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**Uji Efektivitas Ekstrak Etanol Daun Alpukat Muda (*Persea americana*)
Sebagai Larvasida Alami Terhadap Larva Nyamuk *Aedes aegypti* Instar III**

xvi + 47 halaman + 7 tabel + 12 gambar + 19 lampiran

ABSTRAK

Latar belakang penelitian ini adalah Demam Berdarah Dengue (DBD) merupakan masalah kesehatan masyarakat yang serius di Indonesia, ditandai dengan tingginya angka kejadian setiap tahunnya. Penggunaan larvasida kimia seperti abate untuk mengendalikan populasi vektor nyamuk *Aedes aegypti* kerap menimbulkan efek samping berupa resistensi dan pencemaran lingkungan. Tujuan dari penelitian ini adalah untuk menguji efektivitas ekstrak etanol daun alpukat muda (*Persea americana*) sebagai larvasida alami terhadap larva nyamuk *Aedes aegypti* instar III. Penelitian ini menggunakan rancangan acak lengkap (RAL) dengan variasi konsentrasi ekstrak 0,5%, 1%, 1,5%, 2%, dan 2,5%, serta kontrol positif (abate) dan kontrol negatif (*aquadest*). Hasil uji menunjukkan bahwa semakin tinggi konsentrasi ekstrak, semakin tinggi angka kematian larva, dengan konsentrasi 2,5% didapatkan kematian paling banyak, Nilai LC_{50} sebesar 9.556% dan LT_{50} dicapai dalam waktu 7.893 jam. Hasil uji Anova menunjukkan perbedaan signifikan ($p < 0,05$) karena didapatkan nilai signifikan sebesar ($p = 0.000$), dan terdapat perubahan morfologi larva seperti perubahan warna tubuh serta kerusakan pada kepala, thoraks, dan abdomen. Kandungan metabolit sekunder seperti flavonoid, saponin, alkaloid, dan tanin dalam daun alpukat muda diduga berperan dalam aktivitas larvasida. Dengan demikian, ekstrak etanol daun alpukat muda efektif sebagai larvasida alami terhadap larva *Aedes aegypti* instar III.

Kata Kunci : DBD, Larvasida, Ekstrak etanol, Daun Alpukat Muda
(*Persea americana*), Larva *Aedes aegypti*
Daftar Bacaan : 47 (2008-2024)

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Effectiveness Test of Ethanol Extract of Young Avocado Leaves (Persea americana) as a Natural Larvicide Against Instar III Aedes aegypti Mosquito Larvae

xvi + 47 pages + 7 table + 12 figure + 19 attachments

ABSTRACT

The background of this study is that Dengue Hemorrhagic Fever (DHF) is a serious public health problem in Indonesia, characterized by high incidence rates every year. The use of chemical larvicides such as abate to control the population of Aedes aegypti mosquito vectors often causes side effects in the form of resistance and environmental pollution. The purpose of this study was to test the effectiveness of ethanol extract of young avocado leaves (Persea americana) as a natural larvicide against instar III Aedes aegypti mosquito larvae. This study used a completely randomized design (CRD) with variations in extract concentrations of 0.5%, 1%, 1.5%, 2%, and 2.5%, as well as positive controls (abate) and negative controls (aquadest). The test results showed that the higher the concentration of the extract, the higher the mortality rate of larvae, with a concentration of 2.5% the most deaths were obtained, the LC₅₀ value was 9,556% and LT₅₀ was achieved in 7,893 hours. The results of the Anova test showed a significant difference ($p < 0.05$) because a significant value of ($p = 0.000$) was obtained, and there were changes in larval morphology such as changes in body color and damage to the head, thorax, and abdomen. The content of secondary metabolites such as flavonoids, saponins, alkaloids, and tannins in young avocado leaves is thought to play a role in larvicidal activity. Thus, the ethanol extract of young avocado leaves is effective as a natural larvicide against instar III Aedes aegypti larvae.

Keywords : DBD, Larviside, Ethanol extract, Young Avocado Leaves (Persea americana), Aedes aegypti Larvae

Reference : 47 (2008-2024)