## Critical analysis of adoption behavior of turmeric cultivators in Tamil Nadu State

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#### **ABSTRACT**

In the regime of IPR, turmeric crop is getting lot of attention due to its abundant economic value. In India, Tamil Nadu state occupied the second rank in area and production of turmeric cultivation followed by Andhra Pradesh. The average yield of turmeric in Tamil Nadu state is 6.08 tones per hectare however it is lower than the potential yield of 8 tones per hectare. But by following the recommended package of practices the farmers can still improve their yield from 7 to 8 tones per hectare. In this juncture analyzing the gap between the farmers' practices and recommended scientific practices is a first and foremost pragmatic step, which will pave the way towards the sustainable turmeric cultivation. A study has been undertaken with the 120 respondents during the year of 2000 in the 24 selected hamlets of Erode district. To calculate the adoption level of farmers, the weightage score for different practices were obtained from horticultural scientists of TNAU. The survey has been undertaken with the well-structured, pre-tested interview Schedule and the data were subjected for the statistical analysis. This study reveled that 65.83 per cent of the respondents belonged to medium adoption category with mean adoption score of 69.13. Majority of the farmers followed the seed rate as per the recommendation and majority of the respondents has been applying the FYM and chemical fertilizer as more than recommended.

Key words: Turmeric, Adoption, Weightage, and Technology

#### INTRODUCTION

India is known as the "Land of Spices". At present India is the largest producer, consumer and exporter of spices in the world. A wide variety of spices are produced in the country. Among various spices grown, turmeric is the second largest spice with a share of 21 per cent followed by chilli (32 per cent) in the total spice production.

Turmeric is an important spice derived from a rhizome (a type of root) native to India and Southeast Asia. India has 185.32 lakh hectares under turmeric cultivation with a total production of 701.66 lakh tones. Among all the state in India, Tamil Nadu is ranked second with area of 33 lakh hectares and with production of 158.64 lakh tones followed by Andhra Pradesh. In Tamil Nadu, Erode district occupied the first place in area and production of turmeric cultivation. In the IPR regime, the economic value of turmeric crop is abundant and valid. It is mainly used as food flavored and colorant and it has been mainly used for various medicinal purposes and beautification purposes also.

The average yield in Tamil Nadu state is 6.08 tones per hectare but it is lower than the potential yield of 8 tones per hectare. The fact is that all the farmers are not getting the potential yield, but by following the recommended package of practices, farmers can get the yield from 7 to 8 tones per hectare. So analyzing the gap between the farmers' practices and recommended scientific practices is a first and foremost pragmatic step, which will pave the way towards the sustainable turmeric cultivation. This paper discussing this issue with the objective that to study the extent of adoption of improved cultivation practices of turmeric cultivators.

### MATERIALS AND METHODS

Erode district was selected for the study because it ranks first in area under turmeric cultivation in Tamil Nadu state. A multistage stratified random sampling technique was employed. Of the seven taluks of Erode district, three taluks were selected, as they occupied first three places in area under turmeric cultivation. From each taluks, two blocks were selected and from each block two revenue villages were selected based on the criteria of maximum area under turmeric cultivation. Further from each revenue village, two hamlets were selected by simple random sampling and thus totally 24 hamlets were selected for the study.

There were not many variations in number of turmeric cultivators in each hamlet. A list of farmers growing turmeric crop in the selected hamlets had been obtained from the AAOs (Assistant Agricultural

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Officer) of the particular area. From this list, five cultivators were selected from each hamlet by simple random sampling and thus a total of 120 respondents have been selected for this study. Keeping the objective and scope in mind, a well-structured interview schedule was prepared and it was pre tested in a non-sampling area. The data were collected with the interview schedule and tabulated for statistical analysis.

# Determination of adoption score for different practices based on importance and waightage:

It is a fact that all the practices do not demand equal competence and contribute equally to the yield. So to determine the weightage for different practices; a list of practices of turmeric cultivation was sent to the horticultural scientist of TNAU and they were asked to assign scores to each of the practices out of total 100 scores. The average score thus obtained was considered as weightage of that practices. The mean weightage for the individual practices are given in Table-1.

Further in order to be more scientific in the calculation of total adoption score, it was also felt essential to consider the partial adoption of the respondents. The assignment of weightage for partial adoption was based on relative scoring according to the quantity actually used, taking into consideration the total score assigned to those practices.

Table 1 : Mean weightage for the individual practices:

Recommended practices	Mean weightage
Use of recommended variety	11
Sowing season	10
Proper seed rate	8
Seed treatment	6
Application of FYM	6
Application of bio-fertilizer	5
Application of chemical fertilizer	11
Application of micro-nutrient	5
Irrigation	7
Intercropping	5
Intercultural operation	5
Plant protection measures	10
Harvesting (time and method)	5
Curing	3
Polishing	3