Agri Express: **03** (03), *Article No.* V03I03.04, July - September, **2025** *E - ISSN No. 2584 – 2498*

6.611 Impact Factor

MARKETING OF MENTHA PIPERITA IN BARABANKI DISTRICT UTTAR PRADESH

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https://doie.org/10.10346/AE.2025704329

ABSTRACT

The study analyses the socio-economic profile of Mentha piperita farmers in Barabanki district, Uttar Pradesh, and evaluates the marketing channels, costs, margins, price spread, and marketing efficiency. Primary data was collected through structured surveys and personal interviews, while secondary data was sourced from government and agricultural institutions. Various marketing channels were examined to assess price realization and intermediary involvement. Key findings indicate significant price fluctuations due to climatic conditions and demand variations, leading to farmer vulnerabilities. Cost analysis reveals that intermediaries contribute to high marketing expenses, reducing farmer profitability. The study recommends contract farming, cooperative marketing, and digital platforms to enhance market efficiency. Additionally, government interventions such as subsidies and infrastructure development can strengthen the peppermint industry. The research underscores the need for improved storage, branding, and export facilitation to maximize farmers' earnings and ensure the sustainable cultivation of Mentha piperita.

Keywords: Socio-economic profile, Marketing channels, Marketing cost, Price spread, Marketing efficiency, Mentha piperita, Contract farming, Cooperative marketing, Market infrastructure, Export potential.

INTRODUCATION

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. The global demand for medicinal and aromatic plants has witnessed significant growth over the past few decades, primarily due to the increasing consumer preference for natural and organic products. Among these, *Mentha piperita*, commonly known as peppermint, holds a prominent position due to its diverse applications in the pharmaceutical, cosmetic, and food industries. The marketing of *Mentha piperita* has evolved over time, influenced by various factors such as cultivation practices, processing technologies, price fluctuations, and international trade dynamics. This study aims to explore the various aspects of the marketing of *Mentha piperita*, analyzing

the challenges and opportunities associated with its production, supply chain, and market reach. Peppermint cultivation requires specific agro-climatic conditions, and its production is concentrated in regions with moderate temperatures and well-drained soils. India is one of the leading producers of mentha oil, with key cultivation areas in Uttar Pradesh, Punjab, and Bihar. The production process involves sowing high-quality planting materials, ensuring appropriate irrigation, and managing pests and diseases to achieve high yields. Once harvested, the peppermint leaves undergo steam distillation to extract essential oil, which is the primary marketable product. The supply chain of *Mentha piperita* involves multiple stages, from farmers and primary producers to wholesalers, processors, exporters, and retailers. Farmers generally sell their produce either directly to processing units or through intermediaries, which often affects the profitability of small-scale cultivators. The marketing channels for peppermint include agricultural mandis, contract farming arrangements, cooperative societies, and direct sales to industrial buyers. Each of these marketing channels presents distinct advantages and challenges in terms of pricing, logistical efficiency, and market access.

RESEARCH METHODOLOGY

The study was confined to Barabanki district of Uttar Pradesh, The district comprises of Dewa block of the district was selected for study from each block Mentha cultivating potential village was be selected in consultation with one block agriculture official of Barabanki District and from each village ten percent farmers was randomly selected. Then total randomly selected farmers of different size group was selected for detail investigation. 100 farmers from six villages were selected and categorized by maximum area under production of Mentha cultivation. Data from 2024–2025 were collected through structured questionnaire designed specifically for the study. The questionnaire will consist of both open-ended and close-ended questions to capture quantitative and qualitative insights. And Secondary data was gathered from existing literature, market reports, company records, and online databases to supplement primary data and provide context to the findings. Analytical tools included Mean formula, Marketing costs, margins, Price Spread, Marketing efficiency and Garrett's Ranking Technique were also assessed.

Analytical Tools

1. Mean, (i) Arithmetic Mean = $\frac{\Sigma Xi}{N}$

(ii) Weighted Mean = $\frac{\Sigma WiXi}{\Sigma Wi}$

2. **Marketing Cost**, C= Cf+ Cm1+ Cm2+ Cm3+……. + Cmn

3. **Marketing Margins** = Retail or selling price - Actual cost

4. **Price Spread,** PS= MC + MM

5. **Marketing efficiency,** ME = $\left[\left(\frac{V}{I}\right) - 1\right]$

6. **Garett's Ranking Techniques,** Percent position = 100(Rij-0.5))/Nj

RESULTS AND DISCUSSION

Table 1. Age-wise distribution of farmers

Age (in years)	Size of Respondents					Overall	Percentage
	Marginal	Small	Semi-medium	Medium	Large		
Less than 30	4	7	3	5	9	**28**	**19%**
30-40	3	6	7	8	4	**28**	**27%**
40-50	2	5	6	9	5	**27**	**28%**
Above 50	6	4	2	3	2	**17**	**26%**
Total	**15**	**22**	**18**	**25**	**20**	**100**	**100%**

Table 2. Education status

Literacy Level	Size of Respondents					Overall	Percentage
	Marginal	Small	Semi-medium	Medium	Large		
Illiterate	6	4	9	6	3	**28**	**35%**
School level	5	5	6	4	10	**30**	**35%**
College level	3	6	4	9	8	**30**	**22%**
Professional and others	1	2	1	3	5	**12**	**8%**
Total	**15**	**17**	**20**	**22**	**26**	**100**	**100%**

Table 3. Income level status

S. No.	Annual Income	Farmers	Percentage (%)
1.	Below 50,000	37	30.83%
2.	50001 to 100000	24	20%
3.	1000001 to 150000	22	18.33%
4.	150000 to 200000	25	20.83%
5.	Above 200000	12	10%
	Total	**120**	**100%**

Table 4. Estimation Total Marketing Cost and Marketing Margin in Different.

Comparison points	Channel I	Channel II	Channel III
Total Marketing cost	2260	960	1550
Price Spread	2090	1580	1000
Producer's Share in Consumer Rupee	65.57%	73.58%	79.17%
Market Efficiency	0.0151	0.0290	0.0311

CONCLUSION

Mentha piperita (peppermint) is an economically significant aromatic crop cultivated widely in Barabanki district, Uttar Pradesh. This study analyzes its marketing system, socio-economic profile of farmers, price structure, and marketing efficiency. Data from 100 respondents revealed that 35% of farmers are illiterate, with the majority earning ₹1–1.5 lakh annually. Marketing takes place through three major channels, with producer's share in consumer price varying due to intermediary costs and price volatility. High transportation charges, inadequate storage, and commission fees emerged as major constraints. Channel III (Producer → Retailer → Consumer) showed higher marketing efficiency compared to traditional wholesale-dependent systems. Contract farming and cooperative marketing were found to reduce risk and improve price realization. Infrastructure development—such as cold storage, grading facilities, and digital trading platforms—can prevent distress sales, while branding, organic certification, and GI tagging enhance export competitiveness. The study recommends policy support through subsidies, futures trading mechanisms, and collective marketing models to stabilize farmer incomes and strengthen the Mentha piperita supply chain.

REFERENCES

Bhargava, R. (2016). Mosquito repellency potential of essential oils from various *Mentha* species, including *Mentha piperita*. *International Journal of Agricultural Sciences*, 12(4), 245–252.

Bihar Horticulture Department. (2016). *Detailed project report on mentha oil*. Bihar Government Press.

Choudhary, A., Sharma, P., & Verma, R. (2017). Menthol mint marketing in Uttar Pradesh. *Indian Journal of Agricultural Marketing*, 31(2), 145–160.

Choudhary, R., Gupta, M., & Sinha, P. (2020). Comparative analysis of *Mentha Piperita* marketing channels in Chhattisgarh. *Journal of Agribusiness Studies*, 18(1), 58–73.

Credence Research. (2023). *Global mentha oil market analysis: Trends and forecasts 2023–2030*. Credence Research Pvt. Ltd.

Desai, K., Patel, R., & Nair, S. (2024). *Mentha Piperita* market forecasting using machine learning in Tamil Nadu. *Journal of Agricultural Economics*

and Technology, 21(2), 110–125.

Dubey, V., Sharma, R., & Tiwari, K. (2021). Role of digital platforms in *Mentha* marketing in West Bengal. *Indian Journal of Agronomy and Rural Development*, 15(3), 190–205.

Gupta, P., Singh, M., & Yadav, L. (2018). *Mentha Piperita* supply chain bottlenecks in Uttarakhand. *Journal of Agricultural Research and Policy*, 25(4), 80–94.

ICAR. (2021). *Menthol mint cultivation: A step towards self-reliant India (Atmanirbhar Bharat)*. Indian Council of Agricultural Research (ICAR), New Delhi.

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