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SCENTS FROM BRAZILIAN CERRADO: CHEMICAL COMPOSITION OF THE ESSENTIAL OIL FROM THE FLOWERS AND LEAVES OF *LIPPIA STACHYOIDES* VAR. *MARTIANA* (SCHAUER) SALIMENA & MÚLGURA

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Cerrado is a savannah-like biome which occurs in Central Brazil. It is the second largest biome in Brazil, containing about 12,000 known plant species, many of which are endemic (1). It is considered one of the most important biodiversity hotspots of the world, highly threatened by anthropic action (2). A large number of these endemic species, albeit cataloged by botanists, have never been subjected to chemical investigation. Aiming to gather knowledge on the flora of the Cerrado, we have started a research project in order to investigate the chemical composition of some plants native from this biome. Herein we report the analysis of essential oils from *Lippia stachyoides* var. *martiana*, an endemic shrub, 1m tall, with white flowers growing at Cerrado field.

Flowers and leaves from five individuals of a population were collected at the ecological reserve of the Instituto Brasileiro de Geografia e Estatística (IBGE, Brasilia, Brazil). A voucher specimen was deposited in the herbarium of the Genetic Resources and Biotechnology (CEN 82848). Fresh flowers (100 g) and leaves (450 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 7890A and an Agilent 5973N system, both fitted with HP-5MS fused silica capillary columns (30 m X 0.25 mm X 0.25 μm). Hydrogen was used as carrier gas at a flow rate of 1.0 mL/minute 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 constituents were identified by comparison of both mass spectra and linear retention indices with spectral library and literature (3,4).

Essential oil (EO) yields were 1.6% and 0.6% (mg EO/100g plant) for flowers and leaves, respectively. A total of 57 compounds were identified in the flowers, corresponding to 96.9% of the constituents, whereas 41 compounds were identified in the leaves (97.7% of the constituents). Both essential oils were rich in (*E*)-nerolidol (15.6, and 16.4%, respectively), delta-cadinene (15.8 and 18.5%), spathulenol (8.1 and 16.4%), caryophyllene oxide (6.6 and 7.8%) and cubebol (8.5 and 7.4%).

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