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A STUDY ON PRODUCTION OF TURMERIC IN INDIA

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ABSTRACT:
Though turmeric has a 5000 year old history in India, cultivation practices have not been adequately researched. As a result productivity has been , at best, moderate. As this wonder spice now get global recognition for its tremendous medicinal value, better cultivation method need to be adopted. Turmeric, Curcuma longa Linn (Haldi) of the Zingiberaceae family, is native to India and Southeast Asia. India is the largest producer, consumer and exporter of turmeric. The world production of turmeric stands at around 8,00,000 tonnes, of which India has a share of approximately 75-80 per cent. India consumes about 80 per cent of its own production. Turmeric is also cultivated in China, Myanmar, Nigeria and Bangladesh. The highest cultivated area is in India, which constitutes 82 per cent. Hence, this paper makes an attempt to analyze the prospects of Turmeric production in India including the state wise production of turmeric in India.

KEYWORDS
The production Turmeric in India, the state wise production and Prospects of turmeric production in India.

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1.INTRODUCTION :

Turmeric is a tropical perennial plant, native to India and Indonesia and is cultivated throughout the tropics around the world. It is known as the 'Golden Spice of life' and is one of the most essential spices used as an important ingredient in culinary all over the world. It is an important commercial spice grown in India. India Turmeric is considered best 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% world's total production. Further, Turmeric in second largest foreign exchange earner among Indian spices. India consumes nearly 80% of turmeric.

The main turmeric producing states in India are Andhra Pradesh, Tamilnadu, Orissa, West Bengal, Maharashtra, Karnataka, Kerala. Maximum area under turmeric cultivation is in Andhra Pradesh (71.61 thousand ha), where production is very high i.e.371.64 thousand tones. Then comes Tamilnadu, Orissa and West Bengal. In case of production major share is taken by Andhra Pradesh accounted to 31.11% of total turmeric production in India, followed by Tamilnadu. In Tamilnadu, turmeric is cultivated in about 67246 ha with production of about 368411 tons with average productivity of 5.48 t/ha. Major turmeric growing district are Erode, Salem and Dharmapuri.

2. REVIEW OF LITERATURE

Review of literature is an essential aspect which helps the researcher to get more acquainted with the subject matter and directs the efforts towards the desired goal. The related studies are presented below.

Karthirvel and Maniam (1999) studied turmeric as one of the major spices cultivated in India, in an area of ,1,24,600 ha with a production of 487.6 lakh tones. It is grown largely in Andhra Pradesh, Tamilnadu, Orissa, West Bengal, Kerala, Assam and Maharashtra. Turmeric production results in earning foreign exchange by export of turmeric powder. Tamilnadu accounted for 12.2% of the total area and 17.2% of production of turmeric during 1996-1997. The general practice in conventional method of harvesting is to wet the crop after the removal of the cut foliage and the turmeric rhizomes are dugout after a week by skilled labourers with a special fork type of spade/pick axe. Normally turmeric digging is done by contract labour who demand very high wages during the peak season.

Ramarao et.al., (1995) conducted a study on turmeric cultivation in Andhra Pradesh. It has about 18000 hectares under turmeric cultivation and accounts for 30% of 50% of the total production of this valuable commodity in the country. A number of varities are grown in different parts of the state but no systematic study has been carried out on their performance. With a view to avoid disease free high yielding varieties a scheme for research on turmeric was therefore initiated in the state at paddapalem during 1955 under the spices of Indian council of Agricultural Research.

A study conducted by Singh (1995) on production of turmeric in Bihar indicates that area, Production, Productivity of turmeric in the state of Bihar is expected to increase and the state is likely to become a surplus state with respect to turmeric production by the end of the century. The study recommends for extending improved technology of turmeric production in a big way to the farmers in order to increase the productivity. Garge et al., (1977) used the random sampling method for estimation of production of turmeric and have found out that the area which harvested the crop was estimated as 1741 hectares which yielding 5858 tones of dry cured turmeric. The average yield at the district level was

estimated at 190.66 quintals per hectare in terms of raw rhizome.

3. IMPORTANCE OF THE STUDY

The principal use of turmeric worldwide is a major ingredient in curry powder, but it is also used in other spice mixes. It was treasured by the ancient not only for its fragrance and flavour but also for its brilliant yellow color. It is mentioned in the 'Vedas' that turmeric had been used at the time on marriages, workship and other religious ceremonies of the Hindus even known its considered a sign of good omen at given prominence at the time of festival etc. Turmeric has been used as an ingredient in Ayurvedic and Unani system of medicine in India for ancient times. It is claimed to be a stomach tonic, blood purifier, anthithistance, antacid, antipreidc and carminative. Turmeric as a flavor agent and for importing digestion. It is added not only for-coloring but also for increasing the flour and hotness of the food. It is used in pickles as a preservative and also as coloring matter for butter, cheese and other foodstuffs. In most of the Asian countries, turmeric is used as a food additive in almost all vegetables, meat and fish preparations. In the textile industry, turmeric was used as a dye for silk, cotton and wool, though it is no longer used as a dye due to lack of fastness. In the cosmetics in pharmaceutical industry, it is extensively used in preparations of indigenous medicines, turmeric is also an important spice used in culinary preparation.

An attempt has been made in this article to Study the production performance of turmeric in India for the period of Nine years form 2003-2004 to 2011-2012. The prospects of Turmeric production in India is analysed including the state wise production of turmeric in India.

4. OBJECTIVES OF THE STUDY

- To present an overview of India's turmeric Production.
- To analyze the state-wise production of turmeric in India.

5. METHODOLOGY

The present study based on secondary data. The data were collected from various books, Journal, magazines and Websites. Trend analysis has been used for analyzing the collected data.

6. PRODUCTION OF TURMERIC IN INDIA

Turmeric is a spice obtained from the rhizomes of Curcume - a perennial plant of the ginger family probably originating in South India but now grown widely throughout Asia. It is also cultivated elsewhere, especially in some American countries and on the Caribbean and Pacific Island. It is a tropical crop that can be grown on different types of soils both under irrigated and rain-fed conditions. Rich loamy soils having good drainage are ideal for the turmeric crop. In order to cultivate turmeric organically, an isolation distance of 25 meters wide all around is to be left in a conventional farm. It being an annual crop, the conversion period required is two years. Turmeric can be cultivated organically as an inter-crop with other crop provided organic methods of cultivation are followed for all the companion crops. India has a near monopoly in turmeric production. It is the principal producer of turmeric followed by China, Pakistan, Thailand, Taiwan and Burma. India is also the world's largest exporter of turmeric, accounting for more

than 50 per cent of the world trade.

7. MAJOR TURMERIC GROWING STATES IN INDIA

The area under turmeric cultivation and quantity of turmeric production of major turmeric growing states are shown in the following tables. The major turmeric cultivating states in India are Andhra Pradesh, Tamilnadu, Orissa, est Bengal, Maharashtra, Karnataka, Kerala. The average results indicate that Andhra Pradesh produces the maximum quantity and also has the largest area of turmeric cultivation. Next to it are Tamilnadu and Orissa as significant turmeric cultivation states in India.

7.1. Turmeric Production in Andhra Pradesh

Year	Area (hectares)	Quantity in Tonnes	Trend %
2003-04	58,440	3,20,680	**100**
2004-05	60,360	4,178.20	**130**
2005-06	69,990	5,18,550	161
2006-07	61,680	2,49,490	77
2007-08	56,820	2,83,540	88
2008-09	61,607	4,03,228	125
2009-10	59,475	3,64,044	113
2010-11	69,159	4,66,928	145
2011-12	81,170	5,06,855	157

Table 1: Turmeric Production in Andhra Pradesh
Source: Indian Spices Board

In the above table I reveals that year 2003-04 the cultivated area of turmeric was 58,440 and also production of 3,20,680 tonnes. For the year 2011-12 the cultivated area was increased to 81,170 hectares and production also increased to 5,06,855 tonnes. The trend per cent also increased during the period.

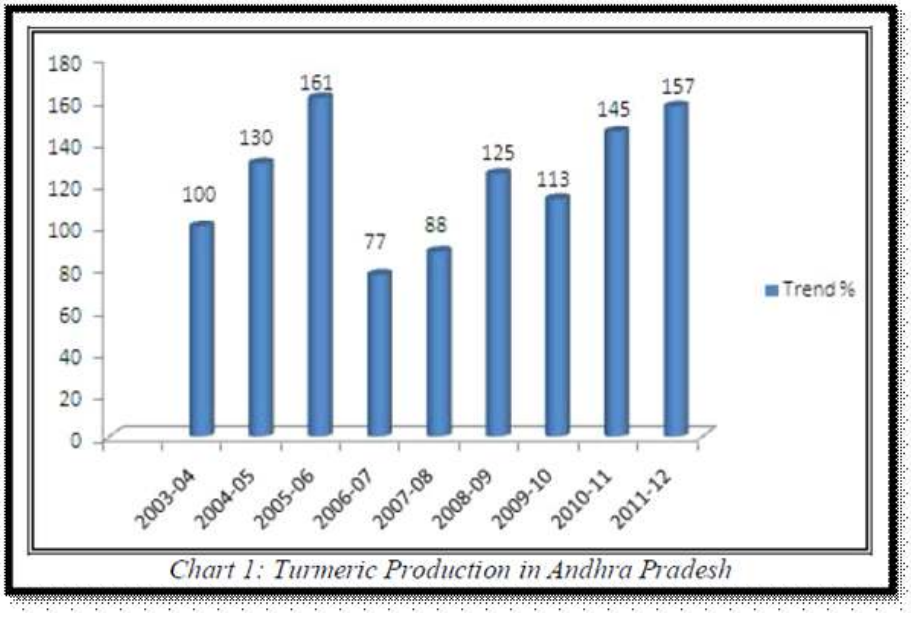

Chart 1: Turmeric Production in Andhra Pradesh

7.2. Turmeric Production in Tamil Nadu

Year	Area (hectares)	Quantity in Tonnes	Trend %
2003-04	16,186	67,250	100
2004-05	21,620	1,18,450	176
2005-06	25,970	1,433,80	213
2006-07	23,640	1,18,260	176
2007-08	17,300	64,540	96
2008-09	34,637	1,72,334	256
2009-10	33,368	1,69,311	252
2010-11	51,446	2,77,980	414
2011-12	67,246	3,68,413	549

Table 2: Turmeric Production in Tamil Nadu
Source: Indian Spices Board

In the above table II reveals that year 2003-04 the cultivated area of turmeric was 16,186 and also production of 67,250 tonnes. For the year 2011-12 the cultivated area was increased to 67,246 hactares and production also increased to 3,68,413 tonnes. The trend per cent also increased during the period.

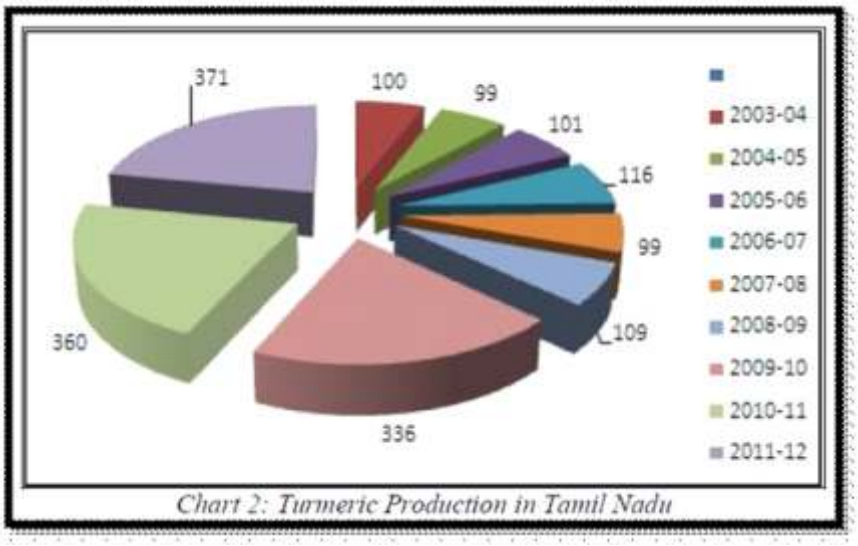

Chart 2: Turmeric Production in Tamil Nadu

7.3. Turmeric Production in Orissa

Year	Area (hectares)	Quantity in Tonnes	Trend %
2003-04	23780	56420	**100**
2004-05	23550	55980	**99**
2005-06	24020	57090	101
2006-07	27140	65850	116
2007-08	23640	55970	99
2008-09	25110	61500	109
2009-10	25320	189350	336
2010-11	26830	202920	360
2011-12	26880	209080	371

Table 3: Turmeric Production in Orissa
Source: Indian Spices Board

In the above table III reveals that year 2003-04 the cultivated area of turmeric was 23,780 and also production of 56,420 tonnes. For the year 2011-12 the cultivated area was increased to 26,830 hactares and production also increased to 2,09,080 tonnes. The trend per cent also increased during the period.

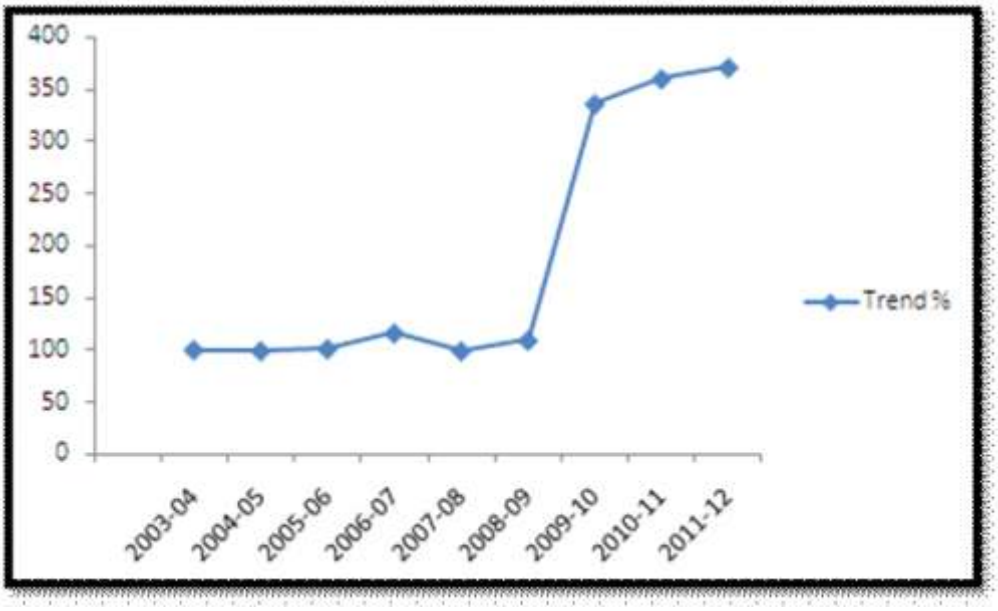

Chart 3: Turmeric Production in Orissa

7.4. Turmeric Production in Karnataka

Year	Area (hectares)	Quantity in Tonnes	Trend %
2003-04	5410	26380	**100**
2004-05	5410	26380	**100**
2005-06	5410	26380	**100**
2006-07	6710	35600	135
2007-08	6600	28600	108
2008-09	15320	93817	354
2009-10	17872	65780	248
2010-11	18035	90448	341
2011-12	25439	128245	483

Table 4: Turmeric Production in Karnataka
Source: Indian Spices Board

In the above table IV reveals that year 2003-04 the cultivated area of turmeric was 5,410 and also production of 26,380 tonnes. For the year 2011-12 the cultivated area was increased to 25,439 hectares and production also increased to 1,28,245 tonnes. The trend per cent also increased during the period.

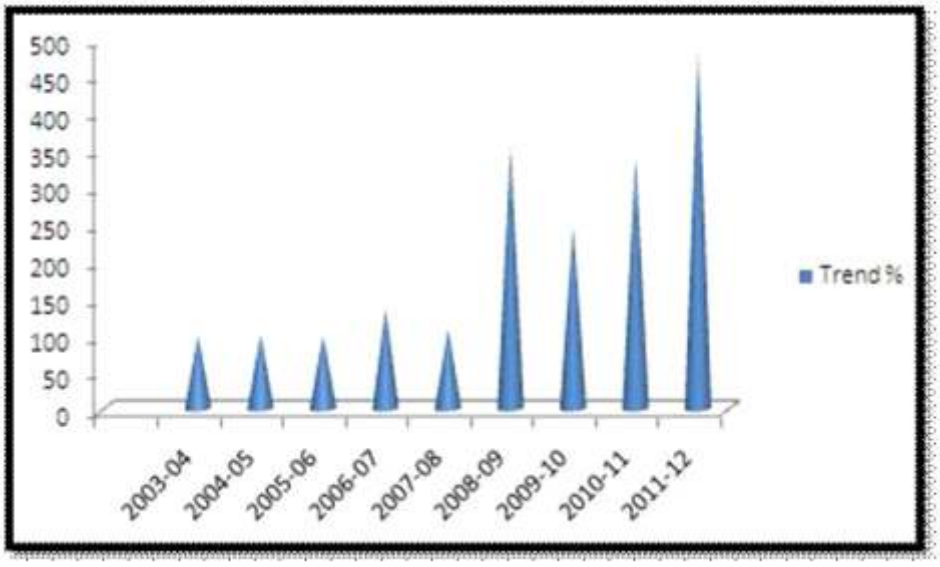

Chart 4: Turmeric Production in Karnataka

7.5. Turmeric Production in West Bengal

Year	Area (hectares)	Quantity in Tonnes	Trend %
2003-04	12620	24500	**100**
2004-05	12400	24480	**100**
2005-06	11844	25049	102
2006-07	12790	22030	90
2007-08	11730	21350	87
2008-09	15212	35372	144
2009-10	15464	36390	148
2010-11	15779	38300	156
2011-12	16029	38950	159

Table 5: Turmeric Production in West Bengal
Source: Indian Spices Board

In the above table V reveals that year 2003-04 the cultivated area of turmeric was 12,620 and also production of 24,500 tonnes. For the year 2011-12 the cultivated area was increased to 16,029 hectares and production also increased to 38,950 tonnes. The trend per cent also increased during the period.

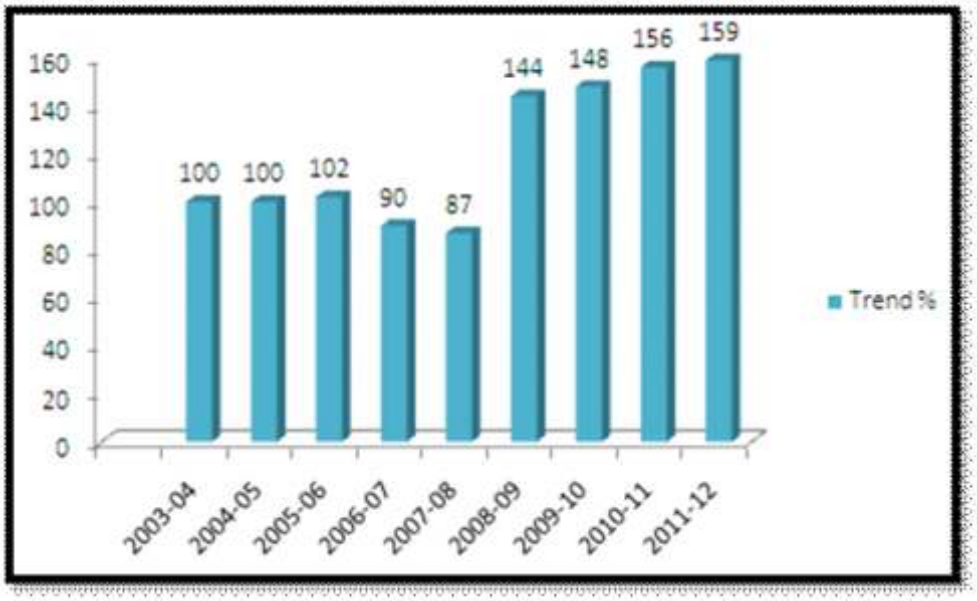

Chart 5: Turmeric Production in West Bengal

7.6. Turmeric Production in Maharashtra

Year	Area (hectares)	Quantity in Tonnes	Trend %
2003-04	6810	8530	**100**
2004-05	6830	8540	**100**
2005-06	6760	8427	99
2006-07	6770	8510	100
2007-08	6640	8220	97
2008-09	6799	8497	100
2009-10	6800	8600	101
2010-11	18876	6791	79
2011-12	14039	6666	78

Table 6: Turmeric Production in Maharashtra
Source: Indian Spices Board

In the above table VI reveals that year 2003-04 the cultivated area of turmeric was 6,810 and also production of 8,530 tonnes. For the year 2011-12 the cultivated area was increased to 14,039 hactares but production is decreased in 6,666 tonnes. The trend per cent also decreased during the period.

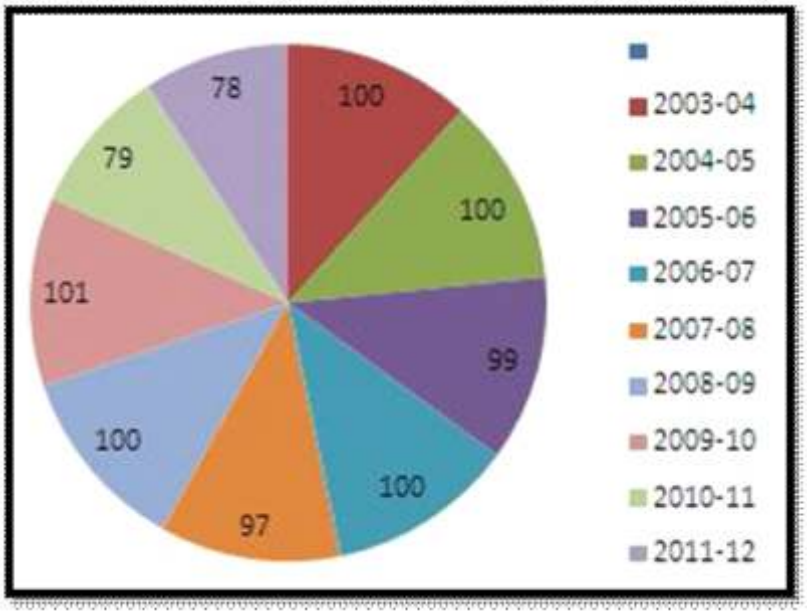

Chart 6: Turmeric Production in Maharashtra

7.7. Turmeric Production in Kerala

Year	Area (hectares)	Quantity in Tonnes	Trend %
2003-04	2770	5650	**100**
2004-05	2880	6240	**110**
2005-06	3384	8237	145
2006-07	3560	7900	139
2007-08	3140	6940	122
2008-09	2782	6364	112
2009-10	2438	6066	107
2010-11	2391	6216	110
2011-12	2970	7946	141

Table 7: Turmeric Production in Kerala
Source: Indian Spices Board

In the above table VII reveals that year 2003-04 the cultivated area of turmeric was 2,770 and also production of 5,650 tonnes. For the year 2011-12 the cultivated area was increased to 2,970 hactares and production also increased to 7,946 tonnes. The trend per cent also increased during the period.

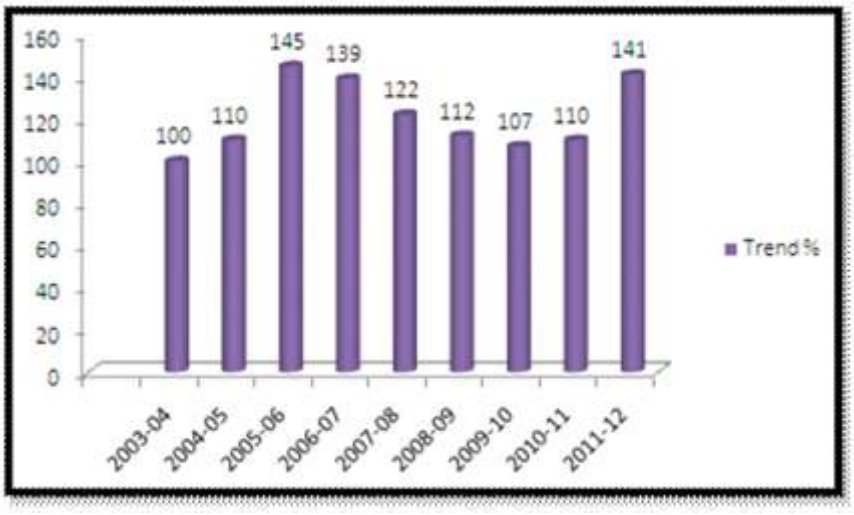

Chart 7: Turmeric Production in Kerala

8. Prospects of Turmeric Production in India

Next to Cotton and Sugarcane, turmeric is an important commercial crop grown in India. The analysis of secondary data related to area, quantity and value of turmeric production in India shows as encouraging trend, as the climatic conditions, fertility of the soil, rainfall and cultivation practices are highly favourable in the majority of states of India. The expansion of area under turmeric cultivation will

enrich the existing quantity of turmeric production in the country. Though price fluctuation may exist due to instability in the market, these can be eliminated by effective export promotional measures taken by the government. Promoting turmeric cultivation in the country will enhance the inflow of foreign exchange and improve the economic condition of the Indian farmer.

9. SUGGESTION

- The Spices Board has taken certain steps to encourage farming and processing of Turmeric but till much more initiative in this regard is needed.
- The Spices Spark will have to be established by the government in various turmeric producing states.
- While the cost of cultivation has been increasing steadily every year, there has not been a corresponding increase in the selling price. Hence the government should encourage farmers by fixing a remunerative price.
- The Spices Board should Provide Strong Research support for cultivation of turmeric in Various states.
- State wise demand of turmeric must be informed by the government to the farmers prior to cultivation
- The government can establish a separate Demand Estimation committee at state level. This well help to match the demand and supply of turmeric and thereby price fluctuation could be reduced to some extent.

10. CONCLUSION

Currently, the cultivation of turmeric has not been studied scientifically. A single state survey may provide much more information. Precision farming involves the use of most advanced technologies like GPS, GIS, remote sensing and VRT (Variable rate technologies). Such systems are designed to monitor, analyse and control plant production parameters with the aim to optimize expenses, reduce the ecological ill effects and increase yields. To fulfil such contrasting aims, the first prerequisite is to select the best suitable crop for an area or the best way to enhance soil quality specifically for turmeric cultivation. A land suitability analysis will best meet such a basic need.

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