International Journal of Farm Sciences **5(2)** : 212-216, 2015

Factors influencing adoption of package of practices of cotton by the members of farmer groups

D KARTHIK, A SAILAJA and R VASANTHA

Department of Agricultural Extension, College of Agriculture
Acharaya NG Ranga Agricultural University
Rajendranagar 500030 AP, India
Email for correspondence karthik.dharamkar@gmail.com

ABSTRACT

The paper highlights the factors influencing the extent of adoption of package of practices of cotton by the members of farmer groups in Warangal district of Andhra Pradesh. A sample of 40 cotton farmers was selected from Rythu Mitra group, farmer group of NGO and commodity interest groups of cotton taken from four villages of two Mandals of district. Ex post facto research design was followed for the study. Age and farming experience had positive and significant relationship with extent of adoption by the respondents whereas market facilities had non-significant relationship with extent of adoption. Communication and group cohesiveness of Rythu Mitra group and farmer group of NGO had positive and significant relationship with extent of adoption whereas commodity interest groups had non-significant relationship.

Keywords: Rythu Mitra; farming experience; market facilities

INTRODUCTION

In agriculture the groups with common interest can secure access to services such as training, credit, equipment etc. Lack of access to any of these could be a vital issue that an individual farmer faces and it gets resolved when he is in a group. This is particularly the case where farmers organize themselves as a response to credit and input needs, marketing concerns etc as there are clear economic benefits of working in groups. These include the ability of groups to buy seeds and fertilizers in bulk or access more distant markets etc. Working together can increase member's bargaining power which helps to share and lower risks of costs. In areas where farmers are scattered geographically and communication is difficult the importance of such organizations is greater. The personal and group related characteristics play significant role in adoption of practices by providing and understanding technical knowledge about practices to be followed. In this context a study has been undertaken to find relationship of adoption of practices of cotton in farmer groups with personal

and group related characteristics in Warangal district of Andhra Pradesh.

Prashanth and Reddy (2012) reported that 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. Sivanarayana et al (2008) studied the awareness and adoption of integrated pest management practices in cotton by the farmers of Warangal district in Andhra Pradesh.

Yadav et al (2007) reported that in Khargone district of Madhya Pradesh biological and mechanical practices were not adopted by the cotton growers due to lack of knowledge. The study also indicated that farmers having large holdings were better in adoption of IPM practices than medium and small. The correlation coefficients of nine variables namely land holding, socio-economic status, land under cotton crop, information seeking behaviour, extension participation, risk orientation, economic motivation, management orientation and innovativeness were positive and significant at 0.01 level of probability with adoption of IPM practices.

METHODOLOGY

An ex post facto research design was adopted for the study as the variables chosen for the study had already occurred. In Warangal district of AP two Mandals and two villages were selected from each Mandal randomly. Members of cotton farmer groups were selected as respondents. Ten farmers from each group viz Rythu Mitra group (G_1), farmer group of NGO (G_2) and commodity interest group (G_3) were selected from each village. 30 farmers from each village belonging to three groups and total of 120 farmers from entire district were selected for the study. Schedule was developed to measure extent of adoption of package of practices of cotton. Schedule comprised of 66 recommended practices through which the extent of adoption of respondents was measured. The selected personal characters were age, education, farm size, farming experience, annual income, trainings received, institutional support and market facilities. The selected group related characteristics were working age of the group, size of group, communication, group leadership, group cohesiveness and decision making pattern.

RESULTS and DISCUSSION

Correlation analysis

The relationship between personal and group characteristics of members of farmer groups and adoption of recommended package of practices were calculated by computing the correlation coefficient (r).

Personal characteristics

Age: Age of respondents of G_1, G_2 and G_3 had significant relationship with the extent of adoption. The reason might be that majority of respondents belonged to almost similar age group which made adoption of package of practices easier.

Education: The correlation coefficient indicates that education of respondents of G_2 had significant relationship with adoption whereas respondents of G_1 and G_3 had non-significant relationship. The reason for this could be that respondents with formal education had good social behaviour so that they were able to discuss with group members about agricultural practices and thus improve the adoption level.

Farm size: The farm size of respondents of G_1, G_2 and G_3 had non-significant relationship with adoption of package of practices. It can be inferred from the findings that total land owned by the respondents had influenced their adoption behaviour in respect of the recommended cotton cultivation technology.

Farming experience: The farming experience of respondents of G_1, G_2 and G_3 had significant relationship with adoption of recommended technology. This could be due the reason that respondents of three groups had similar farming experience.

Annual income: The annual income of respondents of G_1 and G_2 had significant whereas of G_3 had non-significant relationship with adoption of package of practices of cotton. The reason for this could be that respondents of G_1 and G_2 had similar annual income and G_3 respondents belonged to low income group.

Trainings received: The trainings received by respondents of G_1 and G_2 had significant relationship whereas G_3 respondents had non-significant relationship.

Institutional support: The institutional support received by respondents of G_2 had significant relationship with adoption whereas G_1 and G_3 had non-significant relationship. The respondents of G_2 had higher institutional support from the NGO and thus they were able to adopt the package of practices.

Market facilities: The market facilities of respondents of G_1, G_2 and G_3 had non-significant relationship with adoption.

Table 1. Correlation coefficient values of personal characteristics and adoption practices of cotton

Characteristic	Correlation coefficient 'r'		
	G_1	G_2	G_3
Age	0.331*	0.371*	0.325*
Education	-0.093^{NS}	0.390*	-0.075^{NS}
Farm size	0.259^{NS}	0.251^{NS}	0.142^{NS}
Farming experience	0.339*	0.355*	0.322*
Annual income	0.322*	0.352*	-0.280^{NS}
Trainings received	0.331*	0.335*	0.183^{NS}
Institutional support	0.238^{NS}	0.332*	0.195^{NS}
Market facilities	-0.080^{NS}	-0.295^{NS}	-0.336^{NS}

*Significant at 5% level of probability, **Significant at 1% level of probability,
NS= Non significant

Group related characteristics

Working age of group: The working age of group G_1 had positive and significant relationship with the extent of adoption whereas G_2 and G_3 had non-significant relationship with extent of adoption. This could be due to maturity of members in G_1.

Size of the group: The size of group had non-significant relationship with extent of adoption of G_1, G_2 and G_3. As size of group increases the interaction among members decreases.

Communication: Communication in the group had positive and significant relationship with extent of adoption of practices in G_1 and G_2 whereas G_3 had non-significant relationship with extent of adoption.

Group leadership: Group leadership of G_2 had positive and significant relationship with extent of adoption whereas G_1 and G_3 had non-significant relationship with extent of adoption.

Group cohesiveness: Group cohesiveness of respondents of G_1 and G_2 had positive and significant relationship with extent of adoption whereas respondents of G_3 had non-significant relationship with adoption. The reason for this could be that respondents of G_1 and G_2 had higher cohesiveness towards each other which resulted in better adoption of practices.

Table 2. Correlation coefficient values of group characteristics and adoption practices of cotton

Characteristic	Correlation coefficient 'r'		
	G_1	G_2	G_3
Working age	0.329*	-0.162^{NS}	0.226^{NS}
Size of group	-0.169^{NS}	0.226^{NS}	0.156^{NS}
Communication	0.358*	0.392*	-0.253^{NS}
Group leadership	0.240^{NS}	0.369*	-0.24^{NS}
Group cohesiveness	0.327*	0.348*	-0.325^{NS}
Decision making pattern	0.216^{NS}	0.371*	-0.489^{NS}

*Significant at 5% level of probability, **Significant at 1% level of probability,
NS= Non significant

Decision making pattern: Decision making pattern of respondents of G_2 had positive and significant relationship with extent of adoption whereas G_1 and G_3 had non-significant relationship.

CONCLUSION

Respondents of G_1 group had positive and significant relationship with respect to personal characteristics like age, farming experience, annual income and training received; with respect to group related characteristics working age, communication and group cohesiveness had positive and significant relationship. Respondents of G_2 had positive and significant relationship with respect to personal and group related characteristics like age, education, farming experience, training received, institutional support, communication, group leadership, group cohesiveness and decision making pattern. In respondents of G_3 age and farming experience with respect to personal characteristics had non-significant relationship with adoption of package of practices for cotton.

REFERENCES

Prashanth P and Reddy JM 2012. Factors influencing the adoption of organic farming by the farmers of Karimnagar district of Andhra Pradesh. International Journal of Farm Sciences **2(2):** 123-128.

Sivanarayana G, Ramadevi M and Venkataramaiah P 2008. Awareness and adoption of cotton (*Gossipium hirsutum* L): integrated pest management practices by the farmers of Warangal district in Andhra Pradesh. ANGRAU Journal of Research **36:** 33-40.

Yadav D, Patel MM and Choudhary RK 2007. IPM in cotton adoption and constraints. Journal of Cotton Research and Development **21:** 230-234.

Received: 22.1.2015 ***Accepted: 24.3.2015***