

## PP-092. Scents from Brazilian Cerrado: Chemical composition of the essential oil from the flowers of *Hoehnephytum trixoides* (Gardner) Cabrera (Asteraceae).

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Cerrado (Brazilian savannah) has one of the highest concentrations of endemic species on the planet and it is one of the most threatened by human activities. Cerrado has very many aromatic plant families and 1.5% of all endemic species on the planet. More than 12,000 plant species have been cataloged in this biome, many of which had never had their volatile composition studied (1,2). A research project has been started by Embrapa in partnership with other research centers in order to investigate the volatile chemical composition of the rich flora from this biome (3). *Hoehnephytum trixoides* is a subshrub, 1 m tall, with abundant yellow flowers. Flower samples were harvested in August 2013, during the dry season at IBGE ecological reserve in Brasília, Brazil.

Flowers from five individuals of a population were collected in Brasília, Brazil. A voucher specimen was deposited in the herbarium of the Genetic Resources and Biotechnology (registry: CEN 82877). Dried flowers (133 g) were subjected to hydrodistillation in a Clevenger-type apparatus for 2 hours. The oil was analyzed by GC/FID and GC/MS in an Agilent 6890N and an Agilent 5973N systems, both with HP-5MS fused silica capillary columns (30 m X 0.25 mm X 0.25  $\mu$ m). Hydrogen was used as carrier gas for GC/FID and helium for GC/MS, both with a flow rate of 1.0 mL/minute. Oven temperature was raised from 60 to 240°C at 3°C/minute. Mass detector was operated in electronic ionization mode at 70eV. The percentage composition was obtained by normalization from FID. Oil components were identified by comparison of both mass spectra and linear retention indices with spectral library and literature (4,5).

The essential oil was obtained in 0.7 % yield. Thirty-nine compounds were identified, corresponding to 97.1% of the oil. The major compounds present were  $\beta$ -pinene (33.7%),  $\delta$ -3-carene (22.9%),  $\alpha$ -pinene (8.9%), sabinene (6.7%) and bicyclogermacrene (5.6%).

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### Reference

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