

The Potency and Efficacy of Essential Oils from Selected Aromatic Crop Species Commercially Grown in Uganda: A Review of their Use in Animal and Human Therapeutics

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There is increased use of essential oils from aromatic crops in the beverage pharmaceuticals, apiary and cosmetics industries in addition to aromatherapy due to production of active compounds. Essential oils have been proven to have bactericidal, virucidal, fungicidal, anti-parasitic and insecticidal effects. The aim of this review was to provide an overview of efficacy and potency of essential oils from selected aromatic crop species commercially produced in Uganda. We reviewed relevant articles, books, theses, dissertations, patents, and other English only reports using potency, traditional medicinal uses, pharmacological or biological activity, toxicity, phytochemistry, and efficacy of *Cymbopogon citratus*, *Salvia rosmarinus*, *Eucalyptus citriodora* and *Lavandula angustifolia* as the key search terms. We searched databases such as PubMed, Web of Science, Scopus, Science Direct and search engines such as Google Scholar between June and November 2021. The essential oils were reported to have antibacterial, antifungal, anticancer, anthelmintic, insecticidal, larvicidal, acaricidal and antioxidant effects. Additionally, rosemary oil inhibited aflatoxin growth and secretion, stimulated the nervous system and stabilized mayonnaise during storage. The biological activities exhibited by essential oils in this review validate their current and potential use in the pharmaceutical, cosmetic and food industries.

Keywords: Essential oils biological activity aromatic crops Uganda cytotoxicity phytochemistry therapeutic