

PHYTOCHEMICAL CONTENTS OF *Swietenia mahogani*

LEAVES AND WINGED SEEDS

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ABSTRACT

The general objective of this study was to determine the phytochemical contents of mahogany leaves and winged seeds. Ethanol extracts of mahogany winged seeds and leaves underwent qualitative tests for anthraquinones and saponins. Quantitative tests for alkaloids, flavonoids, tannins and cardiac glycosides were also conducted. The froth test was used to determine the presence of saponins and Borntrager's test was used for anthraquinones. The gravimetric method was used to quantify alkaloids and flavonoids, while UV-VIS absorption was used for tannins and cardiac glycosides. The leaves of mahogany have positive results in anthraquinones and saponins while the winged seeds are negative in anthraquinones and positive in saponins. The leaves contained 4.204 ± 0.3 % alkaloids, 10.35 ± 0.7 % flavonoids, 0.585 ± 0.1 $\mu\text{g/mL}$ tannins and 33.6 ± 0.9 $\mu\text{g/mL}$ cardiac glycosides. The winged seeds contained 2.414 ± 0.3 % alkaloids, $6.880 \pm 0.3\%$ flavonoids, 0.270 ± 0.003 $\mu\text{g/mL}$ tannins, and 32.6 ± 1 $\mu\text{g/mL}$ cardiac glycosides. The presence of phytochemicals in the leaves and winged seeds of mahogany may indicate its usage as a source for new potential drugs and in pharmaceutical industry. It is recommended that further studies on the medicinal value and uses of the different parts of mahogany be conducted.