

## Volatile Profile of Monofloral honeys Produced by Stingless Bees from the Brazilian Semiarid Region

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**Abstract :** In Brazil, there is a diverse fauna of social bees, known by *Meliponinae* or native stingless bees. These bees are important for providing a differentiated product, especially regarding unique sweetness, flavor, and aroma. However, information about the volatile fraction in honey produced by stingless native bees is still lacking. The aim of this work was to characterize the volatile compound profile of monofloral honey produced by jandaíra bees (*Melipona subnitida* Ducke) which used chanana (*Turnera ulmifolia* L.), malícia (*Mimosa quadrivalvis*) and algaroba (*Prosopis juliflora* (Sw.) DC) as their floral sources; and by urucú bees (*Melipona* *scutellaris* Latrelle), which used chanana (*Turnera ulmifolia* L.), malícia (*Mimosa quadrivalvis*) and angico (*Anadenanthera colubrina*) as their floral sources. The volatiles were extracted using HS-SPME-GC-MS technique. The condition for the extraction was: equilibration time of 15 minutes, extraction time of 45 min and extraction temperature of 45°C. Through the results obtained, it was observed that the floral source had a strong influence on the aroma profile of the honey under evaluation, since the chemical profiles were marked primarily by the classes of terpenes, norisoprenoids, and benzene derivatives. Furthermore, the results obtained suggest the existence of differentiator compounds and potential markers for the botanical sources evaluated, such as linalool, D-sylvestrene, rose oxide and benzenethanol. These reports represent a valuable contribution to certifying the authenticity of those honey and provides for the first time, information intended for the construction of chemical knowledge of the aroma and flavor that characterize these honey produced in Brazil.

**Keywords :** aroma, honey, semiarid, stingless, volatiles

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