MINT - *Mentha arvensis L.*

**INTRODUCTION**

*Mentha arvensis* oil is a key component in the food, pharmaceutical, perfumery and flavouring industries. It is extensively used as a fragrance component in products such as soaps, detergents, cosmetics and perfumes, toothpastes and industrial fragrances. It is also used as a flavouring agent in food products such as confectionery, liqueurs and chewing gums. It is also a key ingredient in cough syrups, lozenges and herbal teas in the form of menthol or oil as well as in creams, ointments and nasal sprays for colds and infections. Both oil and menthol are used as active ingredients in cosmetics due to their “cooling” effect on skin, as well as for their antimicrobial properties.

India is the most competitive global supplier of *Mentha arvensis* products and accounts for over 90% of global crude oil production, having grown from just 20% in 1977 (Ghogale, 2005). According to Lawrence (2009) world production of *M. arvensis* oil was about 32,000 metric tons, with India producing 30,000 metric tons followed by China with 2,000 metric tons. The 2012 production figure for India *M. arvensis* oil reached 34,500 metric tons (Lawrence, 2013), but it is estimated to have risen to around 50,000 metric tonnes in 2013 (Jan, 2013).

In India, mint species are mainly cultivated in Uttar Pradesh, Haryana and Punjab and they occupy more than 162,800 hectares of agricultural land, of which over 90% is used for *M. arvensis*. The main areas for *M. arvensis* are Barabanki, Gonda, Faizabad and Sitapur, which together account for 60% of production, and Bareilly-Moradabad and Rampur (30%). It is estimated that 90% of *M. arvensis* cultivation is controlled by rural farmers on land sizes of between 0.2 and 2.0 hectares. (Verna et al., 2010; Lawrence, Data and Dossier)

**PRODUCTION AND PROCESSING CHARACTERISTICS**

*Mentha arvensis* oil is obtained from mint leaves by steam distillation.

Mint is grown in India as a seasonal third crop after rice-wheat or after rice-potato. Thus, nurseries need to be maintained for every season. Nurseries function between August and December and most growers transplant the mint to the field between January and March after harvesting potato or wheat. Mint is harvested and distilled twice in the growing season between April and August. If the season is late, then farmers will not be able to plant rice and will then proceed with a late harvest of mint, which thus helps them with a source of income. (Ghogale, 2005)

Distillation of *M. arvensis* is carried out both by farmers and non-grower distillers.

**SOCIAL AND ECONOMIC CHARACTERISTICS**

...it is not unreasonable to estimate that the number of workers associated with the production of *M. arvensis* oil in 2013 was about 15,000,000.

In 2010, the Central Institute of Medicinal and Aromatic Plants (CIMP) reported that there were 12,750,000 people involved in the production of *M. arvensis* oil in India. At that time the annual production of *M. arvensis* oil was 24,000 metric tons. If the number of workers is extrapolated to the current seasonal production (2012/13) of 45,000 metric tons, it is unreasonable to estimate that the number of workers associated with the production of *M. arvensis* oil in 2013 was about 15,000,000 (Lawrence, Data and Dossier).

**CONCLUSIONS**

*Mentha arvensis* oil is a key component in the food, pharmaceutical, perfumery and flavouring industries. It is estimated that its production in India, the major producer and exporter in the world, supports approximately 15,000,000 people. Moreover, since it is largely grown by poor and underprivileged farmers in India (and because of its production characteristics), *Mentha arvensis* oil represents a key income generator for those farmers, thus reducing poverty and increasing investment in health and education services, vital for their families and overall economic development within the country.

Photographs:
- Top right: Irrigation of *M. arvensis*.
- Second right: Water is added ready for distillation.
- Third right: Removal of distilled *M. arvensis* leaves.
- Bottom right: Oil is brought to the local market.

Three right: *M. arvensis* oil is a major source of income for farmers in India.

**REFERENCES**

- [Ghogale, R. F. (2005)](#).
- [Lawrence, B. H. (2009)](#).
- [Lawrence, B. H. (2013)](#).
- [Verna, R. S. et al. (2010)](#).

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