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Factors influencing the adoption of organic farming by the farmers of Karimnagar district of Andhra Pradesh

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ABSTRACT

The paper highlights the factors influencing the extent of adoption of organic farming by the organic and conventional cotton growing farmers of Karimnagar district of Telangana region of Andhra Pradesh. A sample of 60 organic and conventional cotton growing farmers each was taken from six villages of three Mandals of the district. Ex-post facto research design was followed for the study. Correlation analysis of the data revealed that the characteristics viz education, herd size, organic inputs utilization pattern, training received, decision making behavior and extension contact were found positively and significantly related with the extent of adoption of organic cotton practices by the organic cotton farmers whereas farm size was negatively and significantly related. Correlation analysis also revealed that the characteristics viz training received, decision making behaviour and extension contact were found positively and significantly related with the extent of adoption of organic cotton farming by the conventional cotton farmers.

Keywords: Organic cotton farming; level of adoption; organic and conventional cotton growers

INTRODUCTION

Cotton, 'the white gold' is the principal raw material for a flourishing textile industry in India. Among all cash crops cotton enjoys a pre-eminent position as it provides livelihood for over 60 million people both from the farming sector and industry. It is a principal commercial crop in India and is playing a pivotal role in the national economy. Cotton is an important crop for many developing countries as a source of income for its growers and as a source of foreign exchange; textiles and related exports of which at present are around 12 billion dollars with a potential for a significant increase in the coming years. Indian certified organic cotton production is 15 per cent of the total world production and it is about 37 per cent of the Asian production. Organic cotton leads among the products exported (16,500 MT). In Andhra

Pradesh cotton is an important cash crop and grown over an area of about 18.21 lakh ha (Anon 2011a). It is one of the leading states in cotton cultivation after Maharashtra and Gujarat. It is also the 3rd ranked state in productivity with 507 kg/ha after Gujarat and Punjab (Anon 2011b). In recent years farmers are gradually oriented to organically cultivate the cotton crop realizing the adverse effects of inorganic farming. The personal, social, psychological, economic, political and situational characteristics will drive an individual to form an opinion on any given psychological phenomena or technical know-how. These characteristics also propel the personnel to apply the learnt knowledge in real situations. Hence keeping this in view the present study was taken up.

METHODOLOGY

The state of Andhra Pradesh and the Telangana region were selected purposively for the study. The district Karimanagar of Telangana region was selected randomly. Ex-post facto research design was followed in the study. A sample of 60 organic and conventional cotton practicing farmers each from six villages of two Mandals of the district was taken randomly. The extent of adoption of organic and conventional cotton famers was measured with the help of a schedule developed for the study. The shedule comprised of 45 items on organic cotton farming. The selected profile characteristics for the study were age, education, farm size, farming experience, annual income, herd size, organic inputs utilisation pattern, trainings received and extension contact. An Interview schedule comprising of the adoption schedule and profile characteristics was used to collect the data from the respondent farmers.

RESULTS AND DISCUSSION

The association between selected profile characteristics and the extent of adoption of organic cotton farming by the organic and conventional cotton farmers was computed with the help of correlation coefficient ('r') values.

Relationship between profile characteristics and the extent of adoption of organic cotton farming by the organic cotton farmers

It is revealed from the Table 1 that calculated 'r' values between education, organic inputs utilisation pattern, trainings received, decision making behavior and the extent of adoption of organic cotton practices by the organic cotton farmers were greater than table 'r' value at 0.05 level of probability whereas the calculated 'r' value of the variables herd size and extension contact were greater than table 'r' value at 0.01 level of probability. Hence null hypothesis was rejected and empirical hypothesis was accepted. In case of farm size negatively significant correlation was

Table 1. Relationship between profile characteristics and the extent of adoption of organic cotton practices by the organic cotton farmers (n=60)

Characteristics	Correlation coefficient (r)
Age	0.120NS
Education	0.211*
Farming experience	0.0377NS
Farm size	-0.285*
Annual income	0.075 NS
Herd size	0.392**
Organic inputs utilisation pattern	0.238*
Training received	0.279*
Decision making behaviour	0.209*
Extension contact	0.420**

* Significant at 0.05 level of probability

** Significant at 0.01 level of probability

NS= Non Significant

observed with the extent of adoption of organic cotton practices by the organic cotton farmers as the calculated 'r' value was greater than the table 'r' value at 0.01 level of probability

The higher level of formal schooling and more number of trainings received by a farmer enhance his capacity to understand the intricacies involved in various organic cotton cultivation practices and applying them in the field situation hence a positive and significant relationship was observed between extent of adoption of organic cotton practices and the variables education and training received. If the size of farm holdings is big it is viable to apply more cotton cultivation practices. But with reference to organic cotton cultivation with the meagre availability of organic inputs the farmers are interested to apply these inputs greatly in small land holdings to visualise their results quickly hence the extent of adoption of organic cotton practices of organic cotton farmers was negatively and significantly correlated with the variable farm size. This results are in conformity with the findings of Prasad (2010), Yadav et al (2007) and Savitha (2009). The cattle folk is the main source of organic inputs. If the cattle size is more the amount of organic inputs received is high. Subsequently the farmers will apply more of these inputs in their fields. This might be the reason of

having positive and significant relationship between the extent of adoption of organic cotton practices of organic cotton farmers and the variables herd size and organic inputs utilisation pattern. The round the clock advise given by the extension personnel to the farmers on organic cotton practices directly influences their decision making behaviour on organic cotton farming and in turn adoption of these practices. Hence these two variables viz extension contact and decision making behaviour were positively and significantly related with the extent of adoption of organic cotton practices by the organic cotton farmers. These findings are in agreement with the results of Sivanarayana et al (2008) and Dinesh et al (2010).

Relationship between profile characteristics and the extent of adoption of organic cotton farming by the conventional cotton farmers

It is revealed from the Table 2 that the calculated 'r' values among trainings received, decision making behavior, extension contact and extent of adoption of organic cotton practices by the conventional cotton farmers were greater than table 'r' value at 0.05 level of probability. Therefore it can be concluded that there was a positive and significant relationship between the extent of adoption of organic cotton practices by the conventional cotton practices and the variables training received, decision making behaviour and extension contact.

On the other hand calculated 'r' values between age, education, farming experience, farm size, annual income, herd size, organic inputs utilization pattern and extent of adoption of organic cotton practices by the conventional cotton farmers were less than table 'r' value. Therefore it can be concluded that there was no significant relationship between the extent of adoption of organic cotton practices of conventional cotton farmers and age, education, farming experience, farm size, annual income, herd size and organic inputs utilization pattern.

The trainings attended by a farmer sharpen his knowledge, skills and comprehension abilities to acquire, process, understand and apply the information in his own field. The continuous guidance provided by the extension personnel supports him to examine and adopt the new technologies in the farming. A farmer who is having more competency to choose the best alternative among the given choices helps him to adopt innovative technologies in the field. Hence the variables extension contact, trainings received and decision making behaviour were positively and significantly related with the extent of adoption of organic cotton practices by the conventional cotton farmers. Hence these observations

Table 2. Relationship between profile characteristics and extent of adoption of organic cotton practices by the conventional cotton farmers (n= 60)

Characteristics	Correlation coefficient (r)
Age	0.0256 NS
Education	0.0137 NS
Farming experience	0.0238 NS
Farm size	0.072 NS
Annual income	0.090 NS
Herd size	0.0464 NS
Organic inputs utilisation pattern	0.1693 NS
Training received	0.2932*
Decision making behaviour	0.229*
Extension contact	0.256*

* Significant at 0.05 level of probability
** Significant at 0.01 level of probability
NS= Non Significant

are in conformity with the findings of Yadav et al (2002).

CONCLUSION

Correlation analysis between organic cotton respondents and profile characteristics revealed that independent variables viz education, herd size, organic inputs utilization pattern, training received, decision making behavior and extension contact were found positively and significantly related with the extent of adoption of the organic cotton practices whereas farm size was negatively and significantly related. Correlation analysis between conventional cotton respondents and profile characteristics also revealed that the independent variables viz trainings received, decision making behaviour and extension contact were found significantly related with the extent of adoption about the organic cotton practices.

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