A STUDY ON KNOWLEDGE LEVEL OF TURMERIC FARMERS IN ERODE DISTRICT OF TAMIL NADU

ABSTRACT

~~The study entitled "~~**A study on knowledge level of turmeric farmers in Erode district of Tamil Nadu~~"~~** was undertaken to ~~study~~ determine the relationship between knowledge level of turmeric farmers with the profile characteristics of the respondents. The study was conducted in Kodumudi block of Erode district in Tamil Nadu. ~~The sample of one hundred eleven~~ One hundred eleven sample of respondents were selected from five villages by using proportionate random sampling method. Fifteen independent variables and one dependent variable were selected to analyze the relationship of turmeric farmers profile characteristics with knowledge level. The data were collected with the help of a well-structured and pre-tested interview schedule. The collected data were analyzed with suitable statistical tools. A Positive significant relationship between occupation and knowledge level ~~occurred~~ was found at five per cent level of significance. The R^2 value of 0.543 revealed that ~~54.30 per cent of variation in the knowledge level was explained by the fifteen independent variables selected for the study~~ the fifteen independent variables explained 54.30 per cent of the variation in knowledge level. As evident from the results that the values of regression co-efficient of the variables, trainings undergone was found to be positive and significant at one per cent level of probability. This suggested a unit increase in trainings undergone would increase the knowledge level of the turmeric farmers on recommended turmeric cultivation practices by 0.649 units respectively.

Keywords : Knowledge, profile, probability and significance.

INTRODUCTION

Turmeric, known as 'Indian saffron' is an important commercial spice crop grown in India. Indian turmeric has been known to the world since ancient times. India is the largest producer, consumer and exporter of turmeric in the world. Turmeric is grown only in 6% of the total area under spices and condiments in India ~~and India is the largest producer and exporter of turmeric in~~

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~~the world~~ and accounts for 78 per cent of the world's total production. Further, ~~Turmeric~~ it is also occupied the second largest foreign exchange earner among Indian spices.

India consumes about 80.00 per cent of its total annual output and exports about 20.00 per cent of its turmeric per annum. Turmeric is the third ~~—~~largest spice exported from India~~.~~ ~~Turmeric~~ and its production ~~is~~ largely concentrated in southern states of India. The ~~M~~major turmeric growing states are Andhra Pradesh, Tamil Nadu, Orissa, West Bengal, Maharashtra and Karnataka. ~~Tamil Nadu enjoys higher yield of turmeric compared with most of other states.~~ In comparison with the majority of other states, Tamil Nadu produces the highest turmeric yield. The ~~M~~major turmeric growing districts in Tamil Nadu are Erode, Salem and Dharmapuri. In Tamil Nadu, ~~turmeric~~ it is cultivated in about 67246 ha with production of about 368411 tons with average productivity of 5.48 t/ha~~.~~ (Sundari, 2014). During the recent ~~past~~ years, Tamil Nadu has witnessed sharp decline in total production due to varied weather conditions and several other constraints. //

//~~With this background, the present study entitled "A study on knowledge level of turmeric farmers in Erode district of Tamil Nadu" was carried out with the following objectives~~

- ~~To analyze the relationship between profile of turmeric farmers with knowledge level.~~

//With this background "A study on knowledge level of turmeric farmers in Erode district of Tamil Nadu" was carried out to analyze the relationship between profile of turmeric farmer and their knowledge level.

METHODOLOGY

The study was carried out in Erode district of Tamil Nadu, since the district stands first in the area under turmeric cultivation. Erode district has fourteen blocks and among them Kodumudi block was purposively selected ~~since it had more area under turmeric cultivation.~~ (District Directorate of Statistics, Erode District, – 2017). In Kodumudi block, five villages viz., Vengapur, Punjai Kollanali, Oongalur, Kollathupalayam and Kodumudi which were having maximum area in turmeric were selected for the study. The sample of one hundred eleven respondents were selected from the five villages by using proportionate random sampling method. 15 independent variables viz., age, educational status, occupational status, annual

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income, farm size, experience in turmeric cultivation, extension agency contact, social participation, mass media exposure, trainings undergone, credit orientation, economic motivation, market intelligence, awareness on post-harvest practices and ICT tool utilization behavior were selected for the study. The ~~R~~relationship between profile characteristics of turmeric farmers with knowledge level was selected as dependent variables. The data were collected with the help of a well-structured and pre-tested interview schedule~~.~~ and ~~T~~the collected data were analyzed with suitable statistical tools.

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RESULTS AND DISCUSSION

Association and contribution of respondent's profile characteristics with knowledge level

The relationship of selected 15 independent variables to the knowledge level were studied through simple correlation and multiple regression analysis. The findings were presented and discussed below. The results have been presented in Table 1.

Association of profile characteristics with knowledge level

The relationship of selected 15 independent variables to the knowledge level were studied through simple correlation analysis. The findings were presented and discussed below. The results have been presented in Table 1.

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Table 1. Correlation of profile characteristics of respondent with their knowledge level

(n = 111)

S. No	Variables	"r" Value
X_1	Age	-0.123 ^{NS}
X_2	Education	**0.487****
X_3	Occupation	**0.228***
X_4	Annual income	**0.293****
X_5	Farm size	0.029 ^{NS}
X_6	Experience in turmeric cultivation	-0.064 ^{NS}
X_7	Extension agency contact	**0.524****
X_8	Social participation	**0.517****
X_9	Mass media exposure	**0.414****
X_{10}	Trainings undergone	**0.536****

X_{11}	Credit orientation	**0.275****
X_{12}	Economic motivation	-0.024 NS
X_{13}	Market intelligence	**0.369****
X_{14}	Awareness on post-harvest practice	0.169 NS
X_{15}	ICT tool utilization behavior	**0.433****

* - Significant at 5% level ** - Significant at 1% level

NS – Non Significant

Simple correlation analysis

~~It could be seen~~ The data pertaining from Table 1 revealed that, there existed a positive and highly significant relationship between education (X_2), annual income (X_4), extension agency contact (X_7), social participation (X_8), mass media exposure (X_9), trainings undergone (X_{10}), credit orientation (X_{11}), market intelligence (X_{13}), ICT tool utilization behavior (X_{15}) with knowledge level at one per cent level of significance. This might be due to the reasons that majority of the respondents had secondary school education, income level between one lakh and two lakhs, medium level of extension agency contact, social participation, mass media exposure, credit orientation, economic motivation and majority has attended one training under turmeric cultivation.//

//A Positive significant relationship between occupation (X_3) and knowledge level ~~occurred~~ recorded/observed at five per cent level of significance. This might be ~~due~~ owing to the ~~reasons that~~ most of the respondents had farming alone as their occupation which resulted in profound knowledge on turmeric cultivation practices.//

// However, ~~A~~age (X_1), farm Size (X_5), experience in turmeric cultivation (X_6), economic motivation (X_{12}), awareness on post-harvest practice (X14) showed a non-significant relation with knowledge level.//

//In general, more the education (X_2), annual income (X_4), extension agency contact (X_7), social participation (X_8), mass media exposure (X_9), trainings undergone (X_{10}), credit orientation (X_{11}), market intelligence (X_{13}), ICT tool utilization behavior (X_{15}), the more will be the chances for knowing and understanding the technologies and hence, the variables showed positive and significant association.~~.~~ //

//These findings on association of extension agency contact, social participation and mass media exposure with knowledge are in accordance with the findings of Shindhu (2015).

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Contribution of profile characteristics with knowledge level

The relationship of selected 15 independent variables to the knowledge level were studied through multiple regression analysis~~.~~ and ~~T~~the findings were presented (Table 2) and discussed below~~. The results have been presented in Table 2.~~

Table 2. Multiple regression co-efficient of profile characteristics of respondent with their knowledge level

(n = 111)

S. No	Variables	Partial regression co-efficient	Std error	t value
X_1	Age	0.031	0.023	1.381 ^{NS}
X_2	Education	0.236	0.108	**2.193***
X_3	Occupation	-0.261	0.209	-1.249 ^{NS}
X_4	Annual income	0.273	0.461	0.591 ^{NS}
X_5	Farm size	-0.036	0.147	-.243 ^{NS}
X_6	Experience in turmeric cultivation	-0.471	0.286	-1.649 ^{NS}
X_7	Extension agency contact	0.223	0.109	**2.043***
X_8	Social participation	0.169	0.072	**2.331***
X_9	Mass media exposure	0.104	0.100	1.041 NS
X_{10}	Trainings undergone	0.649	0.256	**2.533****
X_{11}	Credit orientation	-0.041	0.146	-0.279 ^{NS}
X_{12}	Economic motivation	0.016	0.036	0.453 ^{NS}
X_{13}	Market intelligence	0.124	0.090	1.379 ^{NS}
X_{14}	Awareness on post-harvest practice	-0.124	0.282	-0.441 ^{NS}
X_{15}	ICT tool utilization behavior	0.101	0.076	1.333 ^{NS}

* - Significant at 5% level

** - Significant at 1% level

NS – Non Significant

R^2 = 0.543

F = 7.514

Multiple regression analysis

Multiple regression analysis was performed to find out the extent of contribution of each variable towards the knowledge level of turmeric farmers on turmeric cultivation practices.

The R^2 value of 0.543 revealed that 54.30 per cent of variation in the knowledge level was explained by the fifteen independent variables ~~selected for the study.~~ and ~~T~~the "F" value ~~was~~ also showed significant level at one per cent ~~level of significance~~. Hence, the results ~~fit~~ are consistent with ~~in~~ the regression equation.

The prediction equation was fitted for knowledge level of the respondents and is given below.

$Y = 23.691 + 0.031\ (X_1)^{NS} + 0.236\ (X_2)^{*} - 0.261\ (X_3)^{NS} + 0.273\ (X_4)^{NS} - 0.036\ (X_5)^{NS} - 0.471\ (X_6)^{NS} + 0.223\ \ (X_7)^{*} + 0.169\ (X_8)^{*} + 0.104\ (X_9)^{NS} + 0.649\ (X_{10})^{**} - 0.041\ (X_{11})^{NS} + 0.016\ (X_{12})^{NS} + 0.124\ (X_{13})^{NS} - 0.124\ (X_{14})^{NS} + 0.101\ (X_{15})^{NS}$

As evident from the results revealed that the values of regression co-efficient of the variables, trainings undergone (X_{10}) was found to be positive and significant at one per cent level of probability. This suggested a unit increase in trainings undergone would increase the knowledge level of the turmeric farmers on recommended turmeric cultivation practices by 0.649 units respectively. This implies that respondents who had attended training were generally knowledgeable regarding recommended turmeric cultivation practices. //

//The variables namely educational status (X_2), extension agency contact (X_7), social participation (X_8) ~~was~~ were found to be positive and significant at five per cent level of probability. ~~This suggested~~ Based on this data, it was determined that a unit increase in educational, extension agency contact, social participation would increase the knowledge level of the turmeric farmers on recommended turmeric cultivation practices by 0.236, 0.223 and 0.169 units respectively.//

//Other variables such as age (X_1), occupational status (X_3), annual income (X_4), farm size (X_5), experience in turmeric cultivation (X_6), mass media exposure (X_9), credit orientation (X_{11}), economic motivation (X_{12}), market intelligence (X_{13}), awareness on post-harvest practice (X_{14}), ICT tool utilization behavior (X_{15}) were found as non-significant variables respectively.

CONCLUSION

The study showed that majority of the turmeric farmers were educated and hence, literature pertinent to the modern methods of cultivation of turmeric may be provided to the

farmers in order to make them in tune with the present trend in turmeric cultivation. ~~The study~~ It is revealed that the mass media exposure of most the respondents were medium to high and hence, the mass media may be utilized effectively to transfer the improved technologies in turmeric cultivation and post-harvest handlings. For the practices in which the turmeric farmers were lacking awareness and knowledge, they must be educated through proper educational efforts. By conducting method demonstration on the complex practice, the farmer's skills could be improved. Also, by organizing result demonstration, the farmers could be convinced to adopt all the packages of practices recommended for turmeric cultivation.

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Comment [UT10]: References need to reform as per journal guidelines

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