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Relationship between Profile Characteristics of Sugarcane Growers with Extent of Adoption of Sugarcane Technologies

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ABSTRACT

Sugarcane is one of the major cash crop of India, which is the home land of sugarcane cultivation and production. Sugarcane cultivation and development of sugar industry runs parallel to the growth of human civilization and is as old as agriculture. In the present scenario too, sugarcane and sugar continue to be important for India's rural economy. In Tamilnadu, Villupuram district is the first place for area under sugarcane cultivation, followed by Thiruvanamalai and Cuddalore in second and third place for area under sugarcane cultivation. The Cuddalore district was selected for study. From Cuddalore district, Panruti block was selected for study. From Panruti. block six villages were selected. A sample size of 120 was fixed for the study. The objective of the study was the relationship between profile characteristics of sugarcane growers with extent of adoption of sugarcane technologies. Out of the fifteen variables studied, seven variables viz.., educational status, farm size, area under sugarcane cultivation, mass media exposure, social participation, extension agency contact and economic motivation were found to have significant relationship with the extent of adoption of sugarcane technologies.

1. Introduction

Sugarcane is one of the major cash crop of India, which is the home land of sugarcane cultivation and production. Sugarcane cultivation and development of sugar industry runs parallel to the growth of human civilization and is as old as agriculture. In the present scenario too, sugarcane and sugar continue to be important for India's rural economy. About 6 million sugarcane farmers and large number of agricultural labourers are involved in sugarcane cultivation and ancillary activities constituting 7.5 per cent of rural population. Being the second largest agro-based industry next to the textile industry, it places a dominant role in both the agricultural and the industrial economy of the country. Unlike other crops, sugarcane has the unique agro-industrial potential. It provides useful raw material to over 25 industries to produce sugar, jaggery and a range of agro-industrial co-products such as alcohol, paper, a variety of chemicals, cattle feed and electricity. Therefore, for maintaining the food as well as industrial security, production of sugarcane becomes imperative. (Crop production Manual. 2016.). In Tamilnadu, Villupuram district is the first place for area under sugarcane cultivation, followed by Thiruvanamalai and Cuddalore in second and third place for area under sugarcane cultivation. The Cuddalore district was selected for the present study.

2. Specific objective of the study

The objective of the study was the relationship between profile characteristics of sugarcane growers with extent of adoption.

3. Review of Literature

Arockiyamary (2011) stated that age, farming experience, information seeking behaviour, information sharing behaviour, risk orientation, scientific orientation, decision making and educational status were found to have positive and significant relationship with adoption level of the respondents in groundnut cultivation.

Vinoth (2012) reported that innovativeness showed positive and significant relationship with adoption level of the respondents.

Kannan (2013) stated that age, occupational status, scientific orientation, training undergone, innovativeness and achievement orientation were found to have positive and significant relationship with adoption level of the respondents in maize cultivation.

Jeremy konsam (2014) stated that educational status, farming experience, extension agency contact, mass media exposure, risk orientation, scientific orientation, information seeking behaviour, innovativeness and training undergone were found to have positive and significant relationship with adoption level of paddy growers.

Loganathan (2015) observed that educational status, farming experience, extension agency contact, risk orientation and scientific orientation were found to have positive and significant relationship with adoption level of groundnut growers.

Suganya (2016) observed that educational status, farming experience, risk orientation, economic motivation, innovativeness were found to have positive and significant relationship with adoption level of sugarcane growers.

Priya (2017) observed that extension agency contact, farm size, mass media exposure, annual income, social participation and scientific orientation were found to have positive and significant relationship with adoption level of paddy growers.

4. Research Methodology

Cuddalore District in Tamil Nadu was selected for this study because of Cuddalore district ranks 3rd among the districts in Tamilnadu with maximum area and production in sugarcane. The maximum area criterion was followed in the selection of block. Among the fourteen blocks in Cuddalore district, Panruti block first place in area under sugarcane cultivation. Hence, this block was selected for study. A list of villages for the selected block was collected from Office of the Asst. Director of Agriculture, Panruti. From the list of villages six villages were selected from the block based on the maximum area under sugarcane cultivation. Thus a total of six villages were identified for the study. A sample size of 120 was fixed for the study considering the limitations of time and other resources. From the list of farmers in each of the selected villages, farmers cultivating sugarcane were identified.

5. Results and Discussion

Relationship between profile characteristics of sugarcane growers with extent of adoption of sugarcane technologies

Zero order correlation was computed to know the relationship of characteristics of the respondents with their extent of adoption of the sugarcane of sugarcane technologies. The results are given in table 1.

It could be inferred that the educational status showed positive and significant relationship with the adoption at one per cent level. Education not only added knowledge but also widens the horizons of individuals. Higher the education, wider will be the interaction with different sources and it increases their ability to grasp facts, analyses and interpret them in a better way to adoption. This finding derives support from the finding of Kannan (2013). Area under sugarcane cultivation showed positive and significant relationship with the adoption at one per cent level. The cultivators with large area under sugarcane cultivation tend to seek more information on adoption of farm technologies. This finding derives support from the finding of Loganathan (2017). Extension agency contact showed a positive and significant relationship with adoption at one per cent level. There is every chance for the farmers with extension agency contact to get upto date innovative information on sugarcane cultivation practices. This finding is in line with the finding of Prithiviraj (2009).

Economic motivation showed a positive and significant relationship with adoption at one per cent level. Generally the respondents with medium level economic motivation could adopt all the practices for enhancing their income and hence, there is a positive and significant relationship between economic motivation and extent of adoption. The finding is in line with the findings of Suganya (2016). Farm size showed positive and significant relationship with adoption at five per cent level. Majority of the respondents are comes under the big farmers, the farmers with more area might approach various sources of information. So this had greater associate with extent of adoption. This finding is in line with the finding of Kanagasabai (2013). Social participation showed positive and significant relationship with adoption at five per cent level. Farmers to interact and exchange farm information with other farmers. This might have helped the respondents in adopting recommended sugarcane cultivation practices. This finding is in line with the finding of Rajivgandhi (2010). Mass media exposure showed positive and significant relationship with adoption at five per cent level. This implies that mass media exposure had got direct influence on the extent of adoption of sugarcane cultivation. This finding is in line with the finding of Prithiviraj (2009).

Table 1.

Zero order correlation co-efficient of characteristics of sugarcane farmers with extent of adoption of sugarcane technologies

Variable No	Variables	'r' value
X1	Age	.052^{NS}
X2	Educational status	265**
X3	Occupation	-.015^{NS}
X4	Annual income	.104^{NS}
X5	Farm size	.223*
X6	Nature of family	.049^{NS}
X7	Area under sugarcane cultivation	.238**
X8	Experience in sugarcane cultivation	. 105^{NS}
X9	Mass media exposure	.188*
X10	Innovativeness	.074^{NS}
X11	Social participation	.227*
X12	Extension agency contact	.254**
X13	Risk orientation	.033^{NS}
X14	Scientific orientation	-.122^{NS}
X15	Economic motivation	.278**

** - Significant at 0.01 level

* - Significant at 0.05 level

NS - Non-significant

6. Conclusion

Out of the fifteen variables studied, seven variables viz.., educational status, farm size, area under sugarcane cultivation, mass media exposure, social participation, extension agency contact and economic motivation were found to have significant relationship with the extent of adoption of sugarcane technologies. Among the variables educational status, area under sugarcane cultivation, extension agency contact and economic motivation were found to have positive and significant relationship at one per cent level. Farm size, social participation and mass media exposure were found to have positive and significant relationship at five per cent level. Remaining eight variables viz., age, occupation, annual income, nature of family, experience in sugarcane cultivation, innovativeness, risk orientation and scientific orientation were found to be non-significant with extent of adoption of sugarcane technologies.

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