



## MANGO PRODUCTION AND MARKETING IN KRISHNAGIRI DISTRICT OF TAMIL NADU

ANJU MC<sup>1</sup> and Dr. S. MANIKANDAN<sup>2</sup>

<sup>1</sup>*Ph.D Research Scholar, Department of Economics,, Erode Arts and Science College, Erode - 638009*

<sup>2</sup>*Assistant Professor, Department of Economics, Erode Arts and Science College, Erode - 638009*

### Abstract

The objectives of the study are to determine the demographic characteristics of farmers, study the production and marketing of mangoes, and identify the challenges faced by farmers marketing mangoes in the Krishnagiri district. The Krishnagiri district was specially selected for this study because of the many mango growers there. For this study, 30 mango growers were selected based on a convenient sampling method from respondents (farmers). A separate, well-structured interview schedule was drawn up based on the research objectives and pre-tested. The study was conducted in May–June 2019. The statistical methods used to analyze this study are percentage analysis, Garrett's ranking method, and cost-benefit ratio. The study concluded that added value at the farm level ensures the shelf life of fresh fruit and the quality of the processed product. Various alternative uses for the by-products of mango processing can be realized through processing into valuable products, which appear to be beneficial locally. Indian mango farmers must adopt scientific cultivation practices, proper post-harvest handling, grading, and packaging, which add value to the fruit and the final product. Traders and exporters must implement quality regulation, certification such as HACCP, and better marketing.

Keywords: Mango, CB Ratio, Cultivation, Garrett rating and Marketing

## **1. Introduction**

Mango, known as the king of fruits, is a popular fruit grown in over 60 countries worldwide, accounting for half of the tropical fruit produced and sold. Mangoes grow well in warm tropical climates with a long dry season (more than three months) and adequate rainfall. Originally from India and around for over 5,000 years, mangoes come in many shapes, sizes, and colors with a wide variety of flavors, aromas, and tastes. They are an excellent source of vitamins A, C, and fiber, providing up to 40 percent of your daily fiber needs, which helps fight heart disease, cancer, and high cholesterol. This juicy fruit is also a storehouse of potassium, beta-carotene, and antioxidants. Mangoes primarily grow in tropical and subtropical districts of India up to 1500 meters above sea level and grow best at 27°C. There are about 1,000 species in India; however, only a few varieties are cultivated commercially across India. The major mango-producing states in India are Andhra Pradesh, Uttar Pradesh, Karnataka, Bihar, and Tamil Nadu. Exporters of these mangoes include Arab countries, Japan, Spain, Bangladesh, Nepal, and Singapore, among others. In recent years, Tamil Nadu has accounted for 6-7 percent of India's total mango production. The main mango-growing districts in Tamil Nadu are Krishnagiri, Salem, Dindigul, Theni, and

Dharmapuri. The important commercial varieties in Tamil Nadu are Alphonso, Thodapuri, Panganapalli, Neelam, and Sentura. Bangladesh, Arab countries, and Kuwait are major importers of fresh mangoes from Tamil Nadu. Tamil Nadu can also export mango pulp to Arabia, the Netherlands, and England.

## **2. Literature review**

Kumar (2019) conducted a study on the challenges and opportunities of planting high-density mangoes. Drip irrigation proved to be beneficial in mitigating moisture evaporation and enhancing nutrient content. The study revealed that adopting high-density crops leads to better adherence to appropriate strategies, which in turn increases productivity. The study concluded that planning at high density would not only reduce pests and diseases but also increase yields. Another study by Dibaba et al. (2019) analyzed the challenges and opportunities of mango production and marketing. The study reported that small farm owners face difficulties in accessing the market due to their limited production, which corresponds to fixed costs. Therefore, small farmers need marketing, financial, and material assistance to help them produce more. The study concluded that implementing appropriate measures would safeguard farmers. Yadav & Rao

(2019) investigated the challenges and perspectives of mango marketing in India. The study demonstrated that organizing education and training programs in mango villages and areas can prevent diseases. The study concluded that farmers should create their own plans for mango cultivation to address these challenges.

**3. Objectives**

The study aims to investigate the demographic features of farmers, the production and marketing of mangoes, and the challenges encountered by farmers when marketing mangoes in Krishnagiri district.

**4. Methodology**

The Krishnagiri district, with its large number of mango growers, was the

focus of this particular study. The study selected 30 mango growers through a convenient sampling method based on responses from farmers. A well-structured interview schedule was created and pre-tested to match the research objectives. The study was conducted in May and June of 2023. The statistical methods used to analyze the data included percentage analysis, Garrett's ranking method, and cost-benefit ratio.

**5. Results and discussion**

**5.1. Demographic characteristics**

The demographic characteristics of selected farmers include age, education, type of farmer, and farming experience. Demographic data are presented in Table 1.

**Table: 1 Demographic characteristic**

Specifications	Number of respondents	
	N	%
<b>Age</b>		
<40	7	23.33
41-50	15	50.00
> 50	8	26.67
illiterate	5	16.67
<b>Qualification education</b>		
SSLC	7	23.33
HSC	8	26.67
For graduates	6	20.00
Postgraduate students	4	13.33
<b>Annual income</b>		
<1.00.000	14	46.67
200,001-300,000	12	40.00
> 3 lakhs	4	13.33
Marginal (<2.5 acres)	6	20.00

<b>Farmer type (land plots)</b>		
Small (2.6-5.0 acres)	12	40.00
Medium (5.0-7.5 acres)	8	26.67
Large (> 7.5 acres)	4	13.33
<b>Mango cultivation experience</b>		
<5 years	14	46.67
> 5 years	16	53.33
<b>Total amount</b>	<b>30</b>	<b>100.00</b>

Source: Estimated data

The demographic characteristics of the sample of farmers include age, education, type of farmer, and agricultural experience discussed. It can be concluded that most of the mango growers were 41–50 years of age, and they had very good exposure to growing mango and better experience. Basically, all farmers were educated before, and it was easy to get information through the newspaper and

other means. Most of the farmers had an annual income below 1 lakh and then 1-3 lakhs. Most of the farmers were small and medium-sized farmers.

**5.2. Growing cost**

The cost of growing (Alphonso and Thothapuri) to produce better quality mangoes was shown in Table 2.

**Table: 2 Cost of growing to improve the quality of mango (Rs / ac)**

Particulars	Alphonso		Thothapuri	
	No / Quantity	amount (in rupees)	No / Quantity	amount (in rupees)
Land preparation (plowing)	60 trees/ac	3690.0	60 trees/ac	3072.0
Labor cost for the entire operation	Rs.73.6/tree	4489.5	Rs.74.8/tree	4485.1
FYM	Rs. 47.5/tree	2952.0	Rs. 38.5/tree	2273.3
Pesticide use	Rs.146.5/tree	8979.0	Rs.96.4/tree	5529.6
Spray technology cost	Rs.50.1/tree	3075.0	Rs.50.4/tree	2560.0
Chemical fertilizer	Rs. 96.7/tree	5965.5	Rs. 86.8/tree	5283.8
Watering costs	Rs.98.65/tree	6150.0	Rs.81.5/tree	4915.2
Collection of Fees	Rs.46.75/tree	3075.0	Rs.50.1/tree	3072.0
<b>Total production cost</b>		38376.0		31191.0
Farmer selling price for export quality (1 ton)	Rs.49.5/Kg	51250.0	Rs.23.4/Kg	58880.0
Best quality in the domestic market (1 t)	Rs.29.5/Kg	28700.0	Rs.12.2/kg	15974.4
<b>Farmer selling price</b>		93070.0		74854.4
<b>Farmers' net profit</b>		54735.0		43663.4
<b>Cost-benefit ratio</b>		<b>2.4</b>		<b>2.4</b>

Average yield	2.7 tonnes		3.7 tonnes	
---------------	------------	--	------------	--

Source: Estimated data

The total production value of Alfonso and Totapuri (Rs 38,376 per acre and Rs 3,311 per acre) consists of land preparation, agricultural manure, chemical fertilizers, labor costs, processing costs, etc. The farmer sold Alfonso's products for export in the amount of 49.5 rupees per kg and (Alfonso and Totapuri) for the domestic market at 29.5 rupees per kg and 23.4 rupees per kg. The total selling price of both was Rs 93,070 and Rs 74,854.4. The respondents received a net profit of Rs

54,735 for an alfonso and Rs 436,363 for a totapuri each mango season. The bookmaker coefficient was 2.4. The average yield was 2.7 metric tons for alfonso and 3.7 metric tons for totapuri.

**5.3. The challenge facing farmers**

Garrett's rank was used to analyze the problems faced by respondents in mango production and marketing, and is analyzed in Table 3.

**Table: 3 Problem faced by farmers**

Problems	Garrett Overall Rating	Average score	Rank
treatment	1835	61.17	II
Low price	2305	76.83	I am
Lack of market identification	1067	35.57	IV
Risk financing	1087	36.23	IN
packaging	1693	56.43	III

From Table 3 above, it can be explained that most farmers received a low price for their products, which was accompanied by difficulties in processing mangoes, packaging problems, difficulties in identifying the market, and difficulties in obtaining financing for working capital management for mango production. Market price information and market identification will be provided to farmers through the media in order to get a higher

price for their products. The training will be conducted using NHB for handling and packaging.

**6. Conclusion**

Adding value to a product creates additional value for the final product and makes it desirable for consumers. Each stage of mango ripening, used in processing into different products, and processed value-added products have

market opportunities in both local and export markets. Farm-level added value ensures fresh fruit shelf life and processed product quality. Various alternative uses for the by-products of mango processing can be realized through processing into valuable products, which appear to be beneficial locally. Indian mango farmers must adopt scientific cultivation practices, proper post-harvest handling, grading, and packaging, which add value to the fruit and the final product. Quality regulation, certification such as HACCP, and better marketing must be implemented by traders and exporters.

## 7. Reference

1. Kumar, N. (2019). High density planting in mango – prospects and

problems. *Advanced Agricultural Research & Technology Journal*, 3(1), 47-53

2. Dibaba, R., Hagos, A., Bekele, A. & Alemu, D. (2019). Challenges and opportunities of mango production and marketing in Assosa Zone of Benishangul Gumuz Region: Evidence from Ethiopia. *Journal of Marketing and Consumer Research*, 53, 1-13.
3. Yadav, S.K. & Rao, T.U.M. (2019). Problems and prospects of mango marketing in India (Related to Krishna district). *International Journal of Recent Technology and Engineering*, 8(1), 923-927.