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SCENTS FROM BRAZILIAN CERRADO: CHEMICAL COMPOSITION OF THE ESSENTIAL OIL FROM THE LEAVES OF *HYPTIS LYTHROIDES* POHL EX BENTH. (LAMIACEAE)

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Brazil is known to harbour the richest flora of the planet, about one-sixth of the total of number of plant species. Its flora is divided in several biomes, such as the savannah area, called Brazilian Cerrado. It is the second larger Brazilian biome and contains *circa* 12 000 plant species, most of them never submitted to phytochemical studies (1,2). This work is part of a research project aimed to investigate the chemical composition of aromatic plants native from Brazilian Cerrado. Herein we report the analysis of the essential oil from *Hyptis lythroides* (= *Oocephalus lythroides* (Pohl ex Benth.) Harley & J.F.B.Pastore - Lamiaceae), an endemic Brazilian herb, with purple flowers, growing at forest borders.

Leaves from several individuals of a population were collected at ecological Park Dom Bosco, Brasilia, Brazil. A voucher specimen was deposited in the herbarium of Embrapa Genetic Resources and Biotechnology (CEN 82851). Dried leaves (129.3 g) were subjected to hydrodistillation in a Clevenger-type apparatus for 2 hours. The oil was analyzed by GC/FID and GC/MS using an Agilent 7890A GC and an Agilent 5973N MSD system, both fitted with HP-5MS fused silica capillary columns (30 m X 0.25 mm X 0.25 μ m). Carrier gas was kept at a flow of 1.0 mL/minute (hydrogen for GC/FID and helium for GC/MS). Oven temperature was programmed from 60 to 240°C at 3°C/minute. The percentage composition was obtained by normalization from FID. Essential oil components were identified by comparison of both mass spectra and linear retention indices with spectral library and literature (3, 4).

The essential oil yield was 0.84%, which can be interesting considering a wild species. Seventy-three compounds were identified, corresponding to 95.6% of the total essential oil. The major compounds found were spathulenol (14.5%), β -pinene (12.1%), bicyclogermacrene (11.9%), (*E*)-sesquisabinene hydrate (8.6%) and α -thujene (5.8%).

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1. RF Vieira et al. (2010) *Isr. J. Plant Sci.*, 58: 263-271.

2. N Myers et al. (2000) *Nature*, 403: 853-858.

3. *Wiley Registry of Mass Spectral Data*, 6th edn. Wiley Interscience, New York (1994).

4. Adams, RP (2007) *Identification of Essential Oil Components by Gas Chromatography / Mass Spectrometry*. 4th ed. Carol Stream: Allured Publ. Corp.