OMICS Group Conferences
Accelerating Scientific Discovery

International Conference on
Agricultural & Horticultural Sciences

September 14-15, 2012 Hyderabad International Convention Centre, India

Essential oil composition of an aromatic medicinal herb Artemisia annua L. at different growth stages

K. Abirami[a], Virendra Singh Rana[a], Satyabrata Maiti[a] and María Amparo Blázquez[b]
[a]Directorate of Medicinal and Aromatic Plants Research, Boriavi-387 310, Anand, India
[b]Department de Farmacologia, Facultat de Farmàcia, Universitat de València, Spain

Chemical composition of the essential oils obtained from the aerial parts of Artemisia annua at vegetative, pre-bloom, bloom and post-bloom stages were determined using GC and GC/MS analysis. The yields of the essential oil were 0.14, 0.34, 0.64 and 0.54% (w/w) respectively at different growth stages. A total of sixty seven compounds were identified in analyzed essential oils. Oxygenated monoterpenes (39.0-57.0%) constitute the main fraction of the oils followed by sesquiterpene hydrocarbons (11.8-26.2%) and monoterpene hydrocarbons (4.2-15.1%). The main compounds identified in all analyzed samples were camphor (28.6-31.7%), 1,8-cineole (2.1-20.8%), germacrene D (3.8-12.0%), β-caryophyllene (2.8-6.9%), trans-β-farnesene (0.7-4.5%), α-pinene (0.5-2.4%), p-cymene (0.8-2.3%) and terpinen-4-ol, (0.9-2.1%). Considerable quantitative variations in both, oil yields and chemical compositions at different growth stages were found.

abirami78@gmail.com