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EXPLORATION OF WILD PLANTS *LANTANA CAMARA* LINN. AS A SOURCE OF PHENOLIC, FLAVONOID, AND TANNIN

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Abstract

Backgrounds: *L. camara* Linn. as an invasive plant and is considered a dangerous plant. However, these plants contain secondary metabolites that are beneficial for health. Secondary metabolites contained in *L. camara* Linn. leaves. including phenolic, flavonoids, and tannin. We hope that in the future, *L. camara* Linn. can be used as a source of phenolic, flavonoids, and tannin. The aim of this research was to determine the content of gallic acid equivalent of phenolic (GAEP), quercetin equivalent of flavonoid (QEF), and tannic acid equivalent of tannin (TAET) in *L. camara* Linn. leaf extract.

Methods: Leaves collection of *L. camara* Linn. originating from Jalan Tondano Kamangta Suluhan, Tombulu District, Minahasa Regency, North Sulawesi Province, Indonesia (1°21'46.6"N 124°54'13.0"E). *L. camara* Linn. leaves were extracted with ethanol, organoleptic test, and pH test. Apart from that, levels of the GAEP, QEF, and TAET were also measured. Measurements of GAEP, QEF, and TAET levels were carried out using a spectrophotometer.

Results: The GAEP content of *L. camara* Linn. leaf extract is 0.288±0.002 mg/g. The QEF content of *L. camara* Linn. leaf extract is 0.428 ± 0.004 mg/g, while the content of TAET is 0.384 ± 0.009 mg/g. The content of secondary metabolite levels can be used as a reference for studying *L. camara* Linn. as a source of GAEP, QEF, and TAET.

Conclusions: The secondary metabolite content can be used as a reference for studying *L. camara* Linn. as a source of GAEP, QEF, and TAET. The new paradigm states that *L. camara* Linn. not only is it considered a wild plant that is dangerous for the environment, but it can be used as a source for GAEP, QEF and TAET exploration.

Keywords: *Lantana camara* Linn., organoleptic, quercetin equivalent flavonoid, gallic acid equivalent phenolic, tannic acid equivalent tannin.