

# A Study on Flower Cultivation and Marketing Behavior in Tamil Nadu with Special Reference to Tiruchirappalli District

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## Abstract

This study is designed on considering the contemporary trends of flowers cultivation and marketing in Tamil Nadu with the view of different flowers cultivating farmers and retail floral traders. Tamil Nadu stands second in the area under flower cultivation and production of flowers in India. Flower cultivation is very popular in the state. Therefore, the study was undertaken to examine the economics of flowers production and to identify the constraints to jasmine production and marketing using primary data collected from the Tiruchirappalli district of Tamil Nadu in 2019-20. The cultivation of major flowers generated impressive returns to the farmers and good employment opportunities for farm family as well as agricultural labourers especially for female workers. The non-availability of labour and credit, adverse climate, high establishment cost, incidence of pest and disease were major constraints faced by the farmers in jasmine cultivation. Further, high price fluctuation, transportation cost and commission charge, malpractice by the traders and trader's collusion were the major constraints in the marketing of important flowers. The results reveal that the flower traders haven't tailored these marketing concerns yet. Besides, it gives a rational perceptive to Tamil Nadu traders of utilizing this floral marketing theory to bloom this industry by managing different complexities.

**Keywords:** flower cultivation, marketing costs, channels, price spread.

## Introduction

Agricultural marketing covers the services involved in moving an agricultural product from the farm to the consumer. Numerous interconnected activities are involved in doing this, such as planning production, growing and harvesting, grading, packing, transport, storage, agro- and food processing, distribution advertising and sale. Some definitions would even include "the acts of buying supplies, renting equipment, (and) paying labor", arguing that marketing is everything a business does. Such activities cannot take place without the exchange of information and are often heavily dependent on the availability of suitable finance. Marketing systems are dynamic; they are competitive and involve continuous change and improvement. Businesses that have lower costs, are more efficient, and can deliver quality products, are those that prosper. Those that have high costs, fail to adapt to changes in market demand and provide poorer quality is often forced out of business. Marketing has to be

customer-oriented and has to provide the farmer, transporter, trader, processor, etc. with a profit. This requires those involved in marketing chains to understand buyer requirements, both in terms of product and business conditions.

Floricultural was practiced only on small farms but now a few large ones have been set up. The estimated area under flowers is 6,50,000 hectares, the major states being Karnataka, Tamil Nadu, West Bengal, Andhra Pradesh and Maharashtra. It must, however, be mentioned that in view of small size of flower farms often the correct area is not reported. Traditional flowers, such as marigold, jasmine, chrysanthemum, China aster, cross and tuberose, usually marketed loose, occupy nearly two thirds of the area, the rest being under contemporary flowers such as rose gladiolus, carnation, tuberose and orchids used in bouquets and arrangements. Production is estimated to be nearly three lakh tonnes of flower and over 500 million cut flowers-rose chrysanthemum and tuberose are used in loose form and also with stem. In Tamil Nadu, flower production and marketing acquired importance because of the different uses of flowers. Flower business today is vital.

Crossandra, jasmine and rose are the important flower crops in Andhra Pradesh. Most of jasmine and crossandra were being grown in states of Tamil Nadu, Andhra Pradesh and Karnataka. The heavy concentration of flower production in these states is due to prevalence of markets for traditional flowers. Total area under flower crops in India is about 35,000 hectares. Marketing plays an important role in determining the levels of income to the producer for his produce. Marketing is the final stage where the farmer converts all his efforts and investment into cash. In modern times farmers have become highly cost conscious and their financial position will depend not only on returns they receive from a particular enterprise but, also the place where they are selling their produce for getting a remunerative price. Hence, it is important to analyze the marketing practices that are being followed and to identify the market intermediaries and channels of marketing. The specific objective is to study the present marketing pattern and price spreads of crossandra, jasmine and rose etc.

### **Statement of the problem**

Flower producers cannot sell flowers directly to consumers as it involves higher risk, labour, skill and processing. Flowers are made into consumable form by retailers, street vendors, stall holders and so on. Growers cannot afford or lack such skill, time and organisation to undertake these activities. This aspect makes involvement of intermediaries inevitable. Moreover flower cultivation requires good management skill. Flowers cannot be cultivated over larger areas as labour, management and marketing are problems. These unique features allow only wealthy farmers to undertake the enterprise in small areas along with other crops. Thus production and marketing of flowers are spear headed with different types of problems like a location specific, imperfect market which warrants a systematic integrated study of the production and marketing of flowers. The present study is directed towards this goal. This study is designed to probe production and marketing of flowers in Tamil Nadu with special reference to Tiruchirappalli district and to elicit the possibilities and potentialities for its improvement.

### **Objectives of the Study**

In Tamil Nadu production and marketing of flowers occupies a predominant position. The general objective of the study is highlighting the various aspects to assess production and marketing of selected flowers. The specific objectives of the present study are as given below:

1. To examine the trend in area of flower cultivation and marketing practices in Tamil Nadu.

2. To estimate the cost of cultivation and return of flowers.
3. To evaluate the marketing efficiency and identify the marketing channels of flowers
1. and the specific constraints in the study area.
4. To give suitable suggestions to improve the production of flowers based on the findings of the study.

### **Period of the Study**

In order to achieve the objectives of the study both the primary and secondary data have been used. Primary data have been collected from flowers growers during the period from July 2018 to September 2018. Required secondary data have been collected from season and crop report of Tamil Nadu.

### **Methodology**

Trichirappalli district was selected for the study as it ranks first place under flower cultivation in Cauvery delta region of Tamilnadu. For the research Andhanallur Block was selected purposively have maximum area under flower crops in many villages of Trichy district. From this block six major villages were randomly selected to conducting field work for this paper preparation. From each village ten farmers were selected with highest area under flower cultivation. A sample of 60 farmers was selected for rose, jasmine and crossandra and 30 flower market sellers totally 90 respondents were selected. The samples were selected as per the probability proportion to the area under each selected flower crop in the selected villages for the study. The data pertaining to the selected flower cultivating farmers obtained through survey method for the agricultural year 2017-2018 with the help of pretested and well-structured questionnaires. For flower marketing information the very famous Srirangam and Gandhi market area were selected and the collection of information pertaining to marketing aspects, 10 wholesalers 10 retailers and 10 flower venders involved in flower marketing at Trichirappalli were selected at random. The marketing channel selected for the study is Producer → Wholesaler → Retailer → Consumer.

### **Wholesalers**

These agencies purchase crossandra, rose and jasmine flowers from the farmers directly and again sell the produce to the retailers.

### **Retailers**

These agencies purchase flowers from the wholesalers directly and again sell the produce to the ultimate consumer.

### **Results and Discussion**

The channel selected for the study indicates that the farmers sell their produce to the wholesalers and wholesalers in turn sell the produce to retailers. The retailers sell their produce to consumers. The detailed analysis of price spread, marketing costs and margins were presented in Table no:1. Price spread is the difference between the price paid by the consumer and that received by the producer of a commodity. Sale of crossandra, jasmine and rose were done through different levels of intermediaries before it reaches the consumer. The price spread, marketing costs and margins were calculated for one basket of crossandra, jasmine and rose flowers etc.

### **Jasmine and other flowers Cultivation**

Jasmine, *Jasminum auriculatum* and *Jasminum Sambac* of the flower is one of the most important flower in the domestic flower industry, belongs to the family oleaceae in more than 10,000 hectare in Tamil Nadu. The investigator could see in the course of his study in Trichirappalli that flowers could be cultivated a wide range of flowers. It fetches value not only in India, but also in foreign markets. It earns million of dollars as exchange to our country. Its fragrance, aromatic scent is liked by all the people especially the Tamil women who would love to wear them on their hair. Its colour is pure white and attractive. The Jasmine flowers are also offered to Gods. It is used for making wreathes, bouquets and garlands. It is impossible to think of marriages without the presence of jasmine garlands and wreathes. As it has long lasting fragrance its scents are used in cosmetics. These flowers are also used in some industries for the production of perfumes, soaps and Agarthis. There are more than 200 varieties of Jasmine, Parijadam, Pavalamalligai, olivamaram also belong to Jasmine variety of flowers, the super quality varieties are Coimbatore, Mullai, Parimullai, Iruvachi and Ramanathapuram Gundu Malligai. Jasmine flowers in abundance during Tamil months Thai, Masi, Pankuni, Chithirai and less during Ani, Aadi, Avani and rainy season when price will be high. It is a semi creeper and bears fragrant flowers throughout the year but from June to September it produces more flowers. It can be grown on a wide range of soils. Well-drained sandy loams and red loams with a soil PH range 6.5-7.5 are ideal for its cultivation. It is a sun loving crop and prefers warm humid climate for its successful growth. The ideal time of planting is from June to August. Propagation of Jasmine is by shoot cuttings in mist chamber. The field is ploughed 3 to 4 times and brings it to a fine tilth. Dig pits of 30 cm cube with the spacing of 1.5m x 1.5m after the pits are ready fill them with 20 kg FYM along with equal quantity of top soil. Transplant rooted cuttings in the centre of pits and irrigate. Earth warm manure and groundnut cake and E.M are used as manure and D.A.P, Pottash are used as fertilizers. Irrigation is given at weekly intervals. Pruning should be done during December to get high yield and to keep the bushes to manageable size. The plant is likely to suffer from pest damages during the growth period by the bud worms, bud flies and root grubs. The knowledge of pest identification and its management needs special attention in order to have a best quality in the market. Harvesting should be done during morning hours (5 to 8 am). It should be immediately transported to market.

As it is evident from the above table that the large scale farmers incur a total cost of Rs.155075 to cultivate one hectare of land with Jasmine (Malligai) plants. Among all the different costs estimated the harvesting cost, irrigation and the manuring and fertilizing cost appear to be very prominent. The harvesting cost form 60.95 per cent of the total cost. But the irrigation and manuring and fertilizing cost form 12.07 per cent and 10.78 per cent respectively. The medium size farmers incur a relatively lower scales of expenditure. As it is clear from the above table it works out Rs.154351. Here the harvesting costs, irrigation cost and the manuring cost constitute in terms of percentage, harvesting forms 61.23 of the total cost while irrigation and manuring and fertilizing cost form 12.12 and 10.78 respectively. In the case of the small farmers, the costs incurred are a little lower while compared to large and medium farmers. Interestingly enough it is found to be Rs.153609 per hectare. A component wise division of the total cost shows that the harvesting cost form 61.36 per cent while the irrigation and manuring and fertilizing cost form around 12.94 per cent and 10.76 per cent respectively.

### **Rose**

Rose is one of the most beautiful flowers which is produced in plenty in Trichirappalli . It is produced in

places all over the country. People young and old hold it so dear to their heads that unlike other kinds of flower is known as for its immense medicinal value and for its overwhelming uses for the production of the most sought after perfumes. In Trichy it is used mostly for the production of garlands, and bouquets. Its use as a decoration material is on the rise in recent years. No wonder it is widely known as the queen of flowers. Rose is a typical cut flower is grown mainly in the temperate zone. In Sanskrit literature it is referred to 'Taruni Pushpa' 'Atimanjula' and 'Semantika'. The Moguls were known to be ardent admirers of the flower, and the Empress Nur Jehan is credited with the discovery of attar of roses. Floriculturists usually bring it under five heads. They are Hybrid Teas, Floribundas, Polyanthes, Miniatures and Climbers and Ramblers. However, according to Botanists there exist 250 distinct species of Roses. At Horticultural Research station, of Yercaud of Tamil Nadu about 435 rose collections have been collected and maintained. This includes three hundred and sixty three hybrid tea roses, fifty seven floribunda roses, twelve climbing roses and three miniature roses. The flowers are bright crimson-red large, full, well formed flowers with reflexing petals. Very free flowering and vigorous, with long stems, one of the best reds for cut flowers but having little fragrance. It is desirable to allow one or two of the outer petals to begin to unfurl before cutting. Old favorite varieties of roses are produced and sold as loose flowers. These are used for offerings at places of worship, for the extraction of essential oil and also used in garlands.

The present day garden roses have been derived from crossing of different wild rose species of Europe and china. Rose plants can come up well anywhere in Tiruchirappalli. However, well drained sandy loam or loam is quite suitable. As it is well known Rose plants should be planted in a protected area with open space free from shade and roots of trees. The propagation of the plant is usually done by cutting layering and budding. The best season for planting roses is just before the rainy season. When the weather is too hot, the plants may be shaded for 8 to 10 days. Preparation of any garden for Rose cultivation is a very burdensome while farmers usually dig out small pits of specified dimensions at least one week in advance and allowed to weather. They should be filled with well-rotted FYM at the bottom and good garden soil at the top. After the plants establish and begin to grow well, manure may be applied into the soil and the surface mulched with decomposed cattle manure. For Edward and red roses FYM 20 kg per plant per year may be given in two doses once in October soon after pruning and second dose during July or August. Pruning is done during the second fortnight of planting. All the weak, diseased crises crossing and unproductive shoots are to be removed. Proper plant protection is must for rose plants to get quality flower. Normally irrigation can be given once in 2 days till the plants establish. Thereafter once in a week is sufficient depends upon the type of the soil. Rose flowers are collected early in the morning. They are frisked away to the nearby markets for immediate sale. In places devoid of refrigeration facilities, rose flowers withered and become totally useless in a few hours after their collection from plants.

**Table.no: 1: - Jasmine Cost of Cultivation (1 acre)**

Sl. No.	Particulars	Amount Rs.
	<b>A. Material cost</b>	
I	Planting material	3905
ii	Farm Yard Manure	5325

iii	Fertilizers	7349
iv	Fuel for irrigation	2520
v	Plant Protection chemicals	2400
vi	Fencing (live hedge)	3000
	<b>B. Operation and Labour (excl.labour on harvesting)</b>	
I	Land Preparation including formation of irrigation channels	2400
ii	Digging of pits	1600
iii	Filling back of pits and planting	1200
iv	Application of manures and fertilizers	800
v	Irrigation	800
vi	Application of plant protection chemicals	800
vii	Intercultural operations	2400
viii	Fencing (live hedge)	1600
	<b>C. Plucking charges</b>	6000
	<b>D. Misc .Expenes</b>	901
	<b>Total Cost</b>	<b>Rs. 43000</b>

Source: Compiled from Primary data.

### Area of the Study

There are fourteen blocks in Tiruchirappalli district . An enquiry with the office of the Assistant director of the horticulture Tiruchirappalli . There are around 2310 growers engaged in jasmine production in district . Andanallur block cover in 215.885 area, Mannachanallur blocks cover in 101.6 area (2018-2019), Jasmine production is highly . Jasmine is one of the important flower crops in Tamil Nadu and is mainly cultivated in Erode, Dindigul, Kanyakumari, Ramanathapuram, Coimbatore, Madurai, Salem, Tirunelveli, Virudhunagar and Trichy districts of the state. Following six value chains were identified in the study area in marketing of jasmine: Producer-CommissionAgent-Retailer-Consumer:Producer-CommissionAgent-Wholesaler-Retailer - Consumer/ Producer Wholesaler Retailer Consumer / Producer-Commission Agent -Processor: Producer – Retailer- Consumer: Producer- Exporter Retailer-Consumer.

The channels II and III were the important channels of jasmine flower trade in the study area, since major share (more than 60 %) of jasmine flowers was marketed through these channels.

### Flowers Area Under Cultivation in Tiruchirappalli District During 2019 – 2020.

S.No	Crop Details Flowers	2019 - 2020 (Area in Ha)
1.	Rose	28.960
2.	Jasmine	567.465
3.	Mullai	21.360
4.	Jadhi Malli	15.960
5.	Crossandra	16.245
6.	Crysanthemum	2.700

7.	Chevanthi	53.030
8.	Arali	14.185
9.	Kozhi Kondai	30.380
10.	Sendu Malli	
11.	Mary Gold	1.970
12.	Anthoorium	1.000
13.	Champangi	89.285
14.	Kakada	1.080
15.	Vaadaa Malli	0.500
17.	Kaanthal	-
18.	Pichi	85.530
19.	Kethi	6.800
26.	Deriya	0.565
<b>Total Area</b>		<b>937.015</b>

Source : District statistics office Tiruchirappalli.

### Marketing Cost by the Producers

The producer was getting Rs.150, Rs. 225 and Rs. 80 for one basket of crossandra, jasmine and rose flowers respectively. Out of total consumer's price of Rs. 245, Rs. 510 and Rs. 175. Therefore, producer's share in consumer's rupee was found to be 93.38, 78.06 and 80 per cent in crossandra, jasmine and rose flowers. Wholesaler's margin in terms of percentage was around to be highest i.e. 20 in rose followed by jasmine with 25.5 and 21.65 in crossandra. In marketing of all three flowers retailer's margins were found to be lower than wholesaler's margins. Retailers margin was found to be 23.50 per cent in case of rose, 32.09 per cent in jasmine and 12.3 per cent in crossandra. The total consumer's price i.e., market price for one basket of crossandra, jasmine and rose flowers was found to be Rs. 245.00, Rs. 510.00 and Rs. 250.00, respectively.

### Marketing Cost met by Wholesaler

The wholesaler incurred Rs. 30, Rs. 35 and Rs. 25 per basket of crossandra, jasmine and rose flowers as marketing costs. In case of crossandra spoilage losses were found to be higher Rs. 15 followed by transportation cost Rs. 10. In jasmine also spoilage losses accounted to Rs. 15 followed by transportation cost Rs. 10 per basket. However, in case of rose flowers transportation cost contributed 85 per cent to the total marketing cost met by wholesaler.

### Marketing Costs met by Retailer

The marketing costs incurred by retailers per basket of crossandra, jasmine and rose flowers were found to be Rs. 40 , Rs. 45 and Rs. 25, respectively. In case of crossandra marketing first place among costs incurred by retailer was taken by sorting costs 59.14 per cent followed by spoilage losses with 64.78 per cent. But in jasmine the major entity of retailer's marketing cost was spoilage losses with 8 per cent. In case of rose transportation cost contributed 80.00 per cent to the total retailer's marketing costs followed by spoilage losses with 35 per cent.

### **Agricultural Marketing in Tamilnadu**

There are several challenges involved in marketing of agricultural produce. There is limited access to the market information, literacy level among the farmers is low, multiple channels of distribution that eats away the pockets of both farmers and consumers. The government funding of farmers is still at nascent stage and most of the small farmers still depend on the local moneylenders who are leeches and charge high rate of interest. There are too many vultures that eat away the benefits that the farmers are supposed to get. Although we say that technology have improved but it has not gone to the rural levels as it is confined to urban areas alone. There are several loopholes in the present legislation and there is no organized and regulated marketing system for marketing the agricultural produce. The farmers have to face so many hardships and have to overcome several hurdles to get fair and just price for their sweat.

### **Marketing of Flowers at Srirangam**

The Srirangam flower market has been in existence for over a hundred years, and the cycle will go on, drawing devotees and observers like us. Daily flower market in Srirangam that was inaugurated after a two-year delay since its construction was mainly to de-congest the overcrowded Sattara street in Srirangam where various flower traders and allied labourers, particularly garland makers, apart from wholesale units are located. The daily market constructed by Tiruchirapalli City Corporation is not far away from the Sattara street. The traders on the Sattara street include a mix of various dealers and they have been in the trade for several decades. Commission agents run wholesale units. They procure flowers from growers directly and sell it to retail vendors. Some of them own their houses on the Sattara street and utilise the front portion for their business. The street also accounts for allied trades – small-time merchants selling 'thulasi', dried banana fibre bundles, and garland labourers.

Over the years, the strength of traders and allied workers got increased on the narrow street resulting in encroachments by pavement vendors and garland makers. The problem is acute in the morning when a large number of flower cultivators reach the street to sell their produce to commission agents. The Sattara street turned out to be a seat of congestion forcing the need for construction of a daily market by the corporation. The daily flower market, built at an estimate of about Rs. 30 lakh, remained unutilised for about two years till a section of flower merchants, particularly garland makers, were shifted there. "The Sattara street has earned a reputation in flower trade, but the daily market, in its initial phase, is yet to attract buyers. The traders at the daily market make garlands only to throw them away as there are no takers here. The traders who had occupied the shops at the market, after depositing some money with the corporation. The daily rent for their shop measuring 48 square feet is Rs. 31. They actually unable to remit the daily rent and have given up the trade altogether for the past few weeks. Of the 68 shops, only a dozen traders have been operating at the market, that too without any prospects. At the Sattara street labourers were used to engage to make garlands. "The wage per garland varies between Rs. 40 and Rs. 45 a piece.

### **Conclusion**

The producer's share in consumer's rupee was found to be highest in crossandra (63.38 per cent) followed by jasmine (58.06 per cent) and in Rose (50.00 per cent). Wholesales are realising higher margin in case of marketing of rose flowers 20.00 per cent followed by jasmine with 19.51 per cent and then finally in crossandra with 11.61 per cent. Retailers were also getting more profits in marketing of



rose (13.50 per cent) followed by jasmine (12.09 per cent) and crossandra (7.39 per cent). In marketing of all three flower crops wholesalers were found to be realising more market margins than retailers.

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