Knowledge of Cotton Growers in the Recommended Package of Practices of Cotton Cultivation

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Abstract

From the study it was found that majority of the respondents had medium levels of knowledge on recommended package of practices of cotton. The correlation analysis revealed that independent varibale, namely age, education, farming experience, contact with extension agency, mass media exposure, scientific orientation, risk preference, economic motivation, management orientation, achievement motivation, innovativeness and training undergone had positive and significant relationship with knowledge level of recommended package of practices of cotton.

Cotton, in a way, is a fift to the India sub-continent to human civilization. It enjoy a pride palce and unique position in our economy and continues to remain the backbone of the rural economy. Even today, despite the keen competition from technologically more advanced countires, Indian cotton textile, yarn, raw cotton and other cotton-based products are in great demand from any countires of the world and are highly valued for their beauty, durability and quality. It is an employment oriented industry. It has had a tremendous impact on the economy of the country since early times, despite the recent setback; cotton continues to remain as the backbone of the rural economy, particularly in the dry land areas.

The profitabilty of cotton cultivation to a very great extent depends upon control of pest and diseases and adoption of latest recommended practices. The deteriorated crop environment and failure of management techniques leading to total crop failure, farmers are runnint in to lossed in cotton cultivation. In view of non adoption or recommended package of practices, it is important to know whether farmers are having knowledge about recommended package of practices or not. But indentifying the areas in which farmers lack knowledge, the production technology can be communicated effectively to the farmers.

METHODOLOGY

Madurai district of Tamilnadu was purposively selected for conducting the research as the researcher hails from the district. Out of seven taluks of Madurai district two taluks and from each taluk two blocks was selected purposively for the study where large are in under cotton cultivation. Three village from each block were selected by following random sampling method thus making a total of six villages. From each village 20 cotton farmers were selected randomly thus making a total of 120 respondents.

RESULTS & DISCUSSION

Distribution of respondents based on their profile characteristics

Majority of the cotton farmers were middle aged (35.00%) with primary school education (25.84%) medium experience (35.00%), farming as main occuption (47.50%), small farm size (53.33%), medium contact with extension agency (47.50%), medium mass media exposure (38.34%), high scientific orientation (40.83%), high risk preference (51.67%), high economic motivation (39.17%), medium management orientation (39.17%), high achievement motivation (38.35%), medium innovativeness (47.50%) and low training undergone (54.16%) respectively.

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Knowledge Level of Cotton Growers on the Recommended Package of Practices of Cotton Production

The knowledge of the respondents about the recommended practices of cotton cultivation was measured with the help of knowledge test development for the study. The respondents were categorized into three groups based on mean and standard deviation, as presented in Table-1.

Table-1 reveals that, majority (*36.67%) of the respondents had medium level of knowledge about recommended practices of cotton cultivation followed by low (35.00%) and high (28.33%) knowledge levels.

Table -2 revealed that, there was a positive and significant relationship between knowledge level of respondents with their age, education, farming experience, contact with extension agency, mass media

Table : 1 Distribution of respondents according to their knowledge

(n=120)

S. No.	Level of Knowledge	Frequency	Percentage
1.	Low	42	35.00
2.	Medium	44	36.67
3.	High	34	28.33
	Total	120	100

Mean : 19.13 S.D. : 5.53

exposure, scientific orientation, risk preference, economic motivation, management orientation, achievement motivation, innovativeness and training undergone. Occupation and farm size were not significantly correlated with the knowledge level of the

Table 2 :   Relationship between selected independent variable and knowledge of cotton farmers about recommended practices

S.No.	Variable	Independent varibale	Correlation coefficients ('r' value)
1.	X_1	Age	0.641**
2.	X_2	Education	0.289**
3.	X_3	Farming experience	0.533**
4.	X_4	Occupation	-0.145NS
5.	X_5	Farm size	-0.136NS
6.	X_6	Contact with extension agency	0.286**
7.	X_7	Mass media exposure	0.260**
8.	X_8	Scientific orientation	0.237**
9.	X_9	Risk preference 0.209*	
10.	X_{10}	Economic motivation	0.278**
11.	X_{11}	Management orientation	0.268**
12.	X_{12}	Achievement motivation	0.333**
13.	X_{13}	Innovativeness 0.185*	
14.	X_{14}	Training undergone	0.261**

* : Significant at 0.05 level of probability
**: Significant at 0.01 level of probability
 NS: Non-significant

respondents about recommended practices in cotton cultivation.

Combined effect of all selected independent variables on knowledge of cotton farmers

In order to determine the combined effect of all the selected independent variables in explaining the

variation in knowledge of respondents, Multiple Linear Regression analysis was carried out. The computed coefficient of determination (R^2) value and partial regression coefficient (b) values with their corresponding 't' values were presented in Table-3. The 'R^2' and 'b' values were tested statistically for their significance.

From Table 3 it is evident that all the selected 14 independent variable put together about 50.10 per cent variation in the knowlede level of the respondents as indicated by R^2 value, which was significant. Thus it could

Table 3 : MLR Analysis of the selected Independent variables with the knowledge of respondents

S.No.	Independent variables	'b' values	't' values
1.	Age	0.778	4.672**
2.	Education	0.034	0.328
3.	Farming experience	0.086	-0.544
4.	Occupation	0.032	0.394
5.	Farm size	0.104	1.143
6.	Contact with extension agency	-0.221	-1.912
7.	Mass media exposure	0.200	1.754
8.	Scientific orientation	-0.098	-1.151
9.	Risk preference	0.185	1.258
10.	Economic motivation	-0.139	-1.061
11.	Management orientation	0.457	2.563*
12.	Achievement motivation	0.456	2.324*
13.	Innovativeness	0.046	0.541
14.	Training undergone	0.010	0.099

R^2=0.501

* : Significant at 0.05 level of probability

** : Significant at 0.01 level of probability

be concluded that the variables selected largely explained the variation in knowledge level of the cotton farmers. In other words, the variables selected for the study were relevant to the problem selected.

When partial regression coefficients were tested, it was observed that age, management orientation and achievement motivation were found to be positive and significant as indicated from their significant 't' values. It indicated that age, management orientation and achievement motivation had positively and significantly contributed for most of the variation in knowledge level of the cotton farmers about the recommended package of practices of cotton.

As the age increases the farmers experience increases, they know well about the cultivation practices of cotton. As a result of it their knowledge level also increases.

Management orientation denotes the responsibility of the farmers by the coordinated efforts in all fallible manners for more knowledge. Thus management orientation was found significant.

Achievement motivation makes a farmer to get

access to information sources leading to acquisition of new skills better interaction with other developmental departments. As a reslut knowledge level increase, thus achievement motivation was found significant.

CONCLUSION

The assessment of knowledge level of cotton growers revealed that majority of cotton growers had medium level of knowledge in the recommended package of practices cotton. Further, this study would throw light on the relationship as well as direct and indirect effects of personal and socio-economic factors associated with knowledge level of farmers on recommended practices of cotton. Besides, the study as a whole would serve as a foundation in building up body of knowledge with regard to the cotton cultivations.

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