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SCENTS FROM BRAZILIAN CERRADO: CHEMICAL COMPOSITION OF THE ESSENTIAL OIL FROM *PSEUDOBICKELLIA BRASILIENSIS* (ASTERACEAE)

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Cerrado (savannah) is the second largest Brazilian biome, but the first in number of endemic species and the most threaten by anthropic pressure. A small fraction of the 12,000 known botanical species were chemically investigated. Cerrado is a very promising source for flavour and fragrance applications. Considering this, Embrapa has started a research project to study the aromatic species from this biome in order to propose sustainable alternatives for their commercial use. *Pseudobrickellia brasiliensis* (Spreng.) R.M. King & H. Rob. (Asteraceae) is a shrub 1-1.5 m tall, largely distributed in Central Brazil at Cerrado vegetation (1). It is commonly known as "arnica-do-mato" and used in traditional medicine to treat pain and as antiinflammatory. In this study the chemical composition of the essential oil from the leaves was investigated.

Leaf samples were collected at Araçuaí, Minas Gerais State, and voucher specimen deposited at the herbarium of Embrapa Genetic Resources and Biotechnology (CEN) at number JBP339. Dried plant (aerial parts) was extracted in a Clevenger type apparatus for 2 hours. The oil was analyzed by gas chromatography and mass spectrometry using an Agilent 7890A gas chromatograph equipped with a FID and an Agilent 5973N MSD. A DB-5 capillary column (30m X 0.25mm X 0.25 µm) was used, with either hydrogen (for FID) or helium (for MS) as carrier gas, at 1.0mL/min. Column temperature was programmed from 60°C to 240°C at 3°C/min. Mass detector was operated in electronic ionization mode at 70eV. Identification of compounds was achieved by comparison of both mass spectra and retention indices with spectral libraries and literature data (2,3).

Thirty-five out of 39 compounds were identified in the oil. Terpinen-4-ol (38.6%), gamma-terpinene (19.5%), alpha-terpinene (7.8%) and alpha-terpineol were the major components. A previous investigation of the same species pointed out alpha-pinene (32.6%), beta-pinene, alpha-thujene and sabinene as major compounds in plants from the same geographical area (4). Further studies on volatiles variability are needed to evaluate the possibility of occurrence of chemotypes.

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