

ASSOCIATION BETWEEN SELECTED CHARACTERISTICS OF COTTON GROWERS AND THEIR ATTITUDE TOWARDS INTEGRATED PEST MANAGEMENT

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ABSTRACT

The present investigation was carried out in three talukas of surendranagar district of Gujarat state, where maximum land under cotton cultivation. From each selected taluka four villages were selected randomly. Thus, total twelve villages were surveyed during the study. From each selected village, ten farmers were considered as respondents, thus total 120 farmers, who grow the cotton crop, were considered as respondents for the present study. The ex-post facto research design was used for the research study. It can be enunciated that among the selected twelve variables. Nine variables viz. Education, farm experience, training received, annual income, social participation, mass media exposure, scientific orientation, risk orientation and innovativeness had exerted positive and significant contribution to change in attitude of cotton growers towards Integrated Pest Management. Three variables viz. age, size of family and land holding failed to show any significant contribution to change in attitude of cotton growers towards Integrated Pest Management.

Keywords: Cotton, Farmers, Integrated Pest Management, attitude

INTRODUCTION

Cotton is one of the major *Kharif* crop grown under both irrigated and rain-fed conditions in India. On one hand, cotton crop gives high economic return to the farmers, while on the other hand, there are many risks involved in it (Sardhara *et al.*, 2020a&b). The cultivation of cotton also needs costly inputs in terms of seeds, fertilizers and pesticides. If proper care is not taken, it proves as monetary uncertain business. It is also sensitive crop to many diseases and pests. It is known as risky crop considering natural hazards, as well as the everyday fluctuating of wholesale price index (Biradar *et al.*, 2013). Thus, sometimes crises involved in cotton crop create serious climatic consequences on the income and life style of the farmers.

Surendranagar district is pioneer in introducing cotton cultivation. The district comprises of 10 talukas out of them chotila, chuda and wadhavan taluka has been considered as productivity potential region of cotton crop due to assured irrigation facilities and favourable soil and climatic conditions. That's why current study was conducted in surendranagar district of Gujarat state.

OBJECTIVE

To assess the association between selected characteristics cotton growers and their attitude towards Integrated Pest Management

METHODOLOGY

The study was conducted in Surendranagar district of Gujarat state. Three talukas selected for study and from each talukas four villages were selected randomly and from each villages ten farmers were considered as respondents, thus total 120 farmers, who grow the cotton crop, were considered as respondents for the present study to assess the relationship between attitude of cotton growers towards Integrated Pest Management. The data were collected by personal contact. Ex-post-facto research design was used. All the responses were recorded and transferred to master sheet. They were compiled, scored, tabulated and analyzed to give statistical treatment in such a way that they might give proper answer to the specific objective of the study. Frequency, percentage and Karl Pearson's coefficient of correlation were used for interpreting the data.

RESULTS AND DISCUSSION

Attitude of cotton growers towards Integrated Pest Management

Table 1: Relationship between attitude of the cotton growers towards Integrated Pest Management and independent variables (n=120)

Sr. No.	Independent variables	'r' value
X ₁	Age	-0.0051 ^{NS}
X ₂	Education	0.1885*
X ₃	Farm experience	0.2249*
X ₄	Training received	0.1761*
X ₅	Size of family	-0.1256 ^{NS}
X ₆	Annual income	0.1754*
X ₇	Land holding	0.1042 ^{NS}
X ₈	Social participation	0.1980*
X ₉	Mass media exposure	0.2852**
X ₁₀	Scientific orientation	0.5094**
X ₁₁	Risk orientation	0.2388**
X ₁₂	Innovativeness	0.2244*

* = Significant at 0.05 level of probability

** = Significant at 0.01 level of probability

NS = Non-significant

Age and attitude

It can be inferred from Table 1 that there was negative and non-significant relationship between attitude of the cotton growers towards Integrated Pest Management and their age. It means attitude of the cotton growers was not related with their age. Negative correlation was found in case of age and attitude might be due to the fact that the old aged farmers had traditional attitude and they do not want change. Similarly majority of farmers belongs to such type of families in which the head of the family has responsibility to deal with financial problems. This finding was in conformity with Chaudhari and Chauhan (2017) and Patel *et al.* (2017).

Education and attitude

It can be inferred that from Table 1 there was positive and significant relationship between attitude of the cotton growers towards Integrated Pest Management and their education. It means attitude of the cotton growers was related with their education. The probable reason might be that education could help the respondents to gain more knowledge and that must be important to develop favourable attitude towards Integrated Pest Management. This finding was supported by the findings of Rahman (2010).

Farming experience and attitude

It can be inferred that from Table 1 there was positive and significant relationship between attitude of the cotton growers towards Integrated Pest Management and their farm experience. The possible reason might be that, farming experience help farmers to understand the performance and role of Integrated Pest Management in improving the yield. As per results farmers developed positive attitude toward Integrated Pest Management.

Training received and attitude

It can be inferred from Table 1 that there was positive and significant relationship between attitude of the cotton growers towards Integrated Pest Management and their training received. The possible reason might be that, the training play important role to improve knowledge and skill of individuals which help farmers to develop positive attitude towards Integrated Pest Management. This result was supported by the findings of Rahman (2010).

Size of family and attitude

It can be inferred from Table 1 that there was negative and non-significant relationship between attitude of the cotton growers towards Integrated Pest Management and their size of family. Thus, it can be concluded that family size had no bearing with attitude towards Integrated Pest Management. Attitude and family size are independent of each other. The probable reason for this might be that awareness of small family norms had reduced the size of family with lesser decision making heads. This finding was in conformity with the finding of Shinde (2011).

Annual income and attitude

It can be inferred from Table 1 that there was positive and significant relationship between attitude of the cotton growers towards Integrated Pest Management and their annual income. Thus, it can be concluded that better economic condition motivates farmers to adopt more and its leads farmer to develop favourable attitude towards Integrated Pest Management. Similar finding were reported by Borole (2010)

Land holding and attitude

It can be inferred from Table 1 that there was positive and non-significant relationship between attitude of the cotton growers towards Integrated Pest Management and their land holding. It can be concluded that there was no relationship between land holding and attitude of cotton growers so there is no significant influence of land holding on the attitude of cotton growers towards Integrated Pest Management. This

finding was in line with findings of Chaudhari and Chauhan (2017).

Social participation and attitude

It can be inferred from Table 1 that there was positive and significant relationship between attitude of the cotton growers towards Integrated Pest Management and their social participation. The probable reason might be that cotton growers might have considered local organizations as an important one to provide services which help the farmers to develop favourable attitude. This finding was in conformity with the findings of Chaudhari and Chauhan (2017).

Mass media exposure and attitude

It can be inferred from Table 1 that there was positive and highly significant relationship between attitude of the cotton growers towards Integrated Pest Management and their mass media exposure. The probable reason for this result could be that more exposure to mass media, the respondents could get more knowledge and information about Integrated Pest Management which leads to develop favourable attitude among them. This finding was supported by the findings of Shinde (2011).

Scientific orientation and attitude

It can be inferred from Table 1 that there was positive and highly significant relationship between attitude of the cotton growers towards Integrated Pest Management and their scientific orientation. The probable reason might be that due to more scientific orientation they tried out different Integrated Pest Management of cotton for more yield which established positive attitude towards it. This finding was in line with findings of Chaudhari and Chauhan (2017).

Risk orientation and attitude

It can be inferred from Table 1 that there was positive and highly significant relationship between attitude of the cotton growers towards Integrated Pest Management and their risk orientation. The cotton growers with higher level of risk orientation would be much ahead of others in exploring the potentiality of technology availed which forced them to develop favourable attitude of cotton growers towards Integrated Pest Management. This finding was supported by the finding of Chaudhari and Chauhan (2017).

Innovativeness and attitude

It can be inferred from Table 1 that there was positive and significant relationship between attitude of the cotton growers towards Integrated Pest Management and their innovativeness. The probable reason might be that

due to more innovativeness they adopt different Integrated Pest Management for more benefit so it develops positive relationship between innovativeness and attitude of cotton growers. This finding was in line with the findings of Patel *et al.* (2017).

CONCLUSION

From above result it can be concluded that education, farm experience, training received, annual income, social participation, mass media exposure, scientific orientation, risk orientation and innovativeness had exerted positive and significant contribution to change in attitude of cotton growers towards Integrated Pest Management. Only age, size of family and land holding failed to contribute to change in attitude of cotton growers towards Integrated Pest Management.

POLICY IMPLICATIONS

The study facilitates in knowing the characteristics of the farmers which would provide guideline for the planners and extension agencies in planning and implementing programmes related to Integrated Pest Management in other areas.

The outcome of the study revealed that the majority of the respondents had favourable attitude towards Integrated Pest Management. So, efforts should be made to change attitude from favourable to most favourable by conducting training programmes and appropriate demonstrations related to Integrated Pest Management.

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CONFLICT OF INTEREST

No conflict of interest among researcher.

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