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INTER COMPARISON AT MARKETING COST OF MUSTARD CULTIVATION IN MEERUT DISTRICT OF WESTERN UTTAR PRADESH, INDIA

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ABSTRACT

An attempt has been made in this study to examine the economic analysis of production of rapeseed mustard in Meerut District of Uttar Pradesh, India. Primary data was collected from 100 rapeseed-mustard growers of Meerut District from two blocks. In this study five-five villages selected from each block through simple random sampling without replacement Technique. Based on data block wise percentage area under mustard to the corresponding total crop area of the block was calculating & these blocks were arranged in descending order. This is to be attributed to the development of high yielding varieties coupled with improved production technologies, their widespread adoption and good support price. In spite of these achievements, there exist a gap between production potential and actual realization. The gap is to be bridged or narrowed down to feed the ever growing human and livestock population with minimal nutritional requirements, to meet the requirements of industries and to earn valuable foreign exchange through export of seed meal, oil and value-added products. Therefore, it is suggested that the improved variety of seeds and technology along with proper package and practices should be targeted in these areas to increase the supply. There is a need to step up investment in agricultural research, education, extension to reach among unreached section of society emphasizing quality of production and value addition. The outreach of most modern crop production technology may be facilitated up to the last frame.

Keywords : Marketing cost, Marketing channel, Price spread.

Introduction

The agriculture sector plays a very important role in India's social security and overall economic welfare. Oilseed crops are India's second largest agricultural commodity after cereal crops, accounting for around 13.0 per cent of gross cultivated area and 11.0 per cent of total agricultural economy. This crop is a significant source of income for small and marginal farmers, particularly in rainfed areas of the country (Sangwan *et al.*, 2021) Due to a big initiative taken by the Government of India and excellent climatic circumstances, the country produced the maximum output of 365.65 lakh tones oilseeds grains during 2020-21, with a productivity level of 1269 kg/ha from an area of 288.18 lakh ha (Anon, 2020-21). Rapeseed and mustard contributed roughly one-third of the country's edible oil among the nine primary oilseed crops (Langadi *et al.*, 2021). Rapeseed mustard in India consist eight different species. In which, toria (*Brassica rapa* L. var. toria), brown sarson (*Brassica rapa* L. brown sarson), yellow sarson (*Brassica rapa* L. yellow sarson), gobhi sarson (*Brassica napus* L. ssp. Oleifera DC var. annua L.) and taramira (*Eruca sativa lvesicaria* Mill.) are together termed as rapeseed; and Indian mustard (*Brassica juncea* (L.) czern. & cross.); black mustard (*Brassica nigra* [L.] Koch) and Ethiopian mustard or karan

rai (*Brassica rinata* A. Braun) are collectively called mustard. In India's Rabi season, the two main oilseed crops are rapeseed and mustard, both of which are crucial to the country's food and nutritional security. India mustard is a significant oilseed crop, accounting for more than 80% of the country's total production of rapeseed mustard (Meena *et al.*, 2014; Meena *et al.*, 2015). The largest production of rapeseed and mustard was also reported in India, with 91.23 lakh tonnes produced from 68.56 lakh ha, and the average productivity was 1331 kg/ha. Rajasthan (44.9%), Haryana (12.4%), Madhya Pradesh (11.3%), Uttar Pradesh (10.60%) and West Bengal (7.53%) are the top rapeseed-mustard producing states in India. Gujrat has the highest yield (1932 kg/ha) among the major oilseed producing states in India, followed by Haryana (1793 kg/ha), Madhya Pradesh (1538 kg/ha), Rajasthan (1366 kg/ha), and Tamil Nadu (233 kg/ha).

In India mustard is mainly grown in North West part of India, Rajasthan, and U.P. are the major mustard producing state in the country. Rajasthan is the largest mustard producer in the country with a contribution of (46.43) to the country's total mustard production followed by Madhya Pradesh (14.36) and Haryana contributes (11.63%) (Economic survey report 2021-22)

In India, area under mustard was 6.70 million hectares and its production was 10.21 million tonnes with productivity 1524 kg/ha in 2020-21 (Directorate of Economics and statistics, New Delhi). While area, production and productivity in U.P. were 0.70 million hectare, 1.01 million tonnes and 1438 Kg /ha respectively. (2020-21 Directorate of Economics and statistics, New Delhi). Area, production and productivity of Rapeseed & Mustard in Meerut District was 6085 hectare, 8438 million tonnes and 1387 kg/ha respectively (2021-22).

Materials and Methods

Keeping in view the objective of the study, Meerut district of western Uttar Pradesh was purposively selected. Block wise data on the area under mustard and the total cropped area were obtaining from secondary sources. Based on data block wise percentage area under mustard to the corresponding total crop area of the block was calculating & these blocks were arranged in descending order. The two blocks with maximum percentage area under mustard were selected. For each selected block, percentage area under mustard to the corresponding total cropped area was worked out for each of the villages of the block & the ten villages having maximum concentration of relative area under mustard were selected from each of the selected two block. A separate list of villages for each selected block was prepared and five villages from each block were selected randomly. Thus, 10 villages were selected for the study.

For each selected randomly of village, a separate list of mustard growing farmers was prepared and these farmers was regarded in to marginal (below 1ha.), small (1-2 ha), medium (2-4 ha), and large (4 ha & above) size group of farms. From each selected randomly of villages, 100 farmers were randomly selected. The allocation of these 100 selected farms of a selected randomly of villages in to marginal, small, medium, and large farms was based on the proportion of the mustard growing farms under each size groups to the total mustard growing farms. Simple tabular analysis was applied to work out the cost of cultivation. The primary data were collected by survey method through personal interview on well structured and pre tested schedule, while secondary data were collected from books, journals, report and records of the district and block headquarters.

Both tabular and functional analyses were used. Weighted Average was worked out for interpretation of data with the help of following formula.

$$\text{Weighted average} = \frac{\sum W_i X_i}{\sum W_i}$$

Where,

X_i = variable

W_i =Weights of variable

Result and Discussion

Market functionaries or an institution disposes the commodities from the producers to consumer in whom cost was involved in every function or service. The intermediaries or middlemen make some profit to remain in the trade after meeting the cost of the function performed by them. Improve marketing of agricultural commodities, difference between the price paid by the consumer and price received by the producer for an equivalent quantity formed price spread.

The cost involved in moving the produce from the point of production to point of consumption i.e., the cost of performing the various marketing function and operating various agencies, and profit of the various market functionaries involved in moving in the produce from the initial point of production till it reaches the ultimate consumers. The absolute value of the marketing margin varies from channel to channel. Market to market, time to time and degree of quality of produce. The studies on marketing cost are important because they reveal many factors of marketing and the price structure, as well as, the efficiency of the system. The magnitude of the marketing margin relative to the price of the products indicates the efficiency otherwise of the marketing system. It refers to the efficiency of the intermediaries between the producer and consumer in respect of the service rendered and the marketing system by means of marketing margins over through various service functions is taken into account.

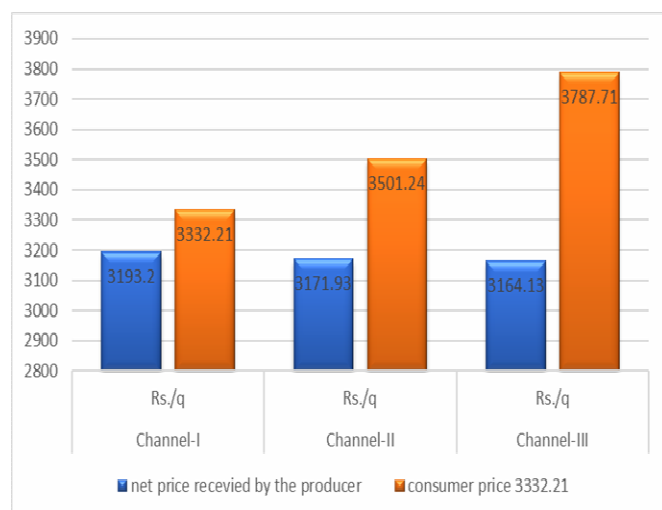
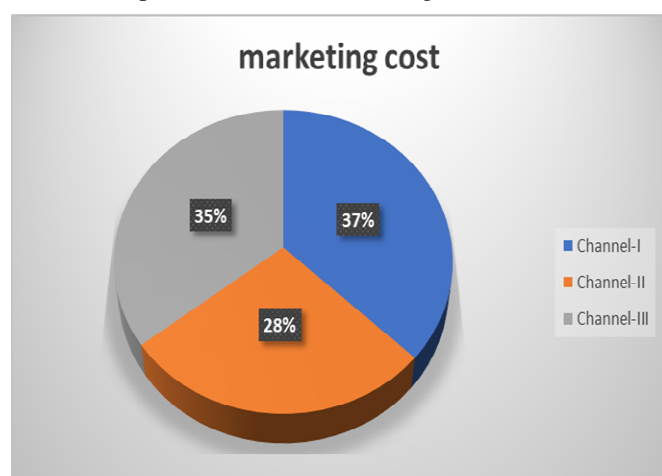
Such studies help in estimating the total cost incurred on the marketing process in relation to the price received by the producer and price paid by the consumer. The costs incurred by each agency in different channels and the share of each agency in total cost have been revealed. This knowledge ultimately helps us to identify the reasons for high marketing cost and possible way of reducing them. The knowledge of marketing cost and margins helps us to formulate and implement appropriate price and marketing policies.

Moreover, study of marketing costs and margins can be utilized to develop appropriate price policies for the farm products, to fix marketing of the producer to consumer with lowest cost and minimum economic waste consistent with the provision of services of consumer's desire, the marketing system can be said to be efficient. In order to increase operational efficiency and to rationalize the margins and reduce the, the understanding of the marketing margins, cost and price spread is essential. The study may also be helpful in judging and rationalize the marketing efficiency of marketing system therefore this study examines marketing margins and cost for mustard farm in different channels. There are following identified marketing channels through which the farmers sell their produce. These channels are as follows.

1. Producer – consumer
2. Producer – Retailer – Consumer
3. Producer –Wholesaler – Retailer - consumer

Table 1: Inter comparison of different marketing channel for mustard.

| Sr. No. | Name of functionary | Channel-I | | Channel-II | | Channel-III | |
|---------|--|-----------|-------------------------------------|------------|-------------------------------------|-------------|-------------------------------------|
| | | Rs. /Q | Producer & share in consumer rupees | Rs. /Q | Producer & share in consumer rupees | Rs. /Q | Producer & share in consumer rupees |
| 1 | Net price received by producer | 3193.20 | 95.82 | 3171.93 | 90.59 | 3164.13 | 83.54 |
| 2 | Marketing cost incurred by the producer | 139.11 | 4.18 | 103.45 | 2.95 | 133.25 | 3.51 |
| 3 | Producer sale price/wholesaler purchase price | - | - | - | - | 3297.38 | 87.04 |
| 4 | Marketing cost incurred by the wholesaler | - | - | - | - | 164.77 | 4.35 |
| 5 | Wholesaler net margin | - | - | - | - | 114.01 | 3.00 |
| 6 | Wholesaler sale price/ retailer purchase price | - | - | 3275.44 | 93.54 | 3576.16 | 94.39 |
| 7 | Marketing cost incurred by the retailer | - | - | 111.97 | 3.19 | 104.97 | 2.76 |
| 8 | Retailer margin | - | - | 113.83 | 3.27 | 127.21 | 3.35 |
| 9 | Total marketing cost | 139.11 | 4.18 | 329.25 | 9.41 | 623.58 | 16.46 |
| 10 | Retailer price/ consumer price | 3332.31 | 100 | 3501.24 | 100 | 3787.71 | 100 |

**Fig. 1 :** Net price received by the producer and consumer price of different marketing channels.**Fig. 2 :** Marketing cost of different marketing channels.

Inter channel comparison of price spread, marketing cost and margin of retailer and wholesaler Sardhana market of Meerut is displayed in table-1.1. Inter channel comparison reveals that the gross price and net price received by the

producer was maximum in channel-I (Producer- Consumer) followed by channel-II (Producer- Retailer-Consumer) and channel III.

Marketing cost incurred by the producer went up with the increase in the intermediary functionaries in comparison of channel-II and channel III. In respect to the absolute and relative share of retailers purchase price, retailers marketing cost and retailers market margin revealed that marketing cost incurred by the retailer and his marketing margin was higher in channel-III compared to channel-II.

The marketing cost incurred by the producer seller went up as the number of intermediaries increase the inverse relation/tendency was observed.

Conclusion

The study revealed three major mustard marketing channels viz, producer to consumer, producer -retailer-consumer, and producer -wholesaler-retailer-consumer. The marketing cost of channel III was the highest. Retailer margin was highest in the marketing channel III compared to marketing channel II. Mustard grower farmers were realizing higher share of consumer's rupee in channel I as compare to other marketing channels

Conflict of Interest

The authors have no conflict of interest

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