CIM-Unnati: An essential oil rich variety of menthol mint (*Mentha arvensis* L.)

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**ABSTRACT**

Menthol mint (*Mentha arvensis* L.) is cultivated commercially for extraction of essential oil from upper ground herbage (leaves + stem). The essential oil of menthol mint is mainly used for production of menthol and the by-product dementholised oil (DMO) that find extensive applications in pharmaceutical and cosmetic industry. A new genotype of menthol mint MASP-19, now christened as CIM-Unnati, has been developed by CSIR-CIMAP through intensive breeding efforts for improved essential oil yield. The new variety CIM-Unnati consistently recorded higher essential oil yield over the commercial checks during field evaluation trials. The new variety has a potential to produce 185-190 q/ha herbage that can give an essential oil yield of 185-190 litre/ha. The variety matures in 100-110 days after planting. The menthol content in the oil is hovers around 74.3 %, which is as per industry requirement. The distinct leaf morphology and high essential oil yield are the two important features of this variety. This variety also satisfies several DUS (Distinctness, Uniformity and Stability) criteria.

**INTRODUCTION**

Menthol mint (*Mentha arvensis* L.) belonging to the family Lamiaceae, is an important medicinal and aromatic crop of the sub-tropical countries, including India. The other major menthol mint producing countries in the world are USA, several European countries, China and Brazil (Venkatesha et al., 2019). In India, menthol-mint is cultivated in more than 200,000 ha area in Uttar Pradesh, Bihar, Haryana, Punjab, West Bengal, Jammu & Kashmir, Himachal Pradesh and Uttarakhand (Rao and Syamasundar, 2013; Shukla et al., 2011). The essential oil of menthol mint is commercially used for producing menthol and the by-product dementholised oil (DMO) that find wide use in pharmaceutical and cosmetic industry. Menthol has a cooling and soothing effect on the skin, making it a useful ingredient in several pharmaceutical and...