STUDY OF SOME PSYCHOLOGICAL CHARACTERISTICS OF BT COTTON GROWER'S

Sanjay Kumar*

Ex PG student BACA Anand
Email: Sanjaysinochem1@gmail.com

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Abstract: Cotton is major commercial crop of India as well as for Gujarat .bt cotton cultivator posses different psychological characters which affect in knowledge and adoption of new technology so looking to this the present study was conducted in Vadodara district of Gujarat to know the different psychological characters of the bt cotton growers .It is found from the study that Majority of the Bt. Cotton growers (68.12 per cent) had medium level of scientific orientation. Slightly less than three fourth of the Bt. Cotton growers (72.50 per cent) had medium level of innovativeness. Three fourth of the Bt. Cotton growers (75. 63 per cent) had medium risk orientation and a great majority of the Bt. Cotton growers had medium level of overall modernity (85.00 per cent) and economic motivation (82.50 per cent).

Keywords: Crop, Psychological characters, Cotton

INTRODUCTION

Cotton plays a key role in the National economy in terms of generation of direct and indirect employment in the Agricultural and Industrial sectors .Bt cotton, which confers resistance to Lepidopteron pests of cotton, was first adopted in India as hybrid in 2002 after stringent assessment for bio-safety and profitability. In India, after extensive testing of Bt cotton hybrids (with Cry1 Ac gene) in All India Coordinated Cotton Improvement Project (AICCIP) and farmers field, Government of India has approved commercial cultivation of Bt cotton hybrid with effect from 2002 crop season. Agricultural expert said the merits of Bt cotton adoption remain debatable as some have approved it for giving better yield, while some question the claim. "However, I support the adoption of higher yielding crop varieties as most of our cotton farmers are small farmers who need better yields to earn profits. In India Cotton is cultivated in three distinct agro-ecological regions (north, central and south) of the country. The northern zone is almost totally irrigated, while the percentage of irrigated area is much lower in the central and southern zones. The lowest being in the central zone which has nearly 60% of cotton area of our country. Under the rainfed growing conditions rainfall ranges from 900 mm coupled with aberrant precipitation patterns over the years leading to large scale fluctuations in production. In the irrigated tract canal and well irrigation are resorted including the use of micro-irrigation system.USA Australia and Mexico adopted bt cotton in 1996 while China in 1997 and India and Indonesia since 2002. James C (2003).

METHODOLOGY

Cotton is a principal commercial crop of vadodara district and majority of the farmers in the area have undertaken the cultivation of cotton since a very long time. Low productivity of cotton and pest problem is cited as the reasons for the introduction of Bt. Cotton. The present study was designed to know the knowledge level of Bt. Cotton growers in relation to Bt. Cotton and how it is affected by their psychological characteristics. Among 12 talukas of vadodara district, four talukas viz. Karjan, Sankheda, Dabhoi, and Shinor were selected purposively because of more number of farmers cultivating Bt.Cotton in these talukas. The tool used for study was personal interview schedule. Keeping in view the objectives of the study, the interview schedule was developed. 160 respondents from 20 villages were selected and data recorded. Conclusion drowns after the analysis of the data.

RESULT AND DISCUSSION

1. Scientific orientation

It is the degree to which a farmer is orientated to the use of scientific methods in relation to his adoption behavior.

Table 1. Distribution of the bt. cotton growers according to their scientific orientation. N=160

Sr. No.	Category	Frequency	Per cent
1.	Low scientific orientation (Below 18.00 score)	24	15.00
2.	Medium scientific orientation (18.00 to 24.00 score)	109	68.12

*Corresponding Author

3.	High scientific orientation (Above 24.00 score)	27	16.88
	Total	160	100.00

The data presented in above Table 1 indicate that majority of the Bt. Cotton growers (68.12 per cent) had medium level of scientific orientation followed by 16.88 per cent and 15.00 per cent who had high and low level of scientific orientation respectively. It can be concluded that majority of the Bt.Cotton growers had medium level of scientific orientation. The probable reason might be their high level of education.

2. Innovativeness

Innovativeness as the degree of an individual interest and desire to seek changes in farming technique and to introduce each change in to his own operation as and when found practicable and feasible keeping this fact in view innovativeness was studied and data in this regard are presented in table 2.

Table 2. distribution of the bt. cotton growers according to their innovativeness. N=160

Sr. No.	Category	Frequency	Per cent
1.	Low innovativeness (Below 9 score)	18	11.25
2.	Medium innovativeness (9.00 to 15.00 score)	116	72.50
3.	High innovativeness (Above 15.00 score)	26	16.25
	Total	160	100.00

Data presented in Table 2 reveal that majority of the Bt.Cotton growers had medium level of innovativeness (72.50 per cent) followed by 16.25 per cent and 11.25 per cent who had high and low level of innovativeness, respectively. It can be concluded that majority of the Bt. cotton growers had medium level of innovativeness. The reason might be their high level of education.

3. Risk orientation

The distribution of the Bt. Cotton growers according to their risk orientation is presented in Table 3

Table 3. Distribution of the bt. cotton growers according to their risk orientation N=160

Sr. No.	Category	Frequency	Per cent
1.	Low risk orientation (Below 15.00 score)	14	08.75
2.	Medium risk orientation (15.00 to 19.00 score)	121	75.63
3.	High risk orientation (Above 19.00 score)	25	15.62
	Total	160	100.00

A perusal of the Table 3 revealed that majority of the Bt. cotton growers (75.63 per cent) had medium risk orientation followed by 15.62 per cent and 08.75 per cent who had high and low level of risk orientation, respectively. It can be concluded that majority of Bt. cotton growers had medium level of risk orientation. This finding is in accordance with those of Palaniswamy (1984) and Kosambi (1997)

4. Overall modernity

Modernization is the process by which individuals change from traditional way of life to more complex, technology advanced and rapid changing style of life (Rogers and Sevening, 1969). The above discussion provides a base to believe that modernity of farmer may play an important role in adoption of production technologies. The respondents were grouped into three categories as expressed in Table 4.

Table 4. Distribution of the bt. cotton growers according to their overall modernity. N=160

Sr. No.	Category	Frequency	Per cent
1.	Low overall modernity (Below 22 score)	15	09.37
2.	Medium overall modernity	136	85.00

	(22.00 to 28.00 score)		
3.	High overall modernity (Above 28.00 score)	09	05.63
	Total	160	100.00

The data presented in Table 4 indicate that a great majority of the Bt. Cotton growers (85.00per cent) had medium overall modernity followed by 09.37 per cent and 05.63 per cent who had low and high level of overall modernity respectively.

5. Economic motivation

It is the occupational success in terms of profit maximization and relative value an individual places on economic ends. The distribution of the Bt.Cotton growers according to their economic motivation is presented in Table 5.

Table 5. distribution of the bt. cotton growers according to their economic motivation. N=160

Sr. No.	Category	Frequency	Per cent
1.	Low economic motivation (Below 21 score)	20	12.50
2.	Medium economic motivation(21 to 26 score)	132	82.50
3.	High economic motivation (Above 26 score)	08	05.00
	Total	160	100.00

Data from Table 5 indicate that 82.50 per cent of the Bt. Cotton growers had medium level of economic motivation followed by 12.50 per cent and 05.00 per cent of them who had low and high economic motivation respectively.

It can be concluded that majority of the Bt.Cotton growers had medium level of economic motivation. The probable reason might be that Bt.Cotton growers considered Bt.Cotton crop more remunerative as compared to other crops. This finding is similar to finding reported by Valand (1997).

CONCLUSION

The findings of the study suggest that the majority of the Bt. Cotton growers had medium level of scientific orientation. Slightly less than three fourth of the Bt. Cotton growers had medium level of innovativeness. Three fourth of the Bt. Cotton growers had medium risk orientation and a great majority of the Bt. Cotton growers had medium level of overall modernity and economic motivation.

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