Research Article

Socio-personal analysis and constraints encountered by the sugarcane growers of Burhanpur district(M.P.)

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SUMMARY : The study was conducted in Burhanpur District of (M.P) in 2010. The majority of the farmers reported lack of credit in time, followed by non-availability of seeds in time, lack of irrigation facility, unavailability of improved varieties of seeds, lack of training programmes about improved cultivation, insufficient knowledge about plant protection, lack of information in right time, lack of fertilizer in time, non-availability of inputs in time and lack of field visit by extension workers and agriculture officers. The attention should be paid on the constraints faced by sugarcane growers in adoption of recommended sugarcane production technology. These constraints need to be highlighted and dealt with by the concerned authorities and departments so that the constraints can be removed.

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BACKGROUND AND OBJECTIVES

Though sugarcane is a main commercial crop of M.P. thus needs more emphasis on its technological cultivation. The rural population of our country is far from satisfactory knowledge about recommended sugarcane production technology and its adoption which result in low production and low income also. Therefore, sugarcane production in the country needs to be changed from traditional farming to commercialize farming in area and is only possible when sugarcane growers leave their traditional practices and adopt improved sugarcane technology. Modern sugarcane technology has tremendous potential for high production but the average yield of sugarcane in Burhanpur District is very low among the sugarcane growers. There are various factors, which are responsible for low yield. Thus, there was a need to identify the present knowledge and adoption level of sugarcane growers and factors which are responsible far low yield. An attempt was also made to find out the relationship between socio-personal, economic, communicational and psychology attributes with technological knowledge and adoption of sugarcane growers and to identify the reasons for low adoption of the modern technology, the study was undertaken with the following objectives.

– To know the socio-personal and communicational characteristics of sugarcane growers.

– To determine the extent of adoption of recommended sugarcane production technology by the sugarcane growers.

– To identify the problem faced by the sugarcane growers in adoption of recommended sugarcane production technology.

RESOURCES AND METHODS

The study was conducted in Burhanpur District. It is divided in two development blocks namely Burhanpur and Khaknar. It is consisting of three Tehsils namely Napanagar, Burhanpur and Khaknar. From agriculture point of view district is very good. Sandy loam black loam soil is generally found in district, this soil is quite suitable for growing sugarcane. A list of sugarcane growing villages of khaknar block was prepared and four

village were selected randomly. After the selection of the village, a village wise list of the sugarcane growing farmers of the selected 4 village was prepared and 30 sugarcane growers from each village were randomly selected. Thus, the total sample consisted of 120 sugarcane growers spread over 10 selected villages. Data collected were qualitative as well as quantitative. The quantitative data were interpreted in terms of percentage and qualitative data were tabulated on the basis of categorization methods. After tabulation, percentage, mean, standard deviation, correlation co-efficient and multiple regression analysis were carried out.

OBSERVATIONS AND ANALYSIS

The data presented in Table 1 reveal that majority of the respondents 59.17 per cent were of middle age group followed by young age group 20.83 per cent and old age group 20.00 per cent, respectively. That maximum numbers 27.50 per cent of respondents were found to possess higher secondary and above level of education. The table also shows that 24.17 per cent respondents were middle school, 20.00 per cent respondents were high school, 17.50 per cent respondents had primary school education and 10.83 per cent respondents were illiterate. That the majority 38.33 per cent of the respondents and medium family size, 35.00 per cent respondents were in the small category and 26.67 per cent were in the large category. The data shows that out of the total 120 respondents of sugarcane growers, 52.50 per cent had medium social participation, followed by 30.00 per cent respondents who had low social participation and only 17.50

per cent were found to have high social participation. Similar finding was also reported by Wasnik (1993).

The data in the Table 2 show that out of the total 120 respondents, 24.17 per cent respondents were found to be in low source of information category while 45.83 per cent were in medium source of information category and only 30.00 per cent were in high source of information category. Only 27.50 per cent was found to be in the low contact with extension personal category. The highest 36.67 per cent respondents were in the high contact with extension personal category followed by 35.83 per cent in medium contact with extension personal category, respectively and 35.83 per cent respondents were found to be in low mass media exposure category while 40.00 per cent were in medium mass media exposure category and only 24.17 per cent were in high mass media exposure category. These findings sre in line with the findings reported by Mathur *et al.* (2005).

In case of improved variety the majority 45.83 per cent of respondents were found low level of adoption followed by 37.50 and 16.67 per cent of the respondents were medium and high level of adoption, respectively. While, in case of preparation of land, a higher percentage of them 40.83 per cent possessed high level of adoption, 33.33 per cent medium level of adoption and 25.83 per cent of the respondents possessed low level of adoption. With regards to the sowing time and method, most of them 42.50 per cent of the respondents, possessed medium level of adoption, followed by 38.33 per cent low level of adoption and 19.17 per cent of the respondents high level of adoption regarding recommended production technology of sugarcane. In case

Table 1 : Distribution of respondents according to their socio-personal characteristics

Sr. No.	Characteristics	Category	No. of respondents	Percentage	Mean score
1.	Age	Young	25	20.83	0.41
		Middle	71	59.17	1.18
		Old	24	20.00	0.40
		Total	120	100.00	1.99
2.	Education	Illiterate	13	10.83	0.26
		Primary school	21	17.50	0.41
		Middle school	29	24.17	0.57
		High school	24	20.00	0.47
		Higher secondary and above	33	27.50	0.65
		Total	120	100.00	2.36
3.	Size of family	Small	42	35.00	0.67
		Medium	46	38.33	0.74
		Large	32	26.67	0.51
		Total	120	100.00	1.92
4.	Social participation	Low	36	30.00	0.56
		Medium	63	52.50	0.98
		High	21	17.50	0.33
		Total	120	100.00	1.87

Table 2 : Distribution of respondents according to their communicational characteristics

Sr. No.	Characteristics	Category	No. of respondents	Percentage	Mean score
1.	Source of information	Marginal	29	24.17	1.36
		Small	55	45.83	2.59
		Medium	36	30.00	1.69
		Total	120	100.00	5.64
2.	Contact with extension personnel	Low	33	27.50	0.57
		Medium	43	35.83	0.75
		High	44	36.67	0.77
		Total	120	100.00	2.09
3.	Mass media exposure	Low	43	35.83	0.67
		Medium	48	40.00	0.75
		High	29	24.17	0.45
		Total	120	100.00	1.88

Table 3 : Distribution of respondents according to their extent of adoption regarding recommended production technology of sugarcane.

Sr. No.	Name of technology	Low No.	Low %	Medium No.	Medium %	High No.	High %
1.	Improved variety	55	45.83	45	37.50	20	16.67
2.	Preparation of land	31	25.83	40	33.33	49	40.83
3.	Sowing time and method	46	38.33	51	42.50	23	19.17
4.	Spacing	60	50.00	45	37.50	15	12.50
5.	Manure and fertilizer	42	35.00	47	39.17	31	25.83
6.	Irrigation and drainage	46	38.33	41	34.17	33	27.50
7.	Inter-culture operation	33	27.50	42	35.00	45	37.50
8.	Weed control	48	40.00	36	30.00	36	30.00
9.	Plant protection measures	45	37.50	42	35.00	33	27.50

of spacing the majority, 50.00 per cent had low level adoption, 37.50 per cent had medium level adoption and 12.50 per cent respondents had high level adoption. In case of manure and fertilizer of the respondents, most of them 39.17 per cent had medium level adoption, followed by 35.00 per cent had low level adoption and 25.83 per cent had low level of adoption regarding to sugarcane production technology. With regards to the irrigation and drainage of the respondents, a higher percentage of them 38.33 per cent had low level adoption, 34.17 per cent had medium level adoption and 27.50 per cent respondents had high level adoption. In case of inter-culture operation, majority of the respondents 37.50 per cent had high level adoption, followed by 35.00 per cent had medium level adoption and 27.50 per cent had low level adoption regarding recommended production technology of sugar. With regards to the weed control, most of them 40.00 per cent of the

Table 4 : Problems faced by the sugarcane growers in adoption of recommended sugarcane production technology

Sr. No.	Constraints	Frequency	Percentage	Rank
1.	Unavailability of improved varieties of seed	67	55.83	IV
2.	Seeds not available in time.	73	60.83	II
3.	Lack of credit in time.	76	63.33	I
4.	Lack of information in right time.	56	46.67	VII
5.	Lack of fertilizers in time.	51	42.50	VIII
6.	Incufficient knowledge about plant protection.	61	50.83	VI
7.	Lack of training programmes about improved cultivation.	63	52.50	V
8.	Lack of irrigation facilities.	72	60.00	III
9.	Lack of field visit by extension workers and agricultural officers.	49	40.83	IX

respondents, possessed low level of adoption, followed by 30.00 per cent high and medium level of the respondents of adoption regarding recommended production technology of sugarcane. While, in case of plant protection measures, a higher percentage of them 37.50 per cent possessed low level of adoption, 35.00 per cent medium level of adoption and 27.50 per cent of the respondents possessed high level of adoption.

The highest majority 63.33 per cent of the farmer reported lack of credit in time. Short-term credit is very essential especially to farmers to adopt the improved technology and apply the proper dose of inputs etc. non-availability of seeds in time was expressed by 60.83 per cent respondents and ranked as second constraints. Lack of irrigation facility and un-availability of improved varieties of seeds were next important constraints exposed by sugarcane growers 60.00 and 55.83 per cent of the total respondents reported these problems, respectively. 52.50 and 50.83 per cent of total farmers reported lack of training programmes about improved cultivation and insufficient knowledge about plant protection, respectively. In study area 46.67 per cent farmers felt lack of information in right time and 42.50 per cent respondents expressed lack of fertilizer in time as constraints in adoption of improved sugarcane production technology. Lack of field visit by extension workers and agriculture officers faced by 40.83 per cent respondents. These findings are in line with the findings reported by Maraddi *et al.* (2007).

Conclusion:

The study revealed that majority of the farmers were of middle age 59.17 per cent, educated up to higher secondary and above level 27.50 per cent, belong to medium size of family 38.33 per cent and had medium social participation 52.50 per cent. It was found that respondents considering the socio-communicational characteristics had medium source of information 45.83 per cent, high contact with extension personal 36.67 per cent and medium mass media exposure 40.00 per cent. Improved variety the majority 45.83 per cent of respondents were found low level of adoption followed by 37.50 and 16.67 per cent of the respondents were medium and high level of adoption. While, in case of preparation of land, a higher percentage of them 40.83 per cent possessed high level of adoption, 33.33 per cent medium level of adoption and 25.83 per cent of the respondents possessed low level of adoption. The highest majority 63.33 per cent of the farmers reported lack of credit in time. Short-term credit is very essential especially to farmers to adopt the improved technology and apply the proper dose of inputs etc.

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