



## **Marketing Channel of Menthol Mint (Mentha) in Sitapur district, Uttar Pradesh**

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### **ABSTRACT**

*The present study has been conducted in order to access the marketing of menthol in the state of Uttar Pradesh, India. Multi-stage sampling technique was used to select blocks, villages and the respondents from the four villages of two blocks in Sitapur district. A pooled list of all mentha growers was prepared for all selected villages and a sample of 60 farmers was obtained using probability proportion to size method. Two distribution channels were identified. The marketing of menthol is dominated by processor (Channel-1). Around 73 per cent produce was marketed through channel I. Marketing cost varied from Rs. 156 per kg in channel 1 to Rs. 162 per kg in channel II. A component of the marketing cost of the producer was cost incurred on distillation and processing of menthol. Producers' share in consumer rupee is high i.e. 87.30 per cent in channel 1 while it was 83.10 per cent in channel II respectively. Even though the mentha cultivation is profitable, there are lot of lacuna in marketing of mentha oil like lack of awareness about export market and existence of intermediaries between farmers and processors/industries. Hence, there is immediate need to organize marketing of menthol through cooperative lines in the study area.*

**Key words:** Menthol mint, Mentha, Marketing efficiency, Marketing margins, Price spread.

Received 11.12.2018

Revised 04.01.2019

Accepted 07.01.2019

### **INTRODUCTION**

India is considered to be the ancient home of perfumes and aromatic plants because it is blessed with a wide variety of soil and climatic conditions which support the enormous plant wealth. Medicinal and aromatic plants (MAPs) are receiving considerable attention all over the world because of their vast untapped economic potential, especially in the use of herbal medicines. Amongst the Aromatic crops, mentha is important crop as India is the largest producer, consumer as well as exporter of mentha with a production of 32,000 tons of oil and export around 14,450 tons of menthe and its products annually mainly to Argentina, Brazil, France, Germany, Japan, UK, USA [1-9]. His large scale commercial cultivation of mentha is done in Indo-Gangetic plains i.e. in the states of Uttar Pradesh, Punjab, Haryana and Bihar. 95% of the crop is grown in Uttar Pradesh and rest 5% in other states. U.P. is the leading mentha producing state in terms of area and production under mentha cultivation with 1.30 lakh hectare acreage and annual production of 20,000-22,000 tons of oil [10-11]. In U.P., major menthe producing districts are Barabanki, Rampur, Moradabad, Bijnor, Badaun, Pilibhit, Bareilly, Luknow, Sitapur, Shahjahanpur, Hardoi, Unnao, Faizabad, Badaun, a belt well known for Mint growing area in the world.

The development of the food and flavor industry across the globe brought a need for greater quantities of Natural Menthol and Peppermint Oil which gave "Mentha" tremendous opportunities to develop a direct commercial relationship with some of the major consumers of Menthol in India as well as in the International Market and since then we never looked back and leading the market with its unmatched quality products. This scenario has made "Mentha" one of the fastest growing mint producers with largest capacity to manufacture Mint Products. In lieu to find out the marketing of menthol mint (mentha) the following objectives have been worked out i.e. (a) To identify the major channels involved in the marketing of menthol. (b) To compute marketing costs, margins, price spread and efficiency of marketing channels in menthol cultivation. And (c) To works out the marketing efficiency of menthol mint.

## MATERIAL AND METHODS

The study was conducted in the Sitapur district, one of the most important districts in terms of area and production of mentha. From the district, two development blocks were selected purposively on the basis of highest area under mentha crop. Two villages each were selected from each selected block, randomly. A pooled list of all mentha growers was prepared for all selected villages. Then the farmers were classified into small (2-5 acres), medium (5-10 acres) and large (above 10 acres) size groups on the basis of size of their operational land holding. A sample of 60 mentha growers was obtained from the selected villages using probability proportion to size method, with a restriction that a minimum of 15 farmers represent each size group.

The present study was mainly based on primary data. The required primary data were collected from selected farmers for the agricultural year 2015-16. The requisite secondary data were collected from various published records of government offices, block development offices, reports, and other related sources.

The marketing channel will be identified through interview method, on the basis of actual disposable pattern through which mentha is moved from its producer to consumer. The ultimate end i.e. consumer the consumers doesn't consume menthol directly in any usage. Mentha farmers sell their produce directly to industry/company or processors.

**Total cost** of marketing will be worked out by summing up the cost incurred by producer and middle man on different marketing function.

$$\text{Marketing cost (C)} = C_F + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mi}$$

Where,

**C** is total cost of marketing of the commodity.

**C<sub>F</sub>** is Cost paid by the producer from time the leaves the farm till he sells.

**C<sub>m1</sub>** is Cost incurred by the *i*<sup>th</sup> middlemen in the process of buying and selling the product.

Similarly, Producers share in consumer's rupee can be worked out as percentage of price received by producer to the price paid by the consumer.

$$P_s = (P_F/P_R) \times 100 \text{ where } P_F = P_A - C_F$$

Where,

**P<sub>s</sub>** is Producers share in Consumers rupee.

**P<sub>F</sub>** is Producers Price

**P<sub>R</sub>** is Retail Price

**P<sub>A</sub>** is Wholesale Price

**C<sub>F</sub>** is Marketing cost incurred by growers.

$$\text{Absolute margin of } i^{\text{th}} \text{ middlemen (A}_{mi}\text{): } A_{mi} = P_{Ri} - (P_{pi} - C_{mi})$$

Where,

**P<sub>Ri</sub>** = Total value of receipts per unit (sale price)

**P<sub>pi</sub>** = Purchase value of goods per unit (purchase price)

**C<sub>mi</sub>** = Cost incurred on marketing per unit.

- Accordingly, Price spread will be tabulated for marketing channel.
- Acharya approach will be used work out to measure the Marketing Efficiency.

$$\text{MME} = [RP / (MC + MM)] - 1,$$

$$RP = FP + MC + MM$$

Where,

**MME** is the modified measure of marketing efficiency.

**RP** is Price paid by consumer,

**MC** is Total marketing cost,

**MM** is Net marketing margin,

**FP** is Price received by growers

## RESULTS AND DISCUSSION

### Marketing system and channels

Two channels for marketing of menthol were identified in the study area. The marketing of menthol is dominated by processor (Channel-I). Around 73 per cent produce was marketed through channel I. In channel II, 27 per cent producers sold their produce directly to nearby local traders. These channels were preferred by producers because no marketing cost was born by producers.

**Table 1 : Prevalent menthol marketing channels at Uttar Pradesh:**

Channel Number	Marketing Channel
Channel I	Producer-Processor-Industry/Company
Channel II	Producer-Local Trader-Industry/Company

**Marketing costs, margins and efficiency**

The marketing cost incurred by producers found to be Rs. 162 per kg in channel II followed by Rs. 156 per kg in Channel I. The high cost of good quality distillation machine and the high distillation charge incurred by farmers was the most severe constraint faced by farmers resulting in high cost of marketing. The gross price received by farmers was Rs. 1142 per kg in channel-I but slightly lower in Channel II. The cost incurred by the farmers was also higher in channel II. Therefore, the producer's net price was less in channel II. The marketing cost in channel II was higher due to involvement of more intermediary and processing cost.

**Table 2: Marketing Cost, marketing margin, price spread and marketing efficiency under different channels, (Primary data)**

S.No.	PARTICULARS	SITAPUR DISTRICT	
		CHANNEL-I	CHANNEL-II
1.	Gross price received by farmer (Rs. Per Kg.)	1142.10	1065.20
2.	Cost incurred by farmers (Rs. Per Kg)	748.12	782.03
3.	Producers net price (Rs. Per Kg) (Item No. 1 - Item No. 2)	393.98	283.17
4.	Marketing cost incurred by Farmers (Rs. Per Kg.)	156.00	162.00
5.	Industry/company price (Rs. Per Kg.)	1308.00	1283.00
6.	Price Spread in different format (Rs. / Kg.)	166.00	218.00
7.	Total gross marketing margin (Rs. Per Kg.) (Item No. 2 + No. 4 + No. 6)	1070.00	1162.00
8.	Marketing Margin as % of industry price (Item No. 5 over Item No. 7)	1.22	1.10
9.	Producer's share in industry rupee (% of producer net price to industry price) ; $Ps=(Pp/Pe) \times 100$	87.30	83.10
10.	Marketing efficiency (Item No. 1 over Item No. 7)	1.07	0.92

The other reasons which contribute to high marketing cost were malpractices at market place, high transportation charges, high storage cost. From the perusal of Table 2 it was also seen through that Producer's share in consumer rupee is high i.e. 87.30 per cent in channel I while it was 83.10 per cent in channel II respectively. Menthol is not directly consumed by consumers and sold to industry instead. Therefore, computation of producer's share in industry price is been calculated. The difference between farm gate price and industry price is very high. The price spread was found to be Rs. 166 per kg in channel II. It is evident from table that channel I was the most efficient marketing channel with efficiency of 1.07 followed by channel II with efficiency of 0.91. Therefore, it is concluded that Producer-Processor-Industry/Company (Channel-I) is performing better than other intermediaries or channels.

It is real anxiety to policy makers recently as honorable Prime Minister, Narendra Modi has expressed his views to reduce the price spread of agricultural commodities. From the perusal of table 1 it is seen that the market margin of industry price was found to be higher with the margin 1.22% in channel I followed by channel II i.e. 1.10%.

**CONCLUSION**

The favorable climatic condition of Sitapur in general offers vast potential for the development of medicinal and aromatic crops, including mentha. But there is a need to tap this potential so that production will be increased and mentha growers will be benefitted. Production and marketing constraints are discouraging the producers to boost their production. The producers are facing hefty problems in producing their produce. The major constraints in the study area were related to distillation unit, transportation, high processing cost and thus there is a need for an agency by government to help the mentha growers to solve their mentioned related queries.

Even though the mentha cultivation is profitable, there are lot of lacuna in marketing of mentha oil like lack of awareness about export market and existence of intermediaries between farmers and processors/industries. Hence, there is immediate need to organize marketing of menthol through cooperative lines in the study area.

## REFERENCES

1. Bradu, B.L., Sood R.P., Kalia, N.K. and Singh, Vir, (1977). Experimental cultivation of mentha citrate at Palampur (H.P.) and physio-chemical examination of its oil. *Indian perfumer*, **21(2)**: 69-72.
2. Chauhan, H.S. Singh, K. and Patra, D.D., (1997). Performance of Aromatic Plants in Eucalyptus based Agroforestry system. *Journal of Medicinal and Aromatic plant sciences*, **19(3)**: 724-728.
3. Choudhary, S.N., Shahi, A.K. and Singh, A., (1979). Harvest Quality Management Practices and Oil Mentha Citrata at Jammu. *Indian Perfumer*, **23(2)**: 103-6.
4. Dubey, U.S., (1985). Economics of Mentha based Crop Rotations, *M.Sc. Ag., deptt. of Agril. Economics*, G.B.P.U. A & T, Pantnagar, Uttarakhand.
5. Economic Survey (2013-14) Economic Division, Department of Economic Affairs, Ministry of Finance, Govt. of India.
6. Gulati, B.C. and Duhan, S.P.S., (1971). Japanese Mint in Nainital Tarai of U.P. Part-1<sup>st</sup> *Indian perfumer*, **15(2)**: 1-4.
7. Gupta, B.K., (1983). Comparative cost returns analysis of mentha, sugarcane and mentha-sugarcane mixed cropping in Moradabad region. *M.Sc. Ag. Deptt. of Agril. Economics*, G.B.P.U.A.&T, Pantnagar, Uttarakhand.
8. Harshika Choudhary, P.S. Badal, Virendra Singh, and Rajani Osti, (2017). Economics of Menthol Mint Cultivation in India: Shifting from Traditional Farming to Income Based Farming. *Indian Journal of Economics and Development*. **13(2a)**: 232-236.
9. Harshika Choudhary, Virendra Singh, P.S. Badal, and Parmeshwara Kushwaha, (2016). Infrastructural and institutional Categories of menthol mint cultivation in India. *Progressive Research – An International Journal*. **11** (Special-II): 1170-1172 (2016).
10. Randev A.K., (2005). Marketing of Apple in Shimla district of Himachal Pradesh-India. *India Journal of Agricultural Marketing*, **19(3)**: 13-16.
11. Verma, R.K., Chauhan, A., Verma, R.S., Rahman, L.U. and Bisht, A., (2008). Improving Production Potential and Resources Use Efficiency of Peppermint (*Mentha piperita L.*) intercropped with Geranium (*Pelargonium graveolens L. Herit ex Ait*) under different Plant Density. *Industrial Crops and Products*, **44(4)**: 577-582.

## CITATION OF THIS ARTICLE

Pukhraj Singh, Lalit Kr. Verma, Nitin Kr. Nag, Rashmi Nigam and Joginder Singh. Marketing Channel of Menthol Mint (Mentha) in Sitapur district, Uttar Pradesh. *Bull. Env. Pharmacol. Life Sci.*, Vol 8 [3] February 2019: 30-34