

## Volatile and sensory characterization of Uruguayan native flora for the development of air fresheners

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A commercial answer to manage sensations can be found in the so-called “olfactive or multisensory marketing”. The explanation lies in the importance of sensory dimensions as a key to sensitize, treasure or record a specific product in our memory. It is well known that essential oils components can produce a sensory impact depending of their concentration (Franz, 2010). New analytical techniques and the increasing sensitivity, allow studying the contribution of minor components on the global aroma. In this work, twelve different essential oils of aromatic plant species native from Uruguay were sensory and chemically characterized. The purpose was to select those which could integrate formulations to be tested as odorants in classrooms and offices (FQ-UdelaR). Aromatic plants were codified using different letters [*Schinus molle* (SM), *Pluchea sagittalis* (PS), *Austroeuatorium inulifolium* (AI), *Aloysia triphylla* (AT), *Lippia alba* (LA), *Solidago chilensis* (SC), *Achyroclines satureioides* (AS), *Eugenia uniflora* (EU), *Eupatorium buniifolium* (EB), *Hyptis mutabilis* (HM), *Aloysia gratissima* (AG), *Mikania micrantha* (MM)]. Essential oils were analyzed by GC-FID-MS and GC-O. Samples volatile profiles were statistically differentiated on the amount of oxygenated compounds. Essential showed remarked differences on their volatile profile. High aromatic activity was found for AT, EU, LA, SM y PS essential oils. Oxygenated monoterpenes (OM) were found in higher proportions in AT, LA and PS, while higher concentrations of oxygenated sesquiterpenes (OS) were reported in EU, SM and HM. From a chemical point of view, analysis evidentiates that AT and EU could be used in the fragrances formulations. Even though odors are perceived differently depending on race, age or gender, the correlation with sensory attributes was performed according to Ares (2015). Sensory analysis classified the essential oils into 30 categories. Correspondence analysis allowed characterizing samples with attributes including weeds, chemical, citric, floral, sweet, mint or tea. Statistical results showed that AT, AS and EU have potential to produce pleasant air fresheners.

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