

## **Economics of marketing of *Green Chilli* in Western Maharashtra**

**S.G. DEORE, P.P. PAWAR AND S.L. PULATE\***

Department of Agricultural Economics, Mahatma Phule Krishi Vidyapeeth, Rahuri,  
Ahmednagar (M.S.) India

### **ABSTRACT**

The present study was intended to depict the picture of green chilli growing enterprise in Dhule and Jalgaon districts of Maharashtra state. The study examined marketing costs, market margins, price spread and problems involved in the marketing of green chilli. Chilli cultivated in Dhule and Jalgaon districts are predominantly sold in the form of green chilli. Sakri tahsil of Dhule district and Amalner tahsil of Jalgaon district having largest area under green chilli were purposively selected for the present investigation and three villages from each tahsils were selected. The total sample consists of 90 green chilli growers comprising 30 each from small, medium and large group. Data collected pertained to the year 2010-2011. Different marketing channels were followed by the sample farmers. However, Producer-Wholesaler/Commission agent/Retailer-Consumer was the major marketing channel. The major items of cost were transport charges, Commission charges, storage and drying charges etc. The producer's share in consumer's rupee was found to be 54.44 per cent in Channel-I, 52.12 per cent in Channel-II and 67.75 per cent in Channel-III. The major problems faced by the green chilli growers in marketing, the major problems were high commission charge charges (86.67 %), high transport charges (86.67 %), price fluctuations (84.44 %), and malpractices in market. The study, suggests that the researchers should evolve disease and pest resistant varieties of chilli, formation of co-operative marketing societies for better sale. Extension education programmes have to be strengthened for the spread of the awareness of improved production technologies and modern cultivation of chilli among the farmers

**Key Words :** Economics, Green Chilli

### **INTRODUCTION**

Agriculture is the single most dominant sector of the national economy contributing nearly 23.3 per cent of its national income (2010-11). The agrarian economy of India continues to be backbone of socio-economic structure of the country. About two third of the population depends for their subsistence and livelihood on the farming. Indian Agriculture has achieved a major break through in production of food grains as much as 257 million tones during year (2011-12). The fruits may be as small as about 18 mm long or as big as that of large tomato fruit sized. Fruits may be green, red, black, yellow, white; the green and red being the most common.

India is the leading country in production, consumption and export of chilli and chilli based products. The area under chilli in world was 29.45 lakh ha in 2000-2001 to 35.24 lakh ha in 2010-2011. India is not only the major producer and consumer of chilli but also major exporter of chilli and chilli based products. This is mainly because of high domestic consumption.

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The major chilli producing countries are India 8.23 lakh ha, China 7.32 lakh ha, Morocco 6.22 lakh ha, Pakistan 4.30 lakh ha, Mexico 2.23 lakh ha. (indiastat.com 2008-09). India ranks first with 23 per cent share in the total world export trade. In the world import trade, USA is the main importing country of chilli followed by Germany, UK, Canada, Netherlands, China, Belgium, Italy and Singapore. Chilli is cultivated in almost all the states and the Union territories of India. It is reported that our country produced 831492 tonnes of chilli from an area of 823748 hectares with productivity of 1020 kgs per hectare in the 2008-09. The states viz., Andhra Pradesh, Kerala, Karnataka, Maharashtra, Orissa, Tamil Nadu, West Bengal, Madhya Pradesh, are the major producers of chilli in the countries which contribute about 80 per cent to the total area and production of chilli.

In Maharashtra area under chilli cultivation 101000 ha with production 44000 tonnes, having productivity 440 kg ha<sup>-1</sup> (2008-09). The production is concentrated in Nagpur, Chandrapur, Dhule, Buldhana, Kolhapur, Jalgaon and Thane districts of Maharashtra.

In this study to examine marketing practices and pattern of disposal of Green Chilli, estimate marketing cost and price spread in markets of producing area and the problems in marketing of Green Chilli and suggest the measures are studied.

## METHODOLOGY

The selection of Dhule and Jalgaon district was done purposively as these districts are the major districts in producing green chilli in Maharashtra and it has its own problems of marketing.

### **Data requirement :**

1. Information on marketing channels and marketing cost of green chilli
2. Information pertaining to the price spread of green chilli
3. Information on constraints faced by the sample chilli grower in marketing of green chilli

### **Estimation of marketing cost:**

It includes the grading and packing charges comprising the wages paid to the labour, value of packing material and other charges, transport cost includes transport charges including loading and unloading charges and market cost comprising hamali, weighing and Commission/market charge charges. The cost actually paid by the selected farmers was considered and analyzed.

### **Marketing channels :**

The marketing channels are the routes consisting of various agencies through which the producer sells his produce to the ultimate consumer. Once the production of green chilli completed, it has to reach to the consumer. It involves the different pathways. The pathway by which the produce reaches to the consumer is called the marketing channel. There can be one or more marketing channels for the same produce. In the present study, efforts were made to find out different marketing channels.

### **Market intermediaries:**

Market intermediaries are those who are specialized in performing various marketing functions involved in purchase and sale of produce as to move from producer to the consumer.

### **Commission agent cum wholesaler :**

Commission/market charge Agent/Wholesaler/ commission agent charge specific rate of Commission/market charge at the time of sale of produce. Sometimes communicate with the prices of the produce.

**Retailer:**

Retailer performs the function of purchase and sale of produce. The quantity purchased and sold to the consumer is comparatively smaller.

**Marketing efficiency (ME)**

The marketing efficiency of various markets will be worked out by modified method as suggested by Acharya and Agrawal (1999) and will be calculated as,

$$MME = [RP - (MC + MM)] - 1$$

where,

MME = Modified measure of marketing efficiency

RP = Price paid by consumer or retailer's sale price.

MC = Total marketing cost and

MM = Net market margin

The marketing margins at different stages of marketing are given by,

$$1. M_i = \frac{Y_i}{Y_k} \times 100$$

2. Percentage share of the  $i^{\text{th}}$  agency in marketing channel to the consumer's rupee.

$$M_i = \frac{Y_i}{Y_k} - Y_i \times 100$$

3. Percentage share of the retailer (last stage in marketing) to the price paid by the consumer.

$$M_k = \frac{Y_k - Y_{k-1}}{Y_k} \times 100$$

Let  $M$  be a vector of shares of different agencies functioning in the marketing channel as given below :

$$M = M_1, M_2, M_k$$

$$M_i = 1$$

where,

$k$  = Marketing channels involving in stages of marketing for a commodity for a period  $N$  for which estimates of marketing margin are required.

$Y_{ij}$  = The average price of commodity for the  $j^{\text{th}}$  period at  $j^{\text{th}}$  stage of marketing ( $j = 1, 2, \dots, N; i = 1, 2, \dots, K$ )

$Y_1, Y_2, \dots, Y_k$  = The average price of  $k$  stage of marketing (where  $Y_1$  - Net price received by the producer and  $Y_k$  - the price paid by the consumer and the rest being the prices at different intermediary stages of the marketing channel. In the present study, the concurrent margin method was used in studying the price spread.

## RESULTS AND DISCUSSION

**Marketing channels :**

The marketing system for assembling and distribution of green chilli consist of chilli grower, Commission/market charge agent cum wholesaler/commission agent, village trader, retailer and consumer. In case of green chilli there are three major channels seen in Dhule and Nasik market. These channels were namely.

Channel I ® Producer ® Wholesaler/commission agent ® Retailer ® Consumer

Channel I ® Producer ® Village trader ® Consumer

Channel III ® Producer ® Retailer ® Consumer

The first channel *i.e.* P – W – R – C was most popular in Nasik market as most of the farmers sold their green chilli through this channel.

#### Marketing cost :

Various marketing charges for sale of green chilli for different size group of holdings in the popular marketing channel in both markets was studied and results are presented in Table 1

From the Table 1, it is revealed that, per quintal cost for sale of green chilli was incurred (Rs.167.37) at overall level, while the channel I was highest (Rs.228.96) followed by channel II (Rs.213.53) and channel III (Rs.59.63).

<b>Table 1 : Channel wise average cost of marketing of chilli (Rs./q)</b>				
Particulars	Channel I	Channel-II	Channel-III	Overall
Packing charges	7.05 (3.08)	7.12 (3.33)	6.62 (11.1)	6.93 (5.84)
Transport (%)	80.6 (35.2)	65.78 (30.81)	50.21 (84.21)	65.53 (50.07)
Hamali	8.5 (3.71)	8.13 (3.81)	2.8 (4.7)	6.48 (4.07)
Tolai	4.66 (2.04)	4.1 (1.92)		2.92 (1.32)
Commission/market charge	128.15 (55.97)	128.4 (60.13)		85.52 (38.70)
Total marketing cost	228.96 (100)	213.53 (100)	59.63 (100)	167.37 (100.00)

(Figures in the parentheses indicate the percentage of their respective total)

At overall level incurred large proportion of expenditure on transportation (50.07 per cent). While Channel I incurred large proportion of expenditure on Commission/market charge charges (55.97 per cent) followed by transportation (35.20 per cent), hamali (3.71 per cent), packaging charges (3.10 per cent). Channel II incurred maximum expenditure on Commission/market charge ( 60.13 per cent) followed by transportation (30.81 per cent), hamali (3.81 per cent), packaging charges (3.33 per cent). While in channel III maximum expenditure on transportation (84.21 per cent) followed by packaging charges and hamali (4.70 per cent) and no Commission/market charge charges in this channel.

#### Price spread and marketing margin :

Marketing of agriculture produce is not complete till the produce reaches in the hands of final consumer. Marketing is a process by which the agriculture goods travel through different agencies to reach to the hands of final users. In this process, different marketing agencies or intermediaries are involved. They incur some costs and get profit. There is difference between the price received by the producer and price paid by consumer. The difference in price is called as 'market margin'. The share and costs of different intermediaries are spread over in the process of transferring goods from producer to consumer and this gives an idea of price spread. The channel wise price spread and marketing margin were worked out in the present study.

#### Channel-wise price spread and marketing margin:

The channel wise price spread and market margin was worked out in the present study and the same is given in the Table 2.

Channel-I, where the producer sold his produce to commission agent -retailer and finally to consumer. The net price received by the producer was Rs. 560.40, whereas the price paid by the consumer was Rs. 1030.19, it means producer share in consumer rupee in channel was 54.44.

Among the different intermediaries in the channel, retailer received the maximum net profit of (Rs.63.88) followed by commission agent (Rs. 18.02). Highest cost of marketing was incurred retailer (Rs. 20.36) by followed by and commission agent (Rs.11.25)

Channel-II, where the producer sold his produce to Village trader/commission agent and finally to consumer. The net price received by the producer was Rs. 460.85, whereas the price paid by the

<b>Table 2 : Channel-wise price spread and marketing margin of green chilli</b>				
Sr. No.	Particulars	Channel-I	Channel-II	Channel-III
		Rs/qtl	Rs/qtl	Rs/qtl
1.	Net price received by the producers	560.84	460.85	250.49
		-54.44	-52.12	-67.75
2.	Market expenses incurred by the producers	189.16	170.15	59.63
		-18.36	-19.24	-16.13
3.	Gross price received by the producers	750	631	310
		-72.8	-71.36	-83.87
4.	Expenses incurred by the commission agents	11.25	9.18	0
		-1.09	-1.04	0
5.	Margin of the commission agents	23.35	18.02	0
		-2.27	-2.04	0
6.	Expenses incurred by the retailers	20.36	22.16	0
		-1.98	-2.51	0
7.	Margin of the retailers	63.88	54.22	0
		-6.2	-6.13	0
8.	Price paid by consumers in the market	1030.19	884.28	369.75
		-100	-100	-100
9.	Producer share in consumer rupee (%)	54.44	52.12	67.75

(Figures in the parentheses indicate the percentage of their respective total)

<b>Table 3 : Constraints in marketing of green chilli</b>				
Sr. No.	Particulars	Size groups		
		Small	Medium	Large
1.	High transport charges	26	27	25
		(86.67)	(90.00)	(83.33)
2.	High market charges	23	24	28
		(76.67)	(80.00)	(93.33)
3.	Malpractices followed in market	26	18	22
		(86.67)	(60.00)	(73.33)
4.	High Commission/market charge charges	27	26	25
		(90)	(86.67)	(83.33)
5.	Lack of market intelligence	22	28	23
		(73.33)	(93.33)	(76.67)
6.	Problems of price variation in the market	23	26	27
		(76.67)	(86.67)	(90.00)
	Total	30	30	30
		(100)	(100)	(100)

(Figures in the parentheses indicate the percentages of their respective total)

consumer was Rs. 884.28, it means producer share in consumer rupee in channel was 52.12.

Among the different intermediaries in the channel, retailer received the maximum net profit of (Rs.54.22) followed by wholesaler/commission agent (Rs. 23.35). Highest cost of marketing was incurred retailer (Rs. 22.16) by followed by and wholesaler/commission agent (Rs.9.18) .

In Channel-III, where the producer sold his produce directly to retailer instead of wholesaler/ commission agent and village trader.

It is observed from the table that, the producer's share in consumer rupee was 67.75, which was maximum that in channel III, under study in green chilli marketing.

It is seen from above that, the producer's share in consumer rupee was maximum in channel II than the other channels mainly because of less number of market intermediaries.

### **Constraints in marketing of green chilli :**

Chilli is a perishable in nature and therefore requires speedy and efficient marketing. This give rise to various problems faced by the green chilli grower in marketing of the produce are indicated in Table 3.

From the above table, it was observed that transportation was major bottle neck in efficient marketing of green chilli about 86.67 per cent farmers complained about high transportation. The price variation also emerge as important problem, about 84.44 per cent of the farmers expressed their concern over this.

High Commission/market charge was major problem for farmers, about 86.67 per cent of the sample farmers expressed their concern over this along with market charges in the markets to an extent of 83.33 per cent. About 81.11 per cent of the farmers were facing problem about the lack of marketing intelligence.

### **Conclusin:**

Among the three marketing channels identified in regulated markets, the channel- I, *i.e.* Producer-Wholesaler/ commission agent/commission Retailer-Consumer was found more popular in marketing of green chilli. In the popular channel to sale one quintal of green chilli farmer has to pay Rs. 193.21 as marketing expenses. Per quintal cost of marketing of green chilli was highly incurred by retailer followed by wholesaler/commission agent and village trader. Producer's share in consumer rupee was recorded 54.44, 52.12, 67.75 in Channel-I, Channel-III and Channel-III, respectively. In the popular channel of marketing producer's share in consumer rupee was recorded as 54.44.

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