PHYTOCHEMICAL SCREENING, TOTAL PHENOLIC, TOTAL FLAVONOID AND MINERALS CONTENT OF *Mimosa pudica*

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ABSTRACT

PHYTOCHEMICAL SCREENING, TOTAL PHENOLIC, TOTAL FLAVONOID AND MINERALS CONTENT OF *Mimosa pudica*

Mimosa pudica is from family of Mimosae known as "sensitive plant" in English and "pokok semalu" in Malay. Many studies quantified amount of chemical compounds from different parts of *M. pudica*, but very limited research has been reported to analyze amount of minerals content in different parts of both dried and fresh *M. pudica* independently. This study was conducted to determine the phytochemical constituents, total phenolic, total flavonoid in various extracts of different parts (leaves, roots and stems) of dried *M. pudica* and to determine the mineral content. The present study reveals that alkaloids, flavonoids, glycosides, phenols, saponins, tannins and terpenoids were present in dried leaves, root and stem of *M. pudica*. Total phenolic content was estimated by using Follin-Ciocalteau method and the amounts ranged between 0.0061 to 0.1256 mg GAE/g. Total flavonoid content was measured by aluminum chloride colorimetric assay and the amounts varied from 0.0078 to 0.0248 mg QE/g. Interestingly, both TPC and TFC showed the highest content in chloroform extract of dried roots and stems of *M. pudica* respectively. Minerals content was determined by using nitric-hydrochloric acid digestion. The present study reveals that micronutrients (Cu, Fe, Mn, Zn) and macronutrient (K) present in different parts of both dried and fresh *M. pudica*. The concentration of K was recorded the highest in all studied samples and the values varied between 2215 to 9057.5 ppm. This study justifies the use of these plants as a traditional remedy and a promising plant species for natural source of phenolic, flavonoid and minerals with potential value for treatment of many life threatening diseases. Therefore, the utilization of these plants will be an advantage to human.

Keywords: Flavonoid, *Mimosa pudica*, Mineral, Phenolic, Phytochemical