Biotransformation of geraniol by *in vitro* cultures of *Aloysia triphylla* (L'Herit) Britton: effect on growth and volatile components.

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Aloysia triphylla (L'Herit) Britton (= *Aloysiaci triodora* Palau) is an aromatic and medicinal plant. Late spring cuttings are the current propagation method of this species, but there can be losses during winter. Micropropagation is a promising technology for plant multiplication without disruption as well as for production of diverse plant metabolites. This study evaluated the biotransformation capacity of *in vitro* cultures of *A. triphylla* shoots after the addition of the oxygen-containing monoterpene geraniol, by assessing the cultures growth and volatiles composition. Explants were aseptically inoculated in 15 mL WPM medium (1) with and without (control cultures) geraniol addition at 25 mg L^{-1}. Cultures were maintained at 24 °C in a photoperiod of 16 h light. Growth and volatiles production were evaluated at the inoculation time (0), 8, 24 and 48 h after inoculation and weekly during four weeks. Shoots growth was evaluated by measuring fresh weight and by using the dissimilation method as in (2). Volatiles were isolated by hydrodistillation and analyzed by GC/FID and GC–MS as in (3). Substrate addition had no negative influence on shoots growth. Geranial, neral, limonene and 1,8-cineole were the main constitutive volatiles components of *A. triphylla* shoots, although in variable amounts during the growth period. No new volatiles were detected after geraniol addition. Given the possibility of geraniol integration into non-volatile components, as it was found in other *in vitro* plant culture systems (2), running experiments will evaluate the possibility of geraniol glycosylation.

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