

MINT - Corrmint (*Mentha arvensis* L.)

An overview of some important essential oils and other naturals

Further to the report on patchouli oil published in the May 2014 edition of IFEATWORLD, the IFEAT Socio-Economic Sub-Committee has now finalised its report on the socio-economic impact of corrmint production, principally in India. This is the second of twelve reports which will be produced by the committee on the importance of specific naturals to the livelihoods of those involved in their production. The twelve products chosen for analysis by the Committee have been picked because of their high impact on the lives of those involved in producing them and the large number of people affected.

IFEATWORLD will continue to give updates on the work of the Socio-Economic Sub-Committee, chaired by **Jorge Miralles**, over forthcoming months and report on the production of the other ten vital raw materials that are included in the committee's remit. This is an important study for IFEAT, as the information gathered could help to reinforce federation views in future.



Workers removing weeds in a corrmint crop

INTRODUCTION

Corrmint (*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, liquors 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 corrmint 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 corrmint oil reached 34,500 metric tons (Lawrence, 2013) but is estimated to have risen to around 50,000 metric tonnes in 2013 (Jain, 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 corrmint. The main areas for corrmint 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 corrmint cultivation is controlled by rural farmers on land sizes of between 0.2 and 2.0 hectares. (Verma, et al., 2010; Lawrence, Data and Dossier)

PRODUCTION AND PROCESSING CHARACTERISTICS

Corrmint 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 monsoon 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 mint is then 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 corrmint oil in 2013 was about 15,000,000"

In 2010, the Central Institute of Medicinal and Aromatic Plants (CIMAP) reported that there were 12,750,000 people involved in the production of corrmint oil in India. At that time the annual production of corrmint oil was 24,000 metric tons. If the number of workers is extrapolated to the current seasonal (2012/13) production of 45,000 metric tons, it is not unreasonable to estimate that the number of workers associated with the production of corrmint oil in 2013 was about 15,000,000 (Lawrence, Data and Dossier).

Another important characteristic of the production of corrmint is that it is largely grown by poor and underprivileged farmers, as wealthy farmers tend to grow sugarcane, which has more than a one-year cycle. However, for small and poor farmers, mint is preferable as it can give them cash in hand within four months of plantation. Moreover, corrmint oil is sold by farmers at the collection centres of the large menthol companies (the end users of the oil), which allows them to be paid immediately for their oil. This is in contrast to the marketing of their rotation crops which are sold through a middle man, thus reducing direct profit to the farmers.

Thus, the production of corrmint oil is a key income generator for rural farmers in India compared to the other crops grown on their land. The expansion of corrmint oil production in the country has helped rural farmers to invest in their children's education as well as health care, particularly for the young and old family members.

CONCLUSIONS

Corrmint 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), corrmint oil represents a key income generator for those farmers, thus reducing poverty and increasing investment in health and education services, so vital for their families and overall economic development within the country.

Photographs:

Top right: Irrigation of corrmint

Second right: Water is added ready for distillation

Third right: Removal of distilled mentha leaves

Bottom right: Oil is brought to the local market

Bottom left: Corrmint brought to still by bicycle



Photos reproduced courtesy of Tien Yuan Chemical (Pte) Ltd, Singapore

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