



## A Study on the Production of Turmeric in Erode District, Tamil Nadu

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### ABSTRACT

Production and export of turmeric has a significant impact on the economic development of the country. Turmeric cultivation not only contributes to the welfare of humanity but also provides significant socio-economic benefits to the society through the creation of employment opportunities (job supply chains), commodity development and increased exports. India has the highest curcumin content in the turmeric it produces which makes it highly wanted by all major countries in the world. It gives a competitive edge to India over others. In this regard the present study has been undertaken to get an idea about the production of turmeric in Erode district in Tamil Nadu with the help of published data the area, production and productivity of turmeric in Erode district have been analysed. A note on cost of cultivation and net income from turmeric has been prepared. It has been found that in spite of relatively higher investment (being an annual crop) the per hectare net income from turmeric has been good.

### KEYWORDS

#### Introduction

India is the largest producer, consumer and exporter of turmeric in the world. Indian turmeric is considered to be the best in the world market because of its high curcumin content. India accounts for about 80 per cent of world turmeric production and 60 per cent of world exports. Other major producers are Pakistan, China, Haiti, Jamaica, Peru, Taiwan and Thailand. Asian countries consume much of their turmeric production.

The important turmeric growing states in India are Andhra Pradesh, Tamil Nadu, Orissa, Maharashtra, Assam, Kerala, Karnataka and West Bengal. Andhra Pradesh occupies 40 per cent of the total turmeric area followed by Orissa (17%) and Tamil Nadu (13%). In terms of production Andhra Pradesh accounts for 60 per cent of total turmeric production in India followed by Tamil Nadu (13%) and Orissa (12%).

#### Statement of the Problem

More than 50 million people are engaged in the cultivation and processing of turmeric. India exports turmeric based products to over 200 countries. India has the highest curcumin content in the turmeric it produces which makes it highly wanted by all major countries in the world. It gives a competitive edge to India over others. In this regard an analysis on area, production and productivity, cost of cultivation of turmeric in a district and would be felt as necessary.

#### Objectives of the Study

1. To study the area, production and productivity of turmeric in Erode district.
2. To examine the cost of cultivation and net income from turmeric cultivation.

#### Source of Data and method of Analysis

Secondary data were collected from the publications of Spice World and Annual Reports of Spices Board and Agricultural and Processed Food Products Export Development Authority (APEDA). The study covered a period of 13 years from 2000-01 to 2013-14. However, for thirteen years (2001-02, 2010-11 and 2012-13.) the collected data were analysed with the help of Annual Growth Rate (AGR) and Compound Growth Rate (CGR).

#### Area under cultivation of Turmeric in Erode District

The data regarding area under cultivation of Turmeric production in Erode District during the period 2001-01 to 2013-14 were given in table 1.

**Table 1 Area under cultivation of Turmeric in Erode District**

Year	Area (Ha)	AGR
2000-01	10664	-
2001-02	NA	-
2002-03	6135	-42.47
2003-04	5862	-4.45
2004-05	8025	36.90
2005-06	8586	6.99
2006-07	9219	7.37
2007-08	7882	-14.50
2008-09	8365	6.13
2009-10	9854	17.80
2010-11	NA	NA
2011-12	12857	30.47
2012-13	NA	NA
2013-14	8179	-36.38
CGR	-2.10	

**Source:** Spices Board

The area under the cultivation of turmeric has fluctuated greatly during the study period. The area under Turmeric cultivation in Erode district has decreased in 2002-03 and 2003-04 and again increased in the year 2011-12 but declined in 2013-14. The area under cultivation was maximum (12857 hectares) in 2011-12 and the lowest was (5862 hectares) in the year 2003-04. This may be due to the fluctuations in the price of turmeric in the market.

The compound growth rate of the area under Turmeric cultivation in Erode district worked out as -2.10 reflecting the decline that happened during the period under study.

#### Production of Turmeric in Erode District

The data regarding the production of Turmeric in Erode district during the period 2001-01 to 2013-14 were given in table 2.

**Table 2 Production of Turmeric in Erode District**

Year	Production (MT)	AGR
2000-01	65697	-
2001-02	NA	-
2002-03	28781	-56.19
2003-04	32566	13.15
2004-05	60470	85.68
2005-06	61813	2.22
2006-07	68821	11.34
2007-08	54869	-20.27
2008-09	52872	-3.64
2009-10	56673	7.19
2010-11	NA	NA
2011-12	65108	14.88
2012-13	NA	NA
2013-14	40641	-37.58
CGR	-3.77	

**Source:** Spices Board

The production of turmeric during thirteen years in Erode district has shown a fluctuating trend. The highest production of turmeric was 68821 MT in 2006-2007 with an annual growth rate of 11.34. The compound growth rate of production of turmeric was negative at -3.77% showing the sharp decline in the production between 2000-01 and 2013-14.

#### **Productivity of Turmeric in Erode District**

The productivity of Turmeric in Erode district during the period 2000-2014 was calculated and given in table 3.

**Table 3 Productivity of Turmeric in Erode District**

Year	Productivity (MT/ha)	AGR
2000-01	6.16	-
2001-02	NA	-
2002-03	4.69	-23.86
2003-04	5.56	18.55
2004-05	7.54	35.61
2005-06	7.20	-4.51
2006-07	7.47	3.75
2007-08	6.96	-6.83
2008-09	6.32	-9.20
2009-10	5.75	-9.02
2010-11	NA	NA
2011-12	5.06	-12.00
2012-13	NA	NA
2013-14	4.97	-1.78
CGR	-1.70	

**Source:** Spices Board

The productivity of turmeric in Erode district increased between 2002-03 and 2006-07 but decreased thereafter. It was very low during two years (2002 -03 and 2013-14) and this may be due to water availability and low rainfall. All these fluctuations were reflected in annual growth rates and in the negative value of compound growth rate.

#### **Cost of Cultivation of Turmeric**

The National Horticultural Board published data on the cost of cultivation and net income from turmeric cultivation. These data were taken into account for analysis.

**Table 4 Cost of cultivation of Turmeric (Amount / acre)**

Turmeric	Amount (in Rs)	Percentage
Field Preparation	6000	13
Nursery and Planting / Sowing	10000	22
Weeding	8000	18
Plant Preparation	8000	18
Fertilizers	8000	18
Wages	5000	11
Total	45000	100

**Source:** National Horticultural Board, TNAU Agritech Portal

The cost of cultivation of turmeric per acre comes to Rs 45000. It is an annual crop and involves more labour. The cost of seed was always high (22%) followed by weeding, plant preparation and fertilizers. As it required manure and fertilizers at the initial state itself the cost of field preparation was also high (13%).

#### **Costs and benefits of Turmeric**

A guideline value was given by the National Horticultural Board (NHB) on the yield, and market price range. With this the net income as been worked out.

Turmeric	Amount (in Rs)
Cost of Cultivation	45000
Yield (MT/ha)	5
Net Income (Rs.) at the lowest price	55000@Rs 2000/Q
Market Price range (Rs.)	2000-4000/Q

**Source:** National Horticultural Board, TNAU Agritech Portal

By assuming the yield per hectare is 5 MT and the price per quintal as 2000 the net income works out to Rs 5,500. If the price is taken as Rs 4,000 per quintal the net-income per hectare works out to Rs 1, 10,000.

#### **To Sum Up**

The turmeric production in Erode district has increased gradually during the period under study. At the same time it has been reported that the price of turmeric is fluctuating greatly. The government should take steps to bring in an open pricing system which will help the farmers in receiving fair prices for their produce and also increase their standard of living. A better government control will help in reducing the malpractices at the turmeric market in Erode.

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