UJI AKTIVITAS ANTIOKSIDAN, TOKSISITAS DAN KANDUNGAN FENOLIK TOTAL DARI EKSTRAK DAUN TERONG BELANDA (*Solanum betaceum cav*.)

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ABSTRACT
DETERMINATION OF ANTIOXIDANT ACTIVITY, TOXICITY AND TOTAL PHENOLIC CONTENTS FROM TAMARILLO LEAVES EXTRACT (*Solanum betaceum cav.*)

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Tamarillo (*Solanum betaceum cav*.) contains phenolic, flavonoids, vitamin C and other compounds that make this plant potential for use as medicinal plants. This study was conducted to determine the antioxidant activity, toxicity and total phenolic content of leaf extract of tamarillo. The extraction was done by maceration, the antioxidant test was done by DPPH method, the toxicity test was done using *Brine Shrimp Lethality Test* (BSLT) method and the determination of total phenolic content was done by *Folin-Ciocalteu* method. Methanol, ethyl acetate and hexane extract was obtained 15.12%, 12.48% and 9.49%, respectively. IC_{50} values of methanol, ethyl acetate and hexane extract were 33,7337 mg / L, 89,2985 mg / L and 296,8204 mg / L, respectively. These results showed that the methanol extract is most potential as an antioxidant because it has small IC_{50} value. The LC_{50} values of methanol extract, ethyl acetate and hexane were 703,7202 mg / L, 834,4493 mg / L and 1783,6104 mg / L, respectively, showed that the methanol and ethyl acetate extract were toxic while the hexane extract was not toxic. The total phenolic content is expressed in GAE / 10 mg dry extract with the most content contained in methanol extract of 32,152 mg / L, while ethyl acetate extract and hexane were 6.276 mg / L and 2.716 mg / L, respectively.

Keywords: tamarillo, antioxidant, toxicity, phenolic