

Economic Study of Guava Marketing in District Kanpur Nagar (U.P.)

Tej Singh^{1*}, J. Rai², Amit Kumar³, Balwan Singh⁴, Birendra Kumar⁵ and Anani Singh⁶

^{1,2,4,5,6}Department of Agriculture Economics and statistics, ³Department of Crop physiology

Chandra Shekhar Azad University of Agriculture and Technology Kanpur 208002

*Corresponding Author E-mail: tejsingh0106@gmail.com

Received: 15.06.2019 | Revised: 23.07.2019 | Accepted: 30.07.2019

ABSTRACT

Guava (Psidium guajava) belong to family Myrtaceae, the apple of tropics, has been cultivated in India since early 17th century and is one of the most common fruit in India. It is now cultivated all over the tropics and sub-tropics. In India, it is successfully grown in Karnataka, Uttar Pradesh, Bihar, Madhya Pradesh, Maharashtra, West Bengal, Orissa and Tripura. It is one of the most common fruits in India and has become popular because of its availability almost throughout the year at moderate prices. The study of marketing two wholesale markets one at Kanpur Nagar and other at (market) were selected purposively because of higher arrival of guava. Three marketing channels were observed to study the price spread as-Channel I, Channel II and Channel III. The maximum producer's share in consumer's rupee was calculated in channel III i.e. 63.74%. The price spread was in the range from 36.89%, 37.20% to 36.26%. Incidence of pest and diseases, irregular bearing, fruit drop are the main constraints of production. The study of price spread through different marketing channels revealed that the producer's share in consumer's rupee was highest producer's share in consumer's rupee 63.74 per cent in channel III followed by 63.11 per cent in channel I and 62.80 per cent in channel II respectively. As regards, percentage share of price spread in total price paid by consumer, it varied from channel to channel. In channel I, the price spread came to 36.89 per cent while in channel II it was 37.20 per cent and in channel III it was 36.26 per cent in the guava marketing.

Keyword: Marketing channels, Marketing cost, Marketing margins and Price spread.

INTRODUCTION

Guava (*Psidium guajava* L.), also known as “apple of the tropics” and poor man’s apple, is the most important, highly productive, delicious and nutritious fruit, grown commercially throughout tropical and subtropical regions of India. Its fruits are

available throughout the year except during the summer season. It occupies a pride place amongst the important fruits grown in the country and claims to be the fourth most important fruit in area and production after mango, banana and citrus.

Cite this article: Singh, T., Rai, J., Kumar, A., Singh, B., Kumar, B., & Singh, A. (2020). Economic Study of Guava Marketing in District Kanpur Nagar (U.P.), *Ind. J. Pure App. Biosci.* 8(3), 445-450. doi: <http://dx.doi.org/10.18782/2582-2845.7677>

The best flavor and aroma of guava is achieved when it ripens on the tree. In most commercial varieties, fruit ripeness is indicated by yellowing of skin. For local markets, yellow but firm fruits are harvested, whereas light yellow fruits are picked for distant markets. Fruits are harvested selectively by hand along with the stalk and leaves. Marketing play a very important role in the profitability of any agricultural product. An efficient marketing result in higher profitability. The involvement of long chain of intermediaries cause low share of guava producer's in the price paid by the final consumers. The long share of marketing cost in general enjoyed by the intermediaries in the farm of their margins. Therefore, urgent need to study the channels involved in the marketing of guava and means to minimize the channels for increasing the producer's share. The proper grading, packing and transportation will definitely increase the efficiency of the marketing in the study area, which will result in higher profitability to the guava growers. Guava is more popular in Uttar Pradesh where it is largely cultivated in commercial orchards in Katari area of district Kanpur Nagar.

MATERIALS AND METHODS

On the basis of area under guava, different methodological aspect adopted for selection of district, blocks, villages, farmers and different tools for analysis and interpretation of data for the aforesaid investigation. Chakarpur fruit mandi, Kanpur Nagar was selected for the study of market and market functionaries for guava. A list of all the market functionaries of the selected mandi was prepared out of which 10 per cent market functionaries were interviewed to find out the marketing cost, market margin and Producer's share in Consumer's price.

The study was based mainly on primary data, but secondary data were also used. Secondary data were obtained from records of the different organizations link and Lekhpal record, block headquarters, subdivision headquarters, district headquarters, district statistical office, district horticultural

office agricultural census report, reports and publications etc. The study was based on agricultural year -2015-16.

For processing of data the following analytical tools were used. Tabular analysis was done to compare different aspect of economics on different categories of the selected guava growers. Simple comparisons have been made on the basis of percentage values observed. The weighted average is used to compare the data in the enquiry to estimate the average is given below.

$$\text{Weight mean} = \frac{\sum WX_i}{\sum W}$$

Where, W=Weight of Xi

Xi=Variable

Since guava is perishable crop and there is no proper storage facilities at farmer level therefore all most the produce varying the family consumption, are sold immediately after harvesting. Therefore, the marketable/marketed surplus may same in the case .The marketable/marketed surplus of guava generated by different categories of farmer would be worked out as follow:-

$$MS=P-R$$

Where,

MS=Marketable/Marketed Surplus

P=Total Production of guava

R=on farm utilization of guava

The producer's share in consumer's price in case of guava generated by different categories of farmer worked out as follow.

$$PS = \frac{RP - MC}{RP} \times 100$$

Where,

PS=Producer's share in Consumer's price (in percentage)

RP=Retail Price of Guava

MC=Marketing Cost including marketing margins.

RESULTS AND DISCUSSION

The need for proper disposal of guava produce is also important than the need for its better production. The process of agricultural production cannot be complete without the sale of agricultural produce. Thus, besides

production aspects the present study also attempts to examine the marketing aspects of guava in the study area. It included marketing functionaries/agencies, marketing channels, marketing costs and margins and producer's share in the consumer's price in guava marketing. It has been presented as below.

Marketing functionaries/ agencies:

The persons involved in handling the produce from the producer to the final consumer are termed as market functionaries. The main market functionaries involved in the marketing of guava were Arhatiyas, contractors, wholesalers, retailers processing agents, palledars, weighman etc. As regards agencies, it included producer, contractor, commission agents, wholesaler, retailers etc.

Producer: Most farmers or producers, perform one or more marketing functions. Usually the farmers gave their guava orchards to pre-harvest contractors at various stages to avert yield and price risk.

Pre-harvest contractors: Contractors refers to those individuals or business concern who promises to deliver or accept delivery of commodity at a specified time in future. They use to take guava orchards from producer before guava fruiting under certain terms and conditions.

Wholesalers: Wholesalers refers to those traders who sell and purchase the guava in very large quantities. These wholesalers are assisted by village traders and arhatiyas in their trade. They generally perform the function of assembling, storing of guava grading, risk bearing and marketing finance. The losses occurred due to rotting & loss in weight may be charged at the rate of 10-15 per cent.

Retailers: Retailers purchase the guava from the wholesalers at wholesale price and sell it to the consumers. In general, they perform the function of storing, and distribution of the produce to the consumers. The profit earned by the retailer in buying and selling the produce is known as retailer's margin.

Commission Agent: A commission agent is a person operating in the wholesale market who acts as the representative of either a seller or a buyer. He is usually granted broad powers by those who consign guava or who order the purchases. A commission agent normally takes over the physical handling of the produce, arranges for its sale, collects the price from the buyer, deducts his expenses and commission, and remits the balance to the seller.

Determination of Marketable/ Marketed Surplus:

Since guava is perishable crop and there is no proper storage facilities at farmer level therefore all most the produce varying the family consumption, are sold immediately after harvesting. Therefore, the marketable/marked surplus may same in the case of guava.

Marketing channels:

Marketing channels are routes through which agricultural products move from producers to consumers, the length of the channel varies from commodity to commodity, depending on the quantity to be moved, the form of consumer demand and degree of regional specialization in production.

The marketing channels used in guava marketing in the study area are given bellow.

Channel I Producer → Commission Agent → Wholesaler → Retailer → Consumer.

Channel II Pre-harvest contractor → Commission agent → Retailer → Consumer.

Channel III Pre harvest contractor → Wholesaler → Retailer → Consumer

Marketing cost:

It included all the marketing charges from local assembling to retailing in the marketing process. Marketing costs limit the income of the producer, affect the purchasing power of the consumers and reduce profit of the marketing agencies. The marketing cost incurred by producer/pre-harvest contractor, wholesaler and retailer in the process of guava marketing has been given in table-1.

Table 1: Channel I, Channel II and Channel III Marketing cost incurred by producer/pre-harvest contractor, commission agent, wholesaler & retailer (In Rs. per quintal).

Sr. No.	Particulars	Channel I	Channel II	Channel III
A	Charges paid by producer/ pre-harvest contractor			
1	Cost of box	-	400	400
2	Cushion materials	-	40	40
3	Transportation	35	35	35
4	Loading unloading	10	10	10
5	Token fee	8	8	8
6	Arhat	35	35	35
7	Mandi charges	30	30	30
	Total	118	558	558
B	Charges paid by commission agent			
1	Post and telegram	45	45	-
2	Miscellaneous charges	40	40	-
	Total	85	85	-
C	Charges paid by wholesaler			
1	Packing charges	400	-	-
2	Transportation	35	-	35
3	Loading unloading	10	-	10
4	Storage cost	10	-	10
5	Mandi fees	30	-	30
	Total	485	-	85
D	Charges paid by retailer			
1	Transportation	35	45	25
2	Unloading	10	10	10
3	Mandi charges	30	45	30
4	Storage cost	10	10	10
	Total	85	110	75

Table-1 shows that marketing cost incurred by pre-harvest contractor stood highest (Rs. 558 per quintal) in channels II and III only. The next highest cost was incurred by wholesalers followed by commission agents and retailers.

Marketing margins:

It covered all the expenses and profits of the marketing agencies/ functionaries. It is that

part of consumer's rupee above the farmer's share. The marketing margins (marketing cost + margin profit) in guava marketing for different channels have been given in Table-2. The marketing margins (marketing cost + margin profit) in guava marketing for channel I have been given in Table-2.

Table 2: Total marketing cost and margins (In Rs. per quintal) Channel I Channel II and Channel III.

Sr. No.	Particulars	Channel I	Channel II	Channel III
A	Marketing cost			
1	Paid by producer/pre harvest contractor	118	558	558
2	Paid by commission agent	85	85	-
3	Paid by wholesaler	485	-	85
4	Paid by retailer	85	110	75
	Total (A)	773 (51.90%)	753 (52.50%)	718 (47.60%)
B	Margin of profit			
1	Producer /pre harvest contractor	-	90	90
2	Commission agent	150	150	-
3	Wholesaler	240	-	260
4	Retailer	325	440	440
	Total (B)	715	680	790
	Total (A+B)	1488 (48.00%)	1433 (47.46%)	1508 (52.40%)

In guava marketing, total marketing margin varied from Rs. 1433 to Rs. 1508 per quintal in various channels, depending upon the length of marketing channel.

Table-2 shows that the marketing cost in different marketing channels shared for 51.90, 52.50 and 47.60 per cent in I, II & III channels respectively. While margin of profit stood 48.00, 47.46 and 52.40 per cent in the respective channels.

In channel I marketing cost was higher than margin of profit due to presence of market functionaries like commission agent, wholesaler and retailers. In channel II there was no wholesaler so, the margin of profits were comparatively lower.

Price-spread:

Generally, it refers to the difference between the two prices, i.e., the price paid by the

consumer and the price received by the producer. A study of the price spread involves not only the ascertainment of the actual prices at various stages of the marketing channel, but the costs incurred in the process of the movement of the produce from the farmer to the consumer and the margin of various intermediaries.

Producer's share in the consumer's Rupee from channel I, channel II and channel III:

It is the share of producer which he actually gets out of the amount paid by the consumer for his produce. In this regard, table-3 works out the net price spread/producer's share in consumer's price, in guava marketing at Kanpur Nagar mandi.

Table 3: Producer's share in consumer's price in guava

Sr. No.	Particulars	Channel I	Channel II	Channel III
1	Producer's sale price	2100	2200	2150
2	Charges paid by producer/pre harvest contractor	118	558	558
3	Margin of profit of contractor	-	90	90
4	Commission agent expenses	85	85	-
5	Commission	150	150	-
6	Purchase price of wholesaler	2453	-	2798
7	Charges paid by wholesaler	485	-	85
8	Losses due to rotting and losses in weight etc.	(-)120	-	(-)150
9	Margin of wholesaler	240	-	260
10	Retailer's purchase price	3058	3083	2993
11	Charges paid by retailer	85	110	75
12	Losses due to rotting etc.	(-)140	(-)130	(-)135
13	Margin of retailer	325	440	440
14	Consumer's purchase price	3328	3503	3373
15	Producer's share in consumer's rupee	63.11	62.80	63.74
16	Price spread	36.89	37.20	36.26

The producer's share in consumer's price table-3 in guava marketing came to 63.11 per cent in channel I, when the guava was sold in district Kanpur Nagar. Against this situation, the producer's share was higher, nearly 62.80 per cent when the guava were sold in other mandi (study area) in channel II. The highest producer's share in consumer's rupee was 63.74 in channel III. In channel I, the producer's share was low due to presence of a long chain of middlemen in the marketing process. Besides this, the wholesaler of Kanpur Nagar has to bear higher marketing cost due to higher transportation charges, In channel II, there was no wholesaler and the retailer purchased the produce directly from pre-harvest contractor through commission agent, while in channel III, there was no commission agent and the wholesaler made direct purchase from pre-harvest contractor, resulting in higher share of producer in the price paid by the consumer.

As regards, percentage share of price spread in total price paid by consumer, it varied from channel to channel. In channel I, the price spread came to 36.89 per cent while in channel II it was 37.20 per cent and in channel III it was 36.26 per cent in the guava marketing.

CONCLUSION

In case of study of marketing two wholesale markets one at Kanpur Nagar and other at (market) were selected purposively because of higher arrival of guava. Three marketing channels were observed to study the price spread as-

- Channel I producer -- commission agent -- wholesaler -- retailer -- consumer.

- Channel II pre-harvest contractor -- commission agent -- retailer -- consumer.

- Channel III pre-harvest contractor – wholesaler – retailer – consumer.

Marketing cost calculated in channel I was came to Rs. 773 and for channel II and III it accounted for Rs. 753 and Rs. 718 respectively. Marketing margin calculated for these three channels were Rs. 715, Rs. 680 and Rs. 790 respectively.

The study of price spread through different marketing channels revealed that the producer's share in consumer's rupee was 63.11 per cent in channel I, 62.80 per cent in channel II and 63.74 per cent in channel III. The highest producer's share in consumer's rupee. i.e. 63.74 per cent was achieved in channel III. The producer's share in consumer's rupee came low in case of channel II where the produce was sold in Kanpur and the highest price spread was observed in channel II i.e. 37.20 per cent.

As regards, percentage share of price spread in total price paid by consumer, it varied from channel to channel. In channel I, the price spread came to 36.89 per cent while in channel II it was 37.20 per cent and in channel III it was 36.26 per cent in the guava marketing.

REFERENCES

- Arora, Y. P. S. C. (2004). Marketing of minor with reference to constraints in production, marketing and their solution. *Research Project @www.google.com*.
- Khunt, K. A. (2003) Economics of production and marketing of Pomegranate. *Ind J. Agrit Econ.* 17(1), 100.
- Kumbhar, J. S., Pawar, P. P., & Patole, S. (2014). Economics of production and marketing of guava in Maharashtra. *International Journal of Agricultural Sciences.* 10(2), 592-599.
- Rahman, S. M. K., Haque, A., & Islam, A. (2006). Production and marketing system of guava in some important growing areas of Bangladesh SAARC Agricultural Information Centre (SAIC), Dhaka, Bangladesh, *SAARC Journal of Agriculture.* 4, 55-56.
- Sain, Luhach, V. P., Luhach, V. J., Mehla, M. S. (2013). Marketing of guava in Fatehabad district of Haryana state. Department of Agricultural Economics, CCS Haryana Agricultural University, Hisar - 125 004, Haryana. *Annals of Agri Bio Research.* 19(2), 340-342.