

ABSTRACT

THE LARVICIDAL EFFECT OF ETHANOLIC EXTRACT FROM AVOCADO SEED (*Persea americana* Mill) TOWARD *Aedes* sp. LARVAE

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Dengue Hemorrhagic Fever (DHF) is a mosquito borne disease by Aedes sp. and endemic across the continent. DHF could be prevented by plant extract as bio-larvicide, example avocado seed. This study is to investigate larvicidal activity of ethanolic extract of avocado seed (EEAS) and determine the effect comparison on a par with Temephos as larvicide toward Aedes sp. larvae. Its design is experimental laboratoric. Subjects consisted of 875 Aedes sp. larvae. Data counted by the number of larvae died within 24 hours after administration of EEAS in various concentrations (20 ppm, 40 ppm, 60 ppm, 80 ppm and 100 ppm). The data were analysed using Kruskal-Wallis test continued by Mann-Whitney test ($\alpha=0.05$). The results showed various concentrations of EEAS with negative controls had significant differences ($p\leq 0,01$). Results showed the smallest concentration (20 ppm) killed 89.8% and the largest concentration (100 ppm) killed 98.4% of Aedes sp. larvae. Compared to Temephos, EEAS 20 ppm ($p=0,005$) and 40 ppm ($p=0,018$) has weaker effect whilst EEAS 60 ppm ($p=0,053$), 80 ppm ($p=0,05$) and 100 ppm ($p=0,134$) has equivalent effect. The conclusion was ethanolic extract of avocado seed has a larvicidal effect and equivalent to Temephos as Aedes sp. larvicide.

Keywords: Persea americana Mill. seed, larvicide, ethanolic extract, Aedes sp.

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