

# Uji Efektivitas Ekstrak Daun Pandan Wangi (*Pandanus Amaryllifolius Roxb*) Terhadap Mortalitas Larva *Aedes aegypti*

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## ABSTRAK

Demam Berdarah Dengue (DBD) merupakan masalah kesehatan dunia dengan angka kejadian kasus tertinggi. Upaya penurunan kasus DBD melalui pengendalian vektor DBD dengan larvasida. Daun pandan wangi mengandung senyawa metabolit sekunder seperti saponin, flavonoid, alkaloid yang mempunyai efek larvasida terhadap larva *Ae. aegypti*. Desain penelitian yang digunakan adalah eksperimental. Sampel penelitian menggunakan ekstrak daun pandan wangi. Terdapat 4 konsentrasi yaitu 0,2%, 0,4%, 0,6%, 0,8% dan 1 kontrol negatif. Metode yang digunakan adalah *bioassay* yaitu 20 ekor larva dimasukkan dalam kontainer dan diinkubasi selama 24 jam, setelah itu dihitung jumlah larva yang mati. Berdasarkan hasil uji *Kruskal-wallis* ( $P = 0,000$ ) menunjukkan terdapat perbedaan antara kelompok konsentrasi ekstrak daun pandan wangi terhadap mortalitas larva *Ae. aegypti*. Hasil uji *Mann-Whitney* menunjukkan bahwa terdapat perbedaan efektivitas antara setiap konsentrasi yang dibandingkan dan larutan kontrol. Hasil uji analisis Probit menunjukkan nilai  $LC_{50}$  dan  $LC_{90}$  adalah 0,171% dan 0,577%. Berdasarkan hasil penelitian ini, ekstrak daun pandan wangi memiliki efektivitas larvasida terhadap mortalitas larva *Ae. aegypti*

**Kata Kunci** : Ekstrak Daun Pandan, *Aedes aegypti*, Larvasida

**EFFECTIVITY TEST OF PANDAN LEAVES EXTRACT (*Pandanus Amaryllifolius Roxb*) TOWARD MORTALITY OF *Aedes aegypti* LARVA**

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**ABSTRACT**

Dengue hemorrhagic fever (DHF) is a global health problem with incidence highest cases. Efforts to reduce dengue cases with dengue vector control with larvicides. Fragrant pandan leaves contain secondary metabolites such as saponins, flavonoids, alkaloids that have the effect of larvicides against larvae of *Ae. aegypti*. The study design used was experimental. The research sample using fragrant pandan leaf extract. There are four groups, namely the concentration of 0.2%, 0.4%, 0.6%, 0.8% and 1 negative controls. The method used a bioassay is 20 larvae fed into the container and incubated for 24 hours, after which it is calculated the number of dead larvae. Based on the result of the *Kruskal-Wallis* test ( $P = 0,000$ ) has put forward the menu there is a difference between the concentration of fragrant pandan leaf extract on mortality of larvae *ae. aegypti*. *Mann-Whitney* test result show that there is a difference in effectiveness between each concentration are compared and the control solution. The test results showed probit analysis  $LC_{50}$  and  $LC_{90}$  values are 0.171% and 0.577%. Based on these results fragrant pandan leaf extract has larvicidal efficacy against larval mortality *Ae. Aegypti*.

**Keywords** : *Pandan Leaf, Aedes aegypti, Larvicide*