (Rs. 76163/- to Rs. 110087/-)	96	80.00
	High (Rs. 110138/- and above)	8	06.67
8	**Farming experience**		
	Low (Up to 5)	32	26.67
	Medium (6 to 8)	58	48.33
	High (9 and above)	30	25.00
9	**Irrigation status**		
	Poor (Up to 11)	16	13.33
	Fair (12 to 16)	85	70.83
	Good (17 and above)	19	15.84
10	**Use of mass media**		
	Low (Up to 10)	20	16.67
	Medium (11 to 12)	71	59.16
	High (13 and above)	29	24.17
11	**Material possession**		
	Low (Up to 10)	15	12.50
	Medium (11 to 29)	91	75.83
	High (30 and above)	14	11.67

Conclusion

The study provides us profile characteristics of farmers. They were from majority of farmer middle age category, majority of farmer were educated up to secondary school level, majority farmers had medium family size and possessed small land holding, majority of farmer were having medium area under sugarcane, majority of the farmers had medium level of yield from sugarcane and medium income from sugarcane cultivation, majority of the farmers were having medium level of experience in sugarcane, majority of the framers were having fair level use of irrigation status, majority of farmer were medium level of mass media, majority of farmer had medium level of material possession.

References

1. Ambast V, Jaiswal PK. A study on technological adoption among sugarcane growers of Surguja district of Chhattisgarh. Asian Journal of Agricultural Extension, Economics & Sociology. 2022;40(10):1137-1142.
2. Baldaniya SJ. Technological gap in okra crop in Gandhinagar district. M.Sc. (Agri.) Thesis, (Unpublished), Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar; c2019.
3. Bangar R. Training needs of farm women in dairy farming, M.Sc. (Agri.) Thesis, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani (M.S); c2022.
4. Bite RK. Resource-sustaining agricultural practices followed in Coconut based homestead farming. Ph.D. (Agri.) Thesis, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli (M.S); c2012.
5. Das R, Jha KK. Training needs of potato growers in Sepahijala district of Tripura. Agriculture Update. 2017;12(3):323-327.
6. Deb B, Islam MA. Determinants of Training Need of the Pineapple Growers for Boosting Production in Hilly Areas of Sreemangal Upazila under Moulvibazar District. Asian Research Journal of Arts & Social Sciences. 2023;20(2):14-25.
7. Ekhande YS. Entrepreneurial behavior of sweet orange growers in Marathwada region. M.Sc. (Agri.) Thesis (Unpublished), Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani (MS); c2016.
8. Karangami RS. Adoption of recommended rice cultivation practices by the farmers from Palghar district. M.Sc. (Agri) Thesis, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli (M.S); c2017.
9. Pujari PP. Training needs of pomegranate growers about plant protection in Latur district. M.Sc. (Agri.) Thesis (Unpublished), Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani (M.S); c2016.
10. Rahman MS, Khatun M, Rahman ML. Assessment of training needs on crop production for farmers in some selected areas of Bangladesh. Bangladesh Journal Agriculture Research. 2018;43(4):669-690.
11. Shankar RC, Reddy KP, Raghuprasad, Tanweer Ahmed. Knowledge level of paddy growers about farm mechanization in paddy cultivation. International Journal of Current Microbiology and Applied Sciences. 2018;7(10).
12. Shigwan AS. Knowledge and attitude of the Konkan farmers towards organic farming practices. Ph.D. (Agri.) thesis, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli (M.S); c2019.