



Scents from Brazilian Cerrado: The essential oil from the leaves of Wedelia regis (Asteraceae)

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Cerrado stands out among the biomes found in Brazil due to its rich biodiversity, great endemism occurrence and high anthropic pressure, is therefore listed as a biodiversity hotspot (1). Located in Brazil's Midwest and occupying 21% of the national territory, it remains an area few studied so far (2). The AROCER project is an initiative for the prospection of aromatic plants from the Cerrado targeted to the development of income generation for the local population and sustainable cultivation practices. Wedelia regis (family Asteraceae) is a shrub native form the Cerrado, occurring from Minas Gerais to Tocantins States. Leaves samples were collected from a population in Brasília, DF. The essential oils were obtained by hydrodistillation in a Clevenger-type apparatus. The oils were analyzed by GC-FID and GC-MS in Agilent 6890N and 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/minute. Oven temperature was raised from 60 to 240°C at 3°C/minute. Mass detector was operated in electronic ionization mode at 70 eV. Quantitative data were obtained from the FID signal corrected with response factors and with area normalization using ethyl octanoate as internal standard. Oil components were identified by comparison of both mass spectra and linear retention indices with spectral library and literature. Oil yield was 0.1%. W. regis essential oil was rich in oxygenated sesquiterpenes and its major components were spathulenol (28.6%), caryophyllene oxide (15.1%), (E)-caryophyllene (6.8%), α-cadinol (5.4%) and α-humulene (5.0%).

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