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Marketing of rapeseed-mustard in Bharatpur district of Rajasthan

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Abstract : The present study was conducted in the Rajasthan state as it is one of the major rapeseed-mustard producing states in India. To study the costs, margins, price spread, marketing of rapeseed-mustard in Rajasthan, Bharatpur district was selected. Producer's share in consumer rupee was around 90 per cent in to channels of marketing. There was no significant difference in the price received by producer - sellers in absolute as well as in percentage term in different - channels of marketing. The marketing costs ranged from Rs. 138.03 (7.16 %) to Rs. 138.00 (7.16 %) of consumer's rupee in different channels of marketing. Marketing margins ranged from 2.58 to 2.60 per cent of consumers rupee in different channels of marketing in rapeseed-mustard marketing in the Bharatpur district of Rajasthan are not excessively high.

Key Words : Marketing, Rapeseed-mustard costs, Margins, Price spread

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INTRODUCTION

India is one of the largest producers of rapeseed and mustard in the world and contributing about 16 per cent with an acreage of 7.31 million hectares (Anonymous, 2009). Rapeseed-mustard is the second most important edible oilseed crop in India after groundnut Mustard is one of the major sources of oil and meal to India. Mustard oil is traditionally the most important oil for the Northern, Central and Eastern parts of the country. Rapeseed-mustard is the major Rabi oilseed crops of India. Major mustard producing states in country are Rajasthan, accounting more than 50 per cent of its production followed by Uttar Pradesh, Haryana, Madhya Pradesh and Gujarat. Peak arrival period for mustard seed is between February and May. Thereafter, its arrivals start declining and least in the month of October. Delhi and Hapur are the major market for repeseed-mustard in India. The 80 per cent of the mustard oil is marketed by the unorganized sector in loose form and only 20 per cent by the organized sector, mainly NODS, Jumbo, Kanodia, ITC etc. in packed form. The trade of rapeseed-mustard flow through various channels of marketing involving large number of intermediaries. The rapeseed and mustard grower's sell their produce to different agencies at different prices. Therefore, there is wide variation in rapeseed and mustard prices at farm and consumer gate. The price is not remunerative to rapeseed and mustard growers and at the same time consumer's have to pay high price which vary from channel to channel. It needs the examination of marketing cost, margin and price spread used in different channels. To study marketing aspects of this crop particularly in respect of price spread and marketing channels involved in it. The study will be useful for policy maker's, State Government, marketing department and farmer's in deciding appropriate strategies and programme for improving the economic environment for rapeseed and mustard in

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Bharatpur district. This was mainly due to positive and favourable impact of Technology mission on oilseeds (Banafar *et al.*, 2006)

MATERIAL AND METHODS

The study was carried out in Bharatpur district of Rajasthan. Bharatpur district is one of the important rapeseed and mustard producing district in the state. A list of markets in Bharatpur district was prepared, from these market, one market i.e. Krishi Upaj Mandi, Bharatpur was selected on the basis of highest rapeseed and mustard arrivals among of all the markets of the district. A list of rapeseed and mustard growing villages was prepared with respect to the Bharatpur market. A list of rapeseed and mustard growing farmer's of these two selected villages was prepared. The farmer's were divided into three size group viz., small, medium and large based on their size of holding as small-less than 2 ha, medium- 2 to 4 ha and largemore than 4 ha. In each size group proportionate number of farmers in proportion of their number in village were selected at random, making a total of 60 cultivators in two selected villages. Both primary as well as secondary data were collected. The secondary data were collected on acreage, production, arrivals and price of rapeseed and mustard in state and districts.

Analytical tools :

Marketing costs :

Marketing cost of rapeseed and mustard at different sale point was worked out by the formula given as under:

Marketing $cost(MC) = \frac{TC}{TS}$

where, MC = per quintal marketing cost paid by farmers.TC = Total cost paid by farmers. TS = Total quantity sold by farmers.

Marketing channels :

The information collected from farmers, village traders and market traders, regarding disposal pattern and purchases was pooled together to identify the marketing channels prevailing in rapeseed and mustard trade.

Price spread :

Producer's share in consumer's rupee, It is the price received by the farmer expressed as a percentage of the retail price (*i.e.* the price paid by consumer) :

$$Ps = \frac{Pf}{Pe} \times 100 \text{ or } P = \frac{C - M}{C} \times 100$$

where, (P) Ps = Producer's share in consumer rupee Pf = price of the producer received by the farmer Pc = Price of produce paid by consumer(C) = Consumer's rupee (M) = Marketing cost.

Marketing margins of middleman :

Marketing margin covers all the expenses and profit of the marketing agencies. This is the difference between the total payments (cost + purchase price) and receipts (sale price) of the middleman (I).

Absolute margin of i^{th} middleman (Am.):

 $Am_i = Pr_i \cdot (Ppi + Cm_i)$

Percentage margin of i^{th} middleman (Pm_i) :

Pmi = Pri - (Pp1 + Cmi) I Pri × 100

where, Pri = Sale price, Ppi = Purchase price, Cmi = Cost incurred on marketing per unit.

Table 1: Marketable and marketed surplus of rapeseed and mustard on different size of farms			(Qtls/farm)	
Farm size	Total production	Marketable surplus	Marketed surplus	
Small				
Nagla Bagherra	16.93	16.20	15.80	
Vijay Nagar	13.07	12.49	13.24	
Average	15.00	14.34 (95.6)	14.52 (96.8)	
Medium				
Nagla Bagherra	36.06	33.48	34.32	
Vijay Nagar	40.00	39.11	38.66	
Average	38.03	36.29 (95.42)	36.49 (95.95)	
Large				
Nagla Bagherra	100.09	98.23	96.86	
Vijay Nagar	87.01	85.75	83.42	
Average	93.55 (100)	91.99 (98.33)	90.14(96.35)	
Nagla Bagherra	51.03 (100)	49.33 (96.67)	48.99 (96.00)	
Vijay Nagar	46.69 (100)	45.78 (98.05)	45.11 (96.61)	
Average	48.86 (100)	47.56 (97.34)	47.05 (96.29)	

Note: Figures in parentheses are the percentage of total

RESULTS AND DISCUSSION

The findings of the present study as well as relevant discussion have been presented under following heads :

Marketable and marketed surplus :

Marketable and marketed surplus in different size of farms and in selected villages is presented in Table 1. Overall per farm marketed surplus (47.05 q) was less than marketable surplus (47.56 q). It is also found in Nagla Bagherra village having 49.33 and 48.99 quintals per farm as marketable and marketed surplus, respectively. In Vijay Nagar village marketable surplus (45.78 q) and marketed surplus (45.11 q) which does not indicate the distress sale. Across the farm size groups, in small farms, average marketable surplus was 14.34 q and marketed surplus was 14.52 q. Thus there was distress sale present on small farms mostly to meet immediate cash needs and pay for short term loan obligation.

In the case of medium size group of farms, the average production of rapeseed and mustard was 38.03 q per farm. Marketable and marketed surplus were 36.29 and 36.49 q per farm, respectively. Thus there was forced sale also on medium farms which may be due to their loan obligation and cash needs. Production, marketable and marketed surplus were 93.55, 91.99 and 90.14 q per farm, respectively on large size group of farms, marketed surplus was less than marketable surplus. Thus, it may be concluded that overall, in Nagla Bagherra village distress and forced sale was not observed and also not in Vijay Nagar village. Across the farm, small size

Table 2 : Percentage of rapeseed and mustard moving in various marketing channels				
Channel No.	Agencies involved	Quantity in percentage		
1.	F VTC	0.47		
2.	FP	4.12		
3.	FW-IM	1.37		
4.	F VTW-IO	8.23		
5.	F VT P	9.46		
6.	FW-IW-IIP	16.18		
7.	FW-IW-IIO	16.18		
8.	FW-IM	8.09		
9.	FP	22.90		
10.	FW-IO	7.63		
11.	FP	5.34		
	Sub-total	100.00		
12.	MP	2.80		
13.	M WM	0.50		
14.	M WO	6.16		
	Sub-total	9.46		
	Grand total	109.46		

F = Farmer, VT = Village trader, P = Processor's, C = Consumer,

W-I = Wholesaler-I, W-II = Wholesaler-II, 0 = Outside Rajasthan, M = Other market of Rajasthan

groups forced sale of rapeseed and mustard was observed. Marketable surplus increased with the increase in farm size and production.

Marketing channels :

Marketing channels for rapeseed and mustard showed (Table 2) that farmers sold 23.65 per cent of their surplus to the village traders, 76.35 per cent to wholesalers; village traders sold 0.47 per cent to consumers, 13.72 per cent to the wholesaler-I and 9.46 per cent to the processors. Wholesaler-I disposal pattern indicated that they sold 2 per cent directly to consumers to use as seed in next year, 58 per cent to the primary wholesalers in the market and 40 per cent to the processors. Wholesaler-I sold 53 per cent to the wholesaler-II (Wholesaler-cum-commission agent), 30 per cent to the processors, and 10 per cent to the outside of state and 7 per cent to other markets of Rajasthan. The disposal pattern of wholesaler-II indicated that they sold 40 per cent to processors, 40 per cent to outside of Rajasthan and 20 per cent to other markets of state. Wholesalers and buyers in the market received from producer-sellers. Village traders and wholesaler's surplus entering the marketing channel as 100 units. It was estimated that 9.46 unit entered the channel at wholesalers level from other market of the state.

The analysis revealed that 14 marketing channels exists for rapeseed and mustard in the district. Among these three channels were found important through which about 55 per cent of total sale was moved. Maximum produce (about 23 %) moved through channel - IX (F-W-I-P) followed by channel-VI (F-W-I-W-II-P) and channel-VII (F-W-I-W-II-O), 16.18 per cent of total sale were moved in each channel, respectively. These channels and percentage quantities moving in each of them is shown in Table 2. Nearly 55.46 per cent of rapeseed and mustard reached to processors of the district. Net quantity going outside the state in trading channels was estimated as 28.74 (38.20 - 9.46) per cent, nearly 0.47 per cent went to consumer's of the district, about 14.80 per cent went to other market of the state. Out of the total 14 channels, village traders appeared in 5 channels, Primary wholesalers or wholesaler- cum-commission agent appeared in 12 channels and secondary wholesaler's appeared in 3 channels.

Marketing of Rapeseed and mustard in Bharatpur district : Channel-I: (Producer-Wholesaler-Processor) and Channel– II: (Producer - Village trader - Wholesaler-Processor):

The total costs incurred in marketing of rapeseed and mustard through channel-I came to be RS.138.03 per quintal. The share of producer was 90.26 per cent and margin of wholesaler-I was 2.58 per cent of processor's purchase price (Gupta and Singh, 1998). Table 3 show that marketing costs and margins incurred during marketing of rapeseed and mustard through channel-II. Total costs in marketing of

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Table 3 : Marketing costs and margins of Channel I and II				
Particulars	Channel-I		Channel-II % of processor's	
	Rs/qtl.	% of processor's purchase price	Rs/qtl.	purchase price
Producer selling price/ purchase price of wholesaler	1750.49	90.83	1750.49	90.80
Cost incurred by producer/ village trader				
Transportation	7.00	0.36	7.00	0.36
Labour charges	4.00	0.21	4.00	0.21
Total cost	11.00	0.57	11.00	0.57
Producer / village trader's net price			1739.49	90.26
Village trader's margin			29.49	1.53
Village trader's selling price/ wholesaler purchase price			1790.49	92.91
Cost incurred by wholesaler				
Gunny bag	25.00	1.30	25.00	1.30
Sales tax	34.79	1.80	34.78	1.80
Market fee	27.83	1.44	27.82	1.44
Bazar bharai	2.20	0.11	2.20	0.11
Commission	25.01	1.82	35.00	1.82
Total cost	124.83	6.48	124.83	6.48
Wholesaler's margin	49.68	2.58	20.71	1.07
Wholesaler's selling price	1925.00	99.88		
Cost incurred by processor's				
Bazar bharai	2.20	0.11	2.20	0.11
Total cost	138.03	7.16	138.00	7.16
Total margin			50.2	2.60
Processor's purchase price	1927.20	100.00	1927.20	100.00

rapeseed and mustard when it was sold through this channel comes to Rs.138.00 per quintal (7.16 per cent of the processor's purchase price), sales tax, market fee and commission charges were the three main component of costs. Out of total cost incurred in the marketing, village trader incurred Rs.11.00 (0.57%), wholesalers incurred Rs.124.80 (6.47%) and processor's incurred Rs.2.20 (0.11%) per quintal of processor's purchase price Rs.1927.20 per quintal. Producers directly sold to village traders at threshing floor. Village trader's margin was 1.53 per cent and wholesaler's margin Rs.1.07 per cent of the processor's purchased price. The share of producer's was 90.80 per cent of the processor's purchase price (Gupta and Singh, 1998).

Price spread :

Price spread in rapeseed and mustard marketing through different channels revealed in Table 4. Producer's share in consumer's rupee was 90.35 per cent in channel-I (Pandey and Kandulna, 2000) and remaining 7.16 and 2.58 per cent were costs and margins. The margin of wholesaler was 2.58 per cent of consumer's rupee. In channel-II, producer got 90.23 per cent of consumer's rupee (Sridhar *et al.*, 1988). The marketing costs and margins were 7.16 and 2.60 per cent, respectively. The margins shared by village trader and

wholesaler-I were 1.53 and 1.07 per cent, respectively of the consumer's rupee. Thus, in all the two identified channels, producers got nearly 90 per cent of the price paid by the consumer's rupee (Panghal and Luhach, 1995). Marketing

Table 4 : Price spread in rapeseed and mustard marketing through different channels					
	Channel-I	Channel-II			
Producer's net price	1739.49 (90.35)	1739.00 (90.23)			
Cost incurred by					
Producer	11.00 (0.57)	-			
Village trader	-	11.00 (0.57)			
Wholesaler	124.83 (6.48)	124.80 (6.47)			
Processor	2.20 (0.11)	2.20 (0.11)			
Total marketing costs	138.03 (7.16)	138.00 (7.16)			
Margins of					
Village trader	-	29.49 (1.53)			
Wholesaler	49.68 (2.58)	20.71 (1.07)			
Total margin	49.68 (2.58)	50.2 (2.60)			
Producer's selling price	1750.49 (90.83)	1750.00 (90.80)			
Village trader selling price	-	1790.49 (92.91)			
Wholesaler selling price	1925.00(99.88)	1925.00 (99.88)			
Processor's purchase price	1927.20 (100)	1927.20 (100)			

costs ranged between 8.95 to 10.34 per cent of the consumer's rupee. Thus, it can be inferred that producer's share in consumer's rupee did not vary significantly.

The overview of the results presented in this paper revealed that the wholesaler-I earned margin of 2.58 to 1.07 per cent, village traders 1.53 per cent of the consumer's rupee in different channels. Producer's share in consumer's rupee was around 90 per cent in all the two channels. There was no significant difference in the price received by the producerseller's in absolute as well as in percentage terms in different channels of marketing.

Summary and conclusion :

Rapeseed and mustard occupies a prominent place being next in important to groundnut both in area and production. The cultivation and production of rapeseed and mustard in India has gone up with impressive rate. The study was carried out in Bharatpur district of Rajasthan. Bharatpur district is one of the important rapeseed-mustard producing district in the state. Bharatpur was selected on the basis of highest rapeseed and mustard arrivals. Rapeseed-mustard growing villages was prepared with respect to the Bharatpur market and two selected villages was prepared. Farmer's were categorized into three size group viz., small, medium and large and making a total of 60 farmers in two selected villages. Both primary as well as secondary data were collected. The average production per farm was 26.23 quintals; size group wise per farm production in the district was 15.00, 38.03 and 93.50 quintals for small, medium and large size of group of farms, respectively. The average quantity sold by producer-seller's was 23.49 quintals per farm. Farm size wise quantity sold per farm was 12.28, 33.93 and 88.62 quintals by small, medium and large size group of farms, respectively. Production and sold per farm both in absolute and percentage term increase with

increase in farm size. Per farm marketed surplus (47.05 q) was less than marketable surplus (47.56 q). It is also true in Nagla-Bagherra village having 49.33 and 48.99 q per farm as marketable and marketed surplus, respectively. Price spread ranged between Rs. 138.03 (7.16%) to Rs. 138.00 (7.16%) per q of processor's purchase price in the two channels. Producer's share in the consumer's rupee was around 90 per cent in two channels of marketing. There was no significant difference in the price received by the producer-sellers in absolute as well as in percentage terms in different channels of marketing.

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