

PRICE BEHAVIOUR OF JASMINE FLOWER: A STUDY IN ERODE DISTRICT OF TAMIL NADU

Dr. A. Selvaraj,
Associate Professor,
PG and Research Department of Commerce,
Gobi arts and science college,
Gobichettipalayam, Erode district.

ABSTRACT

Since jasmine is a perishable item, it is required to be marketed immediately after its plucking; else its quality shall deteriorate quickly. It is for this reason that the price of jasmine tends to show greater variations than variation in any other commodity. There are various factors such as quality, demand and supply, seasonal and climatic conditions of the region, efficiency of the channel, availability of transport facilities, number of middlemen and their activities and distance between farm and market.

It is found that main deciding factor of price of jasmine is supply. On the basis of information gathered from the sample farmers, it is identified that months between March and June are considered as peak periods (high yield season) and months between October and February are considered as lean period (low yield season). During the months of July, August and September, there will be no yield or even if at all, there will be a very meagre yield.

Keywords : Jasmine, Peak Periods, Lean Period, Price Movements, Seasonal Variation

INTRODUCTION

Price is a matter of vital importance to the seller and the buyer as well as the traders in a market place. In a competitive market economy, price is determined by free play of supply and demand. If competitive and remunerative prices are paid to the farmer, it will provide an adequate incentive for further production. Price determination is a complex dimensions on account of scattered demand of the commodity over the country and the multifarious factors that effect it. Pricing is undoubtedly one of the most important decision areas of marketing.

The prices of goods produced in the agricultural sector have tendency to display a wide inter and intra year fluctuations. These price fluctuations have a bearing on uncertainty of the relative profitability and this affects the level of inputs used (and consequently the productivity and incomes) in the agricultural sector. Normally, price is fixed by considering the cost of production. But in agriculture, the situation is little different. Mainly demand and supply are considered while fixing the pricing for agricultural products. Unlike other agricultural commodities, price formulation is a very complicated process for flowers. Besides supply and demand, quality also greatly influences the prices.

Agricultural commodities possess more or less uniform price behaviour due to seasonality in nature. The price behaviour of the agricultural commodities is based on the traditional theory of supply and demand conditions. Due to seasonal behaviour of agriculture, it is viewed that during peak arrivals, the prices would be low and vice versa. However the demand is spread throughout the year. In these circumstances, the validity of the determination of price of an agricultural commodity based on aggregate demand and supply conditions at a given time. In fact, results in a hazardous situation leading to an imperfect pricing system, in which either final consumer or final producer or both would be adversely affected.

Agricultural prices give signal to both producers and consumers regarding the level of production and consumption. Changes in the relative prices of the various agricultural commodities affect the allocation of resources among agricultural commodities by the producers. Agricultural price movements have been a matter of serious concern for policy makers in our country as the behaviour of agricultural price is strong in affecting adversely the steady economic development. Among other things, price plays a strategic role in influencing the cultivation of jasmine. Indeed, the price analysis of jasmine assumes greater significance not only to the policy makers in formulating developmental plans but to both producers and consumers as well. Further, an understanding of prices will be of immense help to the growers in forecasting.

Since jasmine is a perishable item, it is required to be marketed immediately after its plucking; else its quality shall deteriorate quickly. It is for this reason that the price of jasmine tends to show greater variations than variation in any other commodity. There are various factors such as quality, demand and supply, seasonal and climatic conditions of the region, efficiency of the channel, availability of transport facilities, number of middlemen and their activities and distance between farm and market.

It is found that main deciding factor of price of jasmine is supply. On the basis of information gathered from the sample farmers, it is identified that months between March and June are considered as peak periods (high yield season) and months between October and February are considered as lean period (low yield season). During the months of July, August and September, there will be no yield or even if at all, there will be a very meagre yield.

The required data relating to jasmine price are collected from the copies of bills provided by the commission agents of Coimbatore and Mysore to the jasmine growers. Jasmine price is highly fluctuating. Jasmine fetches price between Rs.200 and Rs.250 per kilogram during the wedding and lean season. During heavy supply periods i.e., in peak season jasmine, are sold at a meagre rate of Rs.10 to Rs.15 per kilogram. Generally, the jasmine price is varying on hourly basis. For analysis purpose, daily average rate is added and that is further averaged for monthly basis.

Both Coimbatore and Mysore markets are important ones for sample farmers. Hence, these two markets are considered for price analysis. In Mettupalayam flower market, prices are fixed purely based on consultation with Coimbatore flower market. Hence, there is no difference between Coimbatore and Mettupalayam flower market price. This paper mainly focuses on jasmine price movements in Coimbatore and Mysore flower markets based on the secondary data. For analysis the price movements, statistical tools like mean, range, standard deviation and co-efficient of variation are used. Indeed, prices of jasmine for the period from 2005 to 2009.

RESEARCH DESIGN AND METHODOLOGY

This study is an empirical research based on survey method. The present study is confined to Erode district of Tamil Nadu. Erode district is selected for the present study, keeping in view that this district ranks second in area of flower cultivation with an area of 2,337 hectare. Of which, jasmine alone is cultivated in 590 hectare. Out of 20 blocks in the district (As per the records of District Statistical Office), three blocks namely, Sathyamangalam, (393 hectare), Bhavanisagar (113 hectare) and Thookanaicken Palayam [T.N.Palayam (45 hectare)] are purposively chosen at the first stage as these three blocks accounted for higher proportion (93.39%) of the total area of the jasmine cultivation of the district.

SELECTION OF REVENUE VILLAGES

In the selected three blocks, there are 76 revenue villages (Sathyamangalam block 29, Bhavanisagar block 26 and T.N.Palayam block 21). Jasmine is cultivated only in 55 revenue villages (Sathyamangalam 29, Bhavanisagar 23 and T.N.Palayam 3). In order to select a representative sample, a list of villages where atleast five hectare of land are used for jasmine cultivation is obtained from the records of Agriculture Department of the respective blocks. As per this list, there are 30 revenue villages and all these villages are considered for the present study (Sathyamangalam 15, Bhavanisagar 12 and T.N.Palayam 3).

SELECTION OF JASMINE GROWERS

To select the jasmine growers, a list of farmers who cultivate the jasmine in atleast ¼ acre of land with minimum 5 years of experience in jasmine cultivation during the year 2007 is prepared with the help of Block Development Officials and Village Administrative Officers. As per this list, it is found that there are 867 jasmine growers in the selected 30 revenue villages.

For the purpose of selection of sample farmers, it is decided to select 50% of the farmers from each selected 30 revenue villages by using simple random sampling technique which accounted for 434 jasmine growers and this is considered adequate and representative.

The data are collected by survey method. The farmers are interviewed personally with the help of well designed and pre-tested schedule to elicit accurate and reliable data with minimum errors. Owing to

non-response to some questions and non co-operation of the jasmine growers, 134 farmer respondents have been ignored and only 300 sample farmers are considered for further analysis. Such selected 300 sample farmers included 231(77%) from Sathyamangalam block, 58(19.3%) from Bhavanisagar block and 11(3.67%) from T.N. Palayam block.

REVIEW OF PREVIOUS STUDIES

Mariesteem and Ole Gjolberg (1999) Professors in Agricultural University of Norway analysed the seasonal price variation of flowers like chrysanthemum, carnation and roses prices at Dutch Flowers Auctions. The study highlighted that flower production in Dutch is twice as much as Germany. A large part of Dutch flowers production is traded at flowers auctions organised through the Association of Dutch Flowers Auctions. This study also analysed standard deviation and co-efficient variation of chrysanthemum, carnation and roses.

Mohamed Hasrat Ali and Banerjee (2000) conducted a study with objectives of analyse the fluctuation in monthly prices of Bela flower (Jasmine Sambar) in West Bengal. To examine price fluctuation one primary wholesale market (Mullickhat) and two retailer markets have been selected. Regarding price fluctuation, they found that average maximum wholesale price in noted to prevail in the months of June to August whereas minimum during the months of April-May. The producer's reap about 60% and 30% of the consumer's rupee at maximum and minimum price levels respectively.

OBJECTIVES OF THE STUDY

The present study is undertaken to analyse the jasmine price behaviour in Coimbatore and Mysore flower market.

PRICE MOVEMENTS IN COIMBATORE AND MYSORE FLOWER MARKETS FOR JASMINE

It is found that the sample farmers are selling their jasmine through commission agents, village traders, and local marketers. Of which, main outlet is through commission agents of Coimbatore and Mysore. It is observed that jasmine plucking starts from 5 a.m. onwards. Such early plucked flowers are sent to Coimbatore and Mysore so as to reach at early hours at market destination. Usually, in the early morning plucking is fetching good prices. Second, third and fourth plucking is marketed through village traders and local market. Moreover, due to lack of proper marketing facilities, very often, jasmine growers are deprived of remunerative price. Table 1 shows the price movements of jasmine during the period from 2005 to 2009.

TABLE 1
PRICE VARIATION OF JASMINE IN COIMBATORE AND MYSORE MARKETS FROM THE YEAR 2005 TO 2009

		(Rs. per kg)					
Years	Months	2005	2006	2007	2008	2009	Monthly totals for five years Rs. Ps
January –	C	98.02	90.00	80.00	95.94	63.33	427.29
	M	80.60	35.04	29.00	43.27	40.00	227.91
February –	C	39.40	71.42	56.04	60.02	56.00	282.98
	M	30.00	25.00	27.00	40.00	61.28*	183.28
March –	C	19.60 [@]	16.67 [@]	24.00	36.80	63.14	160.21
	M	26.00*	42.00*	19.00	30.00	38.93	155.93
April –	C	37.00	30.07	31.14	48.00	41.02	187.23
	M	29.80	41.00	51.00*	31.00	35.42	188.22
May –	C	26.45	28.30	33.00	23.17	19.67	130.59
	M	23.00 [@]	30.60	35.00*	20.00 [@]	29.58 ^{*\$}	137.64
June –	C	21.53	39.17	21.40 [@]	72.57	54.00	208.67
	M	26.25*	36.20	18.00 [@]	40.00	32.04	152.49
July –	C	26.25	53.04	32.50	18.00 [@]	16.30 [@]	146.09
	M	24.05	24.10	26.90	20.10	31.16*	126.31
August –	C	34.01	29.40	25.20	73.25	61.33	223.19
	M	140.00 ^{*\$}	52.00 ^{*\$}	34.00*	63.00	38.11	327.11
September –	C	68.70	71.00	73.00	94.50	40.14	347.34
	M	110.00*	40.10	60.00	84.00	36.00	330.10
October –	C	45.40	46.09	52.08	56.82	45.00	245.39
	M	30.00	30.00	40.00	55.00	39.53	194.53
November –	C	36.12	29.60	58.26	82.02	64.00	270.00
	M	25.00	20.00 [@]	32.15	80.00	58.36	215.51
December –	C	117.62 ^{\$}	140.09 ^{\$}	237.33 ^{\$}	142.90 ^{\$}	108.62 ^{\$}	746.56
	M	23.10	35.90	120.00 ^{\$}	110.00 ^{\$}	102.45 ^{\$}	391.45

Source : Copy of bills produced by traders to the farmers.

Note : C – Coimbatore; M – Mysore.

\$: High price during the particular year and

@: Low price during the particular year.

Table 1 clearly exhibits that Coimbatore market price is always higher than that of Mysore market except in starred (*) periods. In this regard, sample farmers have stated that even if Mysore market fetches a low price there will be assured sales and traders can accept any quantity of jasmine irrespective of quality. But, in Coimbatore market there are chances to reject the jasmine in the name of late arrival and poor quality. Even if they accept such late arrival, there will be abnormal deductions in the name of ‘thallal’ (rejection).

During the year 2009, it is found that in peak season (high yield season) i.e., between March and June, jasmine price in Coimbatore market ranges from Rs.19.67 to Rs.63.14 per kg. That is the lowest range in the month of May and the highest range in the month of March. In Mysore market, during peak periods (i.e., March to June) prices are found to be ranges from Rs.29.58 to Rs.38.93 per kg. It is clear that prices are at the lowest range in the month of May and the highest range in the month of March.

During the lean season, (low yield season) i.e., between October and February in Coimbatore market, price varies between Rs.45 and Rs.108.62 per kg. That is the lowest range in the month of October and the highest range in the month of December. During the same period in Mysore market, price ranges between Rs.39.53 and Rs.102.45 per kg. Lowest range and highest range are in the months of October and December respectively. It is found that during the months of July, August and September, it can be stated that there will be very low yield or no yield. Hence, during these periods prices are high and even during these periods if there is no religious festival or marriage, growers will get only low price.

SEASONAL VARIATION OF JASMINE PRICE IN BOTH COIMBATORE AND MYSORE FLOWER MARKETS

Seasonal price variation means to regular price variation occurring within a marketing season. Fluctuations in prices and volume of market arrivals are more pronounced in case of agricultural than industrial commodities due to recurring seasonal pattern of demand/or the biological nature of farm production. Price fluctuations for farm products are caused by variations in either the volume of sales, or in demand or in both. However, such variations serve in the restoring equilibrium between the demand for the product and its supply.

The widespread fluctuations in the prices of jasmine during the last five years (from 2005 to 2009) have caused widespread uncertainty in the income level of jasmine growers. On the other hand it has brought adverse effect on the living standard and the allocation of land for jasmine cultivation.

The seasonal price variations are occurring with some regularity during the year. The pattern of seasonal variation in prices of agricultural commodities indicates lower price during the post harvest months and higher prices during pre-harvest and off season months.

To examine the seasonal variation of jasmine price in both Coimbatore and Mysore flower markets, five years time series of price data from 2005 to 2009 are used. Seasonal fluctuations are calculated by the time series analysis i.e., by the method of simple averages.

As jasmine is highly perishable, it is characterised by wide fluctuation in prices. The better prices of jasmine depend upon a number of factors like plucking time, dispatching time, festivals and marriages.

Seasonal Variation Index for each month is calculated with the following formula. For example for the month of January,

$$\frac{\text{Monthly average for January}}{\text{Average of monthly averages}} \times 100$$

Apart from this, it is decided to examine the price stability between Coimbatore and Mysore flower markets. The variability in prices of jasmine in these two markets is determined by co-efficient of variation and this is used to assess the market-wise extent of variation in jasmine price across the month. In order to study, the variability in jasmine prices, the following formula is used.

$$\frac{\text{Standard deviation}}{\text{Mean}} \times 100$$

All these analysis are shown in Table 2.

TABLE 2

SEASONAL VARIATION INDICES OF COIMBATORE AND MYSORE MARKETS' JASMINE PRICE BY THE METHOD OF SIMPLE MONTHLY AVERAGES (2005-2009)

Months	Coimbatore			Mysore		
	Monthly totals for five years Rs. Ps	Five yearly average Rs. Ps	Seasonal variation index (%)	Monthly totals for five years Rs. Ps	Five years average Rs. Ps	Seasonal variation index (%)
January	427.29	85.46	151.82	227.91	45.58	103.97
February	282.98	56.96	101.19	183.28	36.66	83.62
March	160.21	32.04	56.92	155.93	31.19	71.15
April	187.23	37.45	66.53	188.22	37.64	85.86
May	130.59	26.12	46.40	137.64	27.53	62.80
June	208.67	41.73	74.13	152.49	30.50	69.51
July	146.09	29.22	51.91	126.31	25.26	57.62
August	223.19	44.64	79.30	327.11	65.42	149.22
September	347.34	69.47	123.41	330.10	66.02	150.59
October	245.39	49.08	87.19	194.53	38.91	88.75
November	270.00	54.00	95.93	215.51	43.10	98.31
December	746.56	149.31	265.25	391.45	78.29	178.58
Total		675.48	1200		526.10	1200
Mean		56.29	100		43.84	100
Standard deviation		32.49			16.36	
Co-efficient of variation (%)		57.72			37.32	

From the Table, it could be observed that the co-efficient of variation of average seasonal indices in Coimbatore and Mysore is 57.72% and 37.32% respectively.

The co-efficient of variation in prices of jasmine is found to be higher in Coimbatore flower market. Hence, it is clear that Mysore flower market price is more stable than that of Coimbatore flower market. Further Table 2 reveals that the seasonal variation percentage is high in Coimbatore market during the month of December (265.25%) and low variation percentage during the month of May (46.40%). This means that for the month of December, the price happen to be 2.65 times of those of the monthly average price. The monthly average price in Coimbatore market is stood at Rs.56.29 per kilogram. On the basis of average price, it is easy to infer that the Coimbatore market prices are found to be above average price only during the months of January, February, September and December. These months are coming under lean seasons.

In Mysore market too, the percentage of variation in jasmine price is highly fluctuating. It is observed that a high percentage (178.58%) of seasonal variation is found during the month of December and a low percentage (57.62%) of variation is found during the month of July. This means that for the month of December, the price happens to be 1.79 times of those of the monthly average price. The monthly average price in Mysore market is found to be Rs.43.84 per kilogram. On the basis of average

price, it is inferred that the Mysore market prices are found to be above average price only during the months of January, August, December and September. These months are coming under lean seasons. The causes for such seasonal variation in prices of jasmine are connected with the quantity of yield i.e., quantity of supply and the other factors like wedding seasons and festivals. From the foregoing analysis, it is clear that the jasmine prices have oscillated both in upward and downward directions. The causes for such seasonal fluctuation in prices of jasmine are connected with its production cycle.

CONCLUSION AND SUGGESTIONS

In this paper the jasmine price movements in both Coimbatore and Mysore flower markets are examined with statistical tools like Mean, Range, Standard deviation and Co-efficient of variation.

Indeed, the price analysis of jasmine assumes greater significance not only to the policy makers in formulating developmental plans but to both producers and consumers as well. Further, an understanding of prices will be of immense help to the growers in forecasting.

Since jasmine is a perishable item, it is required to be marketed immediately after its plucking; else its quality shall deteriorate quickly. It is for this reason that the price of jasmine tends to show greater variations than variation in any other commodity. There are various factors such as quality, demand and supply, seasonal and climatic conditions of the region, efficiency of the channel, availability of transport facilities, number of middlemen and their activities and distance between farm and market.

It is found that main deciding factor of price of jasmine is supply. On the basis of information gathered from the sample farmers, it is identified that months between March and June are considered as peak periods (high yield season) and months between October and February are considered as lean period (low yield season). During the months of July, August and September, there will be no yield or even if at all, there will be a very meagre yield.

On the basis of the above analysis, the following suggestions are made:

- Fluctuation of prices poses big problems to the jasmine growers. Particularly, to the small and marginal jasmine growers. Forming co-operatives by the growers at village level can solve this problem. Otherwise to rescue the jasmine growers, Government should come forward to announce the minimum pricing policy so as to adjust the price variation and also to save the jasmine growers from huge loss.
- It is found that jasmine used to be sent to Mumbai by air from where it is sold for extraction of scent. But, with the rescheduling of the Coimbatore-Mumbai flight (i.e., Indian Airlines IC-658 Mumbai-Coimbatore-Mumbai) from morning to afternoon, jasmine growers are forced to market their jasmine locally. As the jasmine growers have no storage facilities, the jasmine which reaches the market in the small hours of the day, cannot be kept at the airport till afternoon. Hence, unmindful of price, the jasmine growers are forced to sell for a small price to recover their investment. The jasmine growers pleaded for setting up a cold storage in Coimbatore in the vicinity of airport for storing and transporting jasmine. This would fetch remunerative price by giving the jasmine growers an option to market the jasmine in places other than Coimbatore.

REFERENCES

Behri, O.P.(1993) “Marketing of Cut flowers in India:- An overview”, Agricultural Marketing, Vol.XXXVI, No.1, April – June, p.13.

Uma Shankar Patnaik,K.and Anbumozhi, K.1991 Price behaviour of Indian Agricultural Commodities, New Delhi, Discovery publishing house, p.1.

ibid., p.3.

Season and Crop Reports, (2000-2001) (Fasali 1410), Government of Tamil Nadu and ‘G’ Reports of Erode District.

Marie Steem and Ole Gjolberg (1999) “Forecast of prices at the Dutch Flower Auction”, Journal of Agricultural Economics, Vol.50, No.2, May. pp.258-268.

Mohamed Hasrat Ali and Banerjee,B.N,(2000) “Economic analysis and marketing aspects of Bela flower in West Bengal”, Agricultural Marketing, Vol.XLIII, No. 3, pp.5-8.

Shringi, K.C.(1991) Economic impact of market yields in Rajasthan, New Delhi, Konark publications (p) Ltd., p.116.

Debabrata Lahiri, (1990) “Seasonal variation in arrival and prices of Betal leaf in Midnapur district of West Bengal” Indian Journal Agricultural Marketing, Vol.4.No.2 pp.184-188.
