

**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 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 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. Positive significant relationship between occupation and knowledge level occurred at five per cent level of significance. The R^2 value 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. As evident from the results that the values of regression coefficient 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 the world and accounts for 78 per cent of the world’s total production. Further, Turmeric is 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 production is largely concentrated in southern states of India. 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. Major turmeric growing districts in Tamil Nadu are Erode, Salem and Dharmapuri. In Tamil Nadu, turmeric 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 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.

METHODOLOGY

The study was carried out in Erode district since the district stands first in the area under turmeric in Tamil Nadu. 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 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. Relationship between profile characteristics of turmeric farmers with knowledge level was selected as dependent variable for the study. 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.

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.

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 from Table 1 that, there existed a positive and 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.

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

Age (X_1), farm Size (X_5), experience in turmeric cultivation (X_6), economic motivation (X_{12}), awareness on post-harvest practice (X_{14}) 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).

Contribution of profile characteristics with knowledge level

The relationship of selected 15 independent variables to the knowledge level were studied through multiple regression analysis. The findings were presented 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	Std error	t value
-------	-----------	--------------------	-----------	---------

		co-efficient		
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	-0.243 ^{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

$$R^2 = 0.543$$

** - Significant at 1% level

$$F = 7.514$$

NS – Non Significant

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 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 “F” value was also significant at one per cent level of significance. Hence, the results fit 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 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 found to be positive and significant at five per cent level of probability. This suggested 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 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. 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.

REFERENCE

District Directorate of Statistics, Erode District – 2017.

Kesarkar. S.A, V.G. Raj Narayan, V.Y. Patil and Gaonkar. (2012). Cashew Nut Cultivation in Goa State with Special Reference to Organic Cultivation Practices. *Indian Research Journal of Extension Education*.

Nithin. D. Ovhar. 2013. Adoption of improved cultivation practices of turmeric by farmers. *Periodic research*. 2(2).

Sawant, M.S., Gedam, V.B. and Hadole. S.M. (2012) . Profile of the farmers adopting turmeric production technology. *International Journal agricultural Sciences*. 8(2): 311-315.

Shindhu. 2015. An analytical study on turmeric growers in erode district of Tamil Nadu. Unpub. M.Sc. (Ag.) Thesis, AC&RI, TNAU, Madurai.

Thiripurasundari and Selvarani. (2014). Production of Turmeric in India: An Analysis. *The International Journal Of Business & Management*. 2(9): 230.

www.indianspices.com