Essential oil composition of cultivated *Campomanesia adamantium* L. (Myrtaceae) leaves

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The *Campomanesia* (Myrtaceae) species, known as guavira or gabiroba, are used in traditional medicine against hypertension, throat infections and intestinal infections. In the essential oil from the leaves of *Campomanesia adamantium* L., 82 compounds were identified in which limonene was the major component (1). Based on the assessment of the morphological characteristics, it was perceived variability of a collection of *C. adamantium* grown in the Garden of Medicinal Plants-GMP, at UFGD. This work was carried out in order to evaluate if the composition of the essential oil of *C. adamantium* grown in the GMP is correlated with the morphological variability. A voucher specimen was deposited in the herbarium DDMS no. 2192. The plants evaluated had the following data for plant height (m), stem diameter (mm), average leaf length (cm) and leaf color, respectively: 1) 1.62; 23.64; 9 and dark green with yellow spots; 2) 1.80; 37.75; 7 and light green leaves with yellow spots; 3) 2.05; 53.87; 6 and grayish green leaves with brown spots; 4) 1.98; 52.68; 7, dark green leaves with brown spots on the edges; 5) 1.75; 52.31; 6.5 and light green. Samples of leaves (200 g) from each plant were collected in January 2015 and submitted to the extraction by hydrodistillation, using a Clevenger-type apparatus for 4 h. The oils were analysed by GC/MS using capillary column DB-5 (30.0 m X 0.25 mm X 0.25 µm). The analysis conditions were: carrier gas helium (99.999%, and flow rate of 1.0 ml min^{-1}), injection volume 1 µl in split mode (1:20). Initially, the oven temperature was kept at 50 ºC reaching 250 °C at a rate of 3 °C min^{-1}. Temperatures of the injector, detector and transfer line were kept at 250 °C. The parameters included scanning MS voltage electron impact ionization of 70 eV, a range of mass 45-600 *m/z* scan (0.5 s). Oil components were identified by comparison of both mass spectra and linear retention indices with spectral library and literature (2). Forty-six compounds were identified in the essential oil of *C. adamantium* and the same compounds were identified in all samples. The major compounds were α-pinene, globulol, limonene, β-pinene, *trans*-hydrate sabinene and bicyclogermacrene, confirming earlier results in literature, however, in a wild condition (2). The morphological variability of plants evaluated through plant height, stem diameter, leaf size and leaf color showed parallel pharmacognostic variability in the levels of identified secondary metabolites.

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