



Chemical composition of essential oils of three species belonging to the Verbenaceae family: *Lippia alba*, *Lantana camara* and *Lantana canescens*

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The Verbenaceae family has been widely studied for its diversity and its applications to the pharmaceutical, cosmetic and food industries (1). This family includes about 91 genus and 3,000 species (2). Plant materials were collected in Dagua, Valle del Cauca, Colombia. The taxonomic identifications (*Lippia alba*, COL582597, *Lantana canescens*, COL582598 and *Lantana camara*, COL582528) were made at the Colombian National Herbarium (COL). Essential oils (EO) were extracted by steam distillation from the plant aerial parts. Yields (% w/w) of 0.05, 0.01, and 0.02, were obtained for *L. alba*, *L. canescens*, and *L. camera*, respectively. The oils were analyzed in an Agilent Technologies (Palo Alto, CA, USA) 6890 Plus gas chromatograph, coupled to a 5973 Network mass selective detector. A non-polar DB-5MS column (J & W Scientific, Folsom, CA, USA) 60 m X 0.25 mm ID, coated with 5% phenyl poly (dimethylsiloxane) (0.25 μ m) and a polar DB-WAX (J&W Scientific) column 60 m X 0.25 mm ID, coated with polyethylene glycol (0.25 μ m) were employed. The chromatographic oven temperature was programmed from 50 °C (5 min) to 250 °C (2 min) at 4°C min⁻¹. Compound identification was based on mass spectra and retention indices. Germacrene D was common to the three oils in amounts of 20-30 %. *Trans*- β -caryophyllene was found in relative amounts of 31-35 % in the studied plants of the genus *Lantana*. The major compounds identified in *L. alba* oil were: carvone (48 %), germacrene D (21 %) and limonene (18 %). In the *L. canescens* EO, *trans*- β -caryophyllene (35 %), germacrene D (30 %) and α -humulene (17 %) were observed, and in the *L. camara* EO, *trans*- β -caryophyllene (32 %), germacrene D (21 %) and *trans*-nerolidol (14 %).

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