# Study on Problems and Prospects in Marketing of Mint Oil in Moradabad District of Uttar Pradesh

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Medicinal and aromatic plants constitute a major part of the flora, which provides raw materials for use in the pharmaceuticals, cosmetics, and drug industries. Even in many of the modern medicines, the basic composition is derived from medicinal plants and these have become acceptable medicines for many reasons. India and China are the two major producing countries, constituting 40 per cent of the global medicinal and aromatic species. Mints are an aromatic perennial herbs belonging to the family *Laminaceae* are among the most important essential oil bearing plants in the world. Oil of mint, are probably third most important flavouring materials used world over. In India at present peppermint is cultivated in Western Uttar Pradesh (Tarai Belt), Jammu Kashmir, Madhya Pradesh and Punjab States with annual production of 20000-22000 tons of oil. Uttar Pradesh is a leading state in terms of production and area , hence it was decided to conduct study in this state.

## **Objectives of the study:**

Present study has been planned with the following objectives to know the ground realities and constraints involve in marketing of mint oil.

- 1. To study the pattern and channels of marketing of mint oils,
- 2. To study the major problems faced by the growers, processors, distillers and traders
- 3. To study the seasonal price fluctuations in mint oil market,
- 4. To study the economic feasibility of mint oil processing,
- 5. To suggest the policy implications for betterment of marketing of mint oil.

The important mints producing regions in Uttar Pradesh are Moradabad, Barabanki, Budaun, Bareilly and Rampur. In Moradabad district, major concentration of mint cultivation is in four tehsils viz., Sambhal, Chandausi, Moradabad and Bilari. Major quantity of produce is traded from that area. Hence, these four tehsils were purposely selected for the study to obtain equal proportion and representation of data from the district. An appropriate size of the sample from each village has been decided on the basis of total number of cultivators. The respondents were interviewed through personal interview method to get the information about mint and related aspects by well-structured schedule.

The socio-economic characteristics of sample respondents were analyzed and it was found that, of the total selected farmers, major proportion of them belonged to marginal and medium categories (about 36%) followed by small category (25.80%) and large category constituted only 1.70 per cent. Average annual income was the highest in the case of large farmers followed by medium, small and marginal categories of farmers. The education level of the respondents revealed that, most of them were illiterate among marginal category of farmers followed by medium, small and large categories of farmers. The general trend noticed in the composition of the family was that, the proportion of working population (aged between 14 years and 60 years) was the highest. Farm-size wise land holding pattern reveals that average operational area of marginal farmers was 0.54 ha, small farmers 1.36 ha, medium farmers 3.85 ha and large farmers have 19.94 ha area with them. Cropping pattern of the selected farmers reveals that, of the total cultivated area, farmers mainly cultivated Mentha followed by Wheat, Rice and Sugarcane.

The inputs use pattern and cost involved in the cultivation of mentha in the study area revealed that about 12 to 14 numbers of irrigations are required for cultivation of Mentha. On an average, farmers in the study area used around 372 kgs of seeds per hectare. Average yield of mentha realized was the highest among large farmers (71.30 Kgs./ha) followed by medium (70.70 kgs/ha), Marginal (69.4 kgs/ha) and small (68.70 kgs/ha).

Cost of cultivation of mentha revealed that, on an average, farmers in the study area incurred, Rs.18709 per ha of cost in growing mint. The details of cost involved in the distillation of mentha oil by farmers were also analyzed and it was revealed that, small units of mentha distillation large farmers did not go for hired distillation as all of them had their own distillation unit. The distillation cost

incurred per kg of mentha oil was around Rs.58/- on overall basis. It was around Rs.43/- per kg for marginal and small farmers and a little higher cost was incurred by medium farmers (Rs. 46/kg).

Marketing cost incurred by farmers in marketing of mint oil in the study area was worked out and results showed that, total marketing cost incurred on overall basis amounted to Rs. 2.51 per kg of mint oil. However, across categories, there was a glaring difference in the marketing cost.

Month-wise sale of mint oil by the farmers in the study area revealed that, sale of mint oil is spread in six months with different magnitudes. The first cutting of the mentha normally takes place in the first week of May which takes around 120 days to mature after planting and it is subjected to distillation immediately. The second cutting takes place during last week of July, which takes about 90 days to mature after first cutting.

On an average, each mentha processor processed 3.54 lakh kg of raw material valued at Rs. 2265.69 lakhs. The average purchasing price of the raw material was Rs. 640.27 per kg. The total cost of processing amounted to Rs. 23.43 per kg of which, major proportion of cost was incurred on taxes (Rs.13.20/kg), followed by processing cost (Rs. 5.65/kg) and marketing cost (Rs. 4.58/kg). The oil (final product) processed was sold at Rs.744.50/kg and net returns realized amounted to Rs. 721.07 per kg. The financial parameter BC ratio revealed that, processors earned Rs.1.12: 1.

Marketing cost of traders amounted to Rs.13.19 per kg and taxes paid amounted to Rs.12.10 per kg. Rest of the items required negligible amount. The total cost amounted to Rs. 26.38 per kg. The volume of Mentha oil traded was 93560 kg per trader and thus the volume of trade was sufficient enough for achieving economies of sale.

The Marketing Channels identified in the study area were

Channel-I: Producers-Local Trader-Processor

Channel-II: Producer-Commission Agent-Processors

Channel-III: Producer-Wholesaler-Processors

Channel-IV: Producer- Processors

Marketing margin analysis showed that, when farmer sold through local trader and commission agents, the margin in consumer rupee realized was around 71 per cent. It was little higher, when sold through wholesaler. It is interesting to note that, the net price received by the farmer was high when sold through commission agent (Rs. 474.16/kg) as against local traders (Rs. 460.96). The marketing margin/price spread was the highest in the case of Channel-II (Rs.196.36/kg) followed by Channel-I (Rs.185.65/kg) and Channel-III (Rs.166.00/kg). Channel-IV in marketing of mentha oil gives the highest net price to the farmers. Because, farmers directly sell their produce to processors and in doing so no intermediary is involved.

An analysis of as to why farmers go for mentha cultivation showed that, across study area, about 80 per cent of the farmers said high income realizes from mentha cultivation was the main reason to go for it. Suitability of season was expressed by 38 per cent of the farmers and 43 per cent of the farmers opined that, only alternate for the season.

Mentha is one of the major crops of choice in the study area several problems were faced by the growers while cultivating mentha. About 95 per cent of the farmers in the study area expressed that; they are not getting required technical guidance. Almost all the large farmers feel this problem very intensive. Improper storage arrangements were expressed by about 82 per cent of the farmers in the study area. Corruption in trading was expressed by 81 per cent in the overall study area.

Several suggestions were given by the farmers, which were genuine from the viewpoint of problems faced by them. Provision of improved variety was suggested by about 70 per cent of the farmers and mainly this was suggested by small and marginal farmers. Farmers are growing kosi and shivalik variety since 25 years, they felt that, quality and yield of oil is in the declining state due to continuous cultivation of same variety of mentha. Hence, improved and high yielding varieties of the mentha are required to replace old varieties.

#### **Policy Implications**

 In view of reduction yield due to mono-cultivation, technical guidance to the farmers on improving the yield of the mentha crop is the need of the hour. For this purpose extension agency of the State Department of agriculture has to create awareness among farmers either to change the variety or to go for crop rotations so that the yields will improve

- 2. There are several traders who are operating since many years and have their own network to indulge in cartailing and thereby giving low price to the farmers. Thus there is a need to induce modern marketing system wherein farmers can come together in-group to enhance their bargaining power so that farmers can fetch better price realization. Marketing Board/Marketing department of the state can induce this phenomenon.
- 3. The low price problem can also be solved by announcing the minimum support price well in advance of harvesting season to the mentha raw material as well as mentha oil by the Commission on Cost and Price (CACP). This measure will overcome the problem of crash in the price during harvesting season.
- 4. It is known fact that, there is a Medicinal Plants Board to look after affairs of medicinal crops in the country. This Board mainly operates to promote cultivation, processing, extension and marketing of medicinal plant only. Hence it is recommended that, the Board can also cover the aromatic plants or a separate Board for aromatic plants can be setup to look after problems faced by essential oil industry.
- 5. Pricing for mentha oil is not based on the quality and it is decided on crude method by the processor and trader at farmers field level. Hence there is a need to arrange quality-testing laboratory to overcome this problem so that, price discovery would be based on the quality parameters.
- 6. Marketing margin analysis revealed that, farmers are getting lesser margin for their produce. Hence, state marketing agency is required to arrange direct procurement by the processors by minimizing the intermediaries and thereby increasing share of producer in consumer rupee.
- 7. Most of the farmers are under the clutches of financial obligation of the traders and are compelled to sell their produce at the price quoted by the traders. Public sector financial institutions can extend the credit to the farmers in the study area by fixing appropriate scale of finance to overcome this problem.
- 8. There is a lack of modern and efficient processing technology in the study area. Hence, State government is required to create modern processing facilities to realize quality mentha oil and thereby giving best price to the producer of mentha crop.