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Pharmacognostical aspects of seven *Ocimum* morphotypes available in Sri Lanka

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The genus *Ocimum* comprises therapeutically important medicinal plants which are heavily used in traditional systems of medicine. Although this genus has a great value for its medicinal properties, available information on Sri Lankan grown *Ocimum* species is scattered or lacking. Therefore, the present study was undertaken to investigate significant pharmacognostic aspects of seven *Ocimum* morphotypes grown in Sri Lanka by means of physicochemical parameters, phytochemical constituents and bioactivity. Phytochemical and physicochemical studies were conducted as per WHO guidelines. Brine shrimp toxicity assay was conducted as per Michel *et al.*, 1956. Results revealed that the physicochemical parameters were within the range accepted by the WHO guidelines. The phytochemical screening test revealed the presence of secondary metabolites such as flavonoids, alkaloids, saponins, tannins, steroidal glycosides in all *Ocimum* morphotypes tested. Thin layer chromatographic profiles after spraying with three spray reagents, vanillin-sulfuric, ferric chloride and anisaldehyde-sulfuric exhibited the presence of different chemical compounds at different R_f values. Some R_f values were common to all morphotypes while some exhibited distinguishing spots with different R_f values, 0.59 for vanillin-sulfuric, 0.57 and 0.71 for ferric chloride and anisaldehyde-sulfuric respectively. All morphotypes exhibited a certain toxicity. The findings of the current study are of vital importance for quality control and standardization of *Ocimum* species.

Keywords: Morphotype, pharmacognosy, *Ocimum*, phytochemicals, physico-chemicals, thin layer chromatography