PP-091. Scents from Brazilian Cerrado: The essential oil from the leaves and flowers of *Hyptis suaveolens* (L.) Poit. (Lamiaceae).

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The Cerrado is a savannah-like vegetation occurring in Central Brazil, covering almost 2 million km^2. The Cerrado is very varied in form, ranging from dense grassland to an almost closed woodland with a canopy height up to 15 m. More than 12,000 plant species have been cataloged in this biome, including several aromatic plant families, such as Lamiaceae, Verbenaceae and Asteraceae. Studies indicate that the Cerrado is an important center of biodiversity, being considered one of the 25 most important biodiversity hotspots of the world. The huge biodiversity from this biome may be a great source of fascinating natural scent (1,2). A research project has been started in order to investigate the volatile chemical composition of the rich flora from the Cerrado. Hyptis suaveolens (L.) Poit is a herb, 50-100 cm tall, abundant and with a strong scent. Samples were harvested in April 2013, at the Ermida Dom Bosco preservation area, Brasília, DF.

Flowers and leaves from six individuals of a population were collected in Brasilia, Brazil. A voucher specimen was deposited in the herbarium of Embrapa Genetic Resources and Biotechnology (registry: CEN 82850). Fresh leaves (59.6 g) and flowers (113.3 g) were subjected to hydrodistillation separately in a Clevenger-type apparatus for 2 hours each. The oils were 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 µm). Hydrogen was used as carrier gas for GC/FID and helium for GC/MS, both with a flow rate of 1.0 mL/min. Oven temperature was raised from 60 to 240°C at 3°C/min. 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 (3,4).

Oil yields were 0.42% and 0.05% for flowers and leaves, respectively. In the oil from the flowers 56 compounds were identified, corresponding to 95.9% of the oil, whereas in the oil from leaves 68 compounds were identified (93.6% of the oil). The leaf oil was rich in sesquiterpenes (70.9%), and the major components were bicyclogermacrene (10.2%), (E)-caryophyllene (7.3%), γ-muurolene (5.6%), epi-α-cadinol (4.9%) and 1,8-cineol (4.8%). The oil from the flowers oil was rich in monoterpenes (71%). Its major compounds were sabinene (25.9%), 1,8-cineole (17.7%), bicyclogermacrene (7.2%), β-pinene (6.9%), limonene (5.3%) and γ-muurolene (5.2%).

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