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ORIGINAL ARTICLE

DOCUMENTATION OF FEW VOLATILE ORGANIC COMPOUNDS (VOCS) IN THE TRADITIONAL MANGO (*MANGIFERA INDICA* L.) VARIETY, CHAMPA, OF MURSHIDABAD DISTRICT OF WEST BENGAL

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ABSTRACT

Volatile organic compounds (VOCs) are central to the sensory identity of mangoes: they create the aroma bouquet that consumers perceive as "mango-ness" and strongly influence preference and willingness to pay. Traditional mango varieties grown in the Malda and Murshidabad districts of West Bengal form an important regional germplasm pool whose flavours and aromas are central to local cuisine, markets and cultural identity. This investigation is an initial attempt to find unique Volatile organic compounds (VOCs) in the traditional mango variety, Champa of Murshidabad district of West Bengal. The traditional variety Champa was chosen because of its unique aroma. The mature fruit has the aroma of the champaka flower, *Michelia champaca* L. Beyond flavour and processing, VOC profiles are powerful tools for authentication, traceability and value-addition. Chemical fingerprints derived from HS-SPME–GC–MS or related platforms allow differentiation among cultivars and can support geographic-indication branding or premium marketing for regionally prized varieties.

Keywords: *Mangifera indica* L., Volatile organic compounds (VOCs), Champa mango variety.