

ABSTRAK

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Program Studi : Farmasi
Judul : Uji Aktivitas Larvasida Ekstrak Etanol Daun Sirih (*Piper betle* Linn.) Terhadap Larva *Aedes aegypti*

Sirih (*Piper betle* Linn.) merupakan tanaman yang daunnya mengandung senyawa alkaloid, flavonoid, tanin, dan saponin yang berpotensi sebagai larvasida. Tujuan penelitian ini adalah untuk mengetahui aktivitas larvasida ekstrak etanol daun sirih (*Piper betle* Linn.) terhadap larva *Aedes aegypti*. Penelitian ini dilakukan secara ekstraksi dengan metode maserasi dan menggunakan pelarut etanol 96%, uji aktivitas dilakukan pada 210 larva yang dibagi dalam 7 kelompok yaitu ekstrak etanol daun sirih dengan konsentrasi 0,25%; 0,5%; 0,75%; 1%; dan 1,25%. Temephos 0,01% sebagai kontrol positif dan aquadest sebagai kontrol negative, masing-masing perlakuan diamati adanya kematian larva dan dihitung dalam tiap 1 jam selama 24 jam, kemudian dihitung nilai LC_{50} dan LT_{50} menggunakan metode analisis *Kruskal Wallis* dan probit. Hasil penelitian menunjukkan ekstrak etanol daun sirih mempunyai aktivitas larvasida terhadap larva *Aedes aegypti* dengan nilai $LC_{50} = 0,11\%$ pada jam ke-2 dan LT_{50} 1 jam 43 menit.

Kata kunci: Larvasida, *Aedes aegypti*, daun sirih

ABSTRACT

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Study Program: Pharmacy

Title : Larvicidal Activity Test of Betel Leaf Ethanol Extract (*Piper betle* Linn.) Against *Aedes aegypti* Larvae

Betel (*Piper betle* Linn.) is a plant whose leaves contain alkaloids, flavonoids, tannins, and saponins which have the potential as larvicides. The purpose of this study was to determine the larvicidal activity of the ethanol extract of betel leaf (*Piper betle* Linn.) against larvae *Temples of the Egyptians*. This research was carried out by extraction by maceration method and using 96% ethanol solvent, activity test was carried out on 210 larvae which were divided into 7 groups namely ethanol extract of betel leaf with a concentration of 0.25%; 0.5%; 0.75%; 1%; and 1.25%. Temephos 0.01% as a positive control and aquadest as a negative control, each treatment was observed for larval death and counted every 1 hour for 24 hours, then the LC value was calculated₅₀ and LT₅₀ using analytical methods *Kruskal Wallis* and probit. The results showed that the ethanol extract of betel leaves had larvicidal activity against larvae *Temples of the Egyptians* with LC values₅₀ = 0.11% at the 2nd hour and LT₅₀ 1 hour 43 minutes.

Keywords: Larvicidal, *Aedes aegypti*, betel leaf