

**EFEKTIVITAS EKSTRAK KASAR ETANOL DAUN ZODIA
(*Evodia suaveolens* (scheff)) TERHADAP LARVA NYAMUK *Aedes aegypti*
(Diptera: Culicidae) DI NAGARI KOTO BARU SIMALANGGANG,
KABUPATEN LIMA PULUH KOTA**

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ABSTRAK

Demam berdarah *dengue* (DBD) merupakan penyakit yang disebabkan virus *dengue* dan ditularkan nyamuk *Aedes aegypti*. Penelitian ini bertujuan mengetahui potensi alami ekstrak daun zodia sebagai biolarvasida terhadap nyamuk *Ae. aegypti* dan status kerentanan larva nyamuk *Ae. aegypti* terhadap *temephos* 0,012 mg/L konsentrasi diagnosa WHO 2016. Larva diambil dari Nagari Koto Baru Simalanggang, Kabupaten Lima Puluh Kota. Dalam penelitian ini larva *Ae. aegypti* diberi perlakuan ekstrak daun zodia dengan konsentrasi 0%, 0,125%, 0,25%, 0,5%, dan *temephos* 0,012 mg/L. Hasil menunjukkan persentase kematian berturut-turut dari perlakuan ekstrak daun zodia konsentrasi 0%, 0,125%, 0,25%, 0,5% sebesar 0%, 8%, 54%, dan 95% dan diperoleh nilai LC_{50} dan LC_{90} 24 jam 0,26% dan 0,42%. Perbedaan perlakuan yang diberikan mempengaruhi persentase kematian larva *Ae. aegypti* karena kandungan toksik setiap perlakuan yang berbeda. Ekstrak daun zodia dengan konsentrasi 0,5% efektif sebagai biolarvasida *Ae. aegypti* dengan nilai LT_{50} 8,4 jam dan LT_{90} 17 jam. Larva nyamuk *Ae. aegypti* telah resisten terhadap *temephos* 0,012 mg/L dengan persentase mortalitas 1%.

Kata Kunci :*Biolarvasida, Demam Berdarah Dengue, Lethal Concentration, Lethal Time, Resisten*



ABSTRACT

Dengue hemorrhagic fever (DHF) is caused virus which transmitted by the *Aedes aegypti* mosquito. This research aimed to reveal the potency of raw extract of zodia leaves as biolarvacide on larvae of *Ae. aegypti* and to know the vulnerability status of the larvae of *Ae. Aegypti*. to temephos 0.012 mg/L. Larvae samples were collected from Nagari Koto Baru Singgalang, Regency of Lima Puluh Kota. In this research, the larvae of *Ae. aegypti* were treated with extract of zodiac leaves rendered on 0,000%, 0,125%, 0,250%, 0,500% concentration in addition to temephos 0,012 mg/L. The result showed mortality percentage on each concentration of zodia leaves extract as follow; 0%, 8%, 54% and 95%, which determined the value of LC_{50} and LC_{90} on 24 hours as 0,26% and 0,42%. Different treatment affects the mortality rate of larvae as there was difference on toxicity level. Zodia leaves extract with 0,500% concentration is proven effective as biolarvacide on *Ae. aegypti* with LT_{50} value 8,4 hours and LT_{90} 17 hours. In the other hand, larvae of *Ae. aegypti* have become resistant to temephos 0,012%, with mortality percentage 1%.

Keywords: *Biolarvacide, Dengue Haemoragic Fever, Lethal Concentration, Lethal Time, Resistant*

