

**UJI EFEKTIVITAS EKSTRAK DAUN RASAMALA (*Altingia excelsa*)
SEBAGAI LARVASIDA NYAMUK *Culex* sp.**

ABSTRAK

Latar Belakang : Nyamuk *Culex* sp. merupakan vektor yang membawa cacing filaria penyebab penyakit filariasis, beberapa wilayah di Indonesia masih menjadi endemis filariasis. Upaya untuk mengurangi angka filariasis adalah dengan mengendalikan vektor, salah satunya dengan larvasida. Larvasida kimia dapat merusak ekosistem setempat, sehingga diperlukan larvasida alami yang ramah lingkungan dan efektif mematikan larva nyamuk *Culex* sp., yaitu dengan tanaman rasamala (*Altingia excelsa*).

Tujuan : Mengetahui efektivitas ekstrak daun rasamala sebagai larvasida nyamuk *Culex* sp..

Metode : Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) studi *post test only with control group design* dengan enam kelompok perlakuan yaitu kontrol positif (Abate), kontrol negatif (Etil asetat), dan kelompok perlakuan diberi ekstrak daun rasamala (2%,3%,4%, dan 5%). Perlakuan menggunakan 25 larva instar III/IV *Culex* sp. dengan pengulangan 4 kali. Analisis dilakukan secara univariat dan bivariat berupa uji normalitas, uji *Kruskall-Wallis*, uji *post hoc* dan uji probit.

Hasil : Persentase kematian larva setelah diberi perlakuan selama 24 jam termasuk kontrol positif terdapat 100% larva mati dan kontrol negatif 0% larva mati. Hasil uji *Kruskal-Wallis* menunjukkan terdapat perbedaan rata-rata kematian larva *Culex* sp. dengan nilai signifikan *p-value* <0,05 ($p < 0,001$) dilanjut dengan uji *post hoc* didapatkan antara kontrol negatif dengan setiap konsentrasi memiliki perbedaan bermakna. Hasil Uji probit menunjukkan LC_{50} sebesar 0,63% dan LT_{50} tercepat pada konsentrasi 5% yaitu 0,9 jam atau 54 menit.

Kesimpulan : Ekstrak daun rasamala memiliki efektivitas sebagai larvasida nyamuk *Culex* sp.

Kata Kunci : Altingia excelsa, Culex sp., Daun Rasamala, Larvasida

The Effectiveness Test of Rasamala leaf (*Altingia excelsa*) As *Culex* sp. Larvicidal

ABSTRACT

Background : *Culex* sp. mosquitoes is a vector that carries the filarial worms caused a filariasis disease, which remains endemic in several regions of Indonesia. Vector control through the use of larvacide is one of the efforts to reduce the incidence of filariasis. However, the use of chemical larvacides can harm the local ecosystem, which necessitates the development of natural larvacides that are environmentally friendly and effective in killing *Culex* sp. mosquito larvae, such as Rasamala leaves (*Altingia excelsa*).

Objective : To determine the effectiveness of Rasamala leaf extract as a larvacide against *Culex* sp. mosquito larvae.

Method : The research used a Completely Randomized Design (CRD) with a post test only control group design, involving six treatment groups : positive control (Abate), negative control (Ethyl acetate), and four concentrations of *Altingia excelsa* leaf extract (2%,3%,4%, and 5%). Each treatment group consisted of 25 instar larvae III/IV *Culex* sp., with four replications. The data were analyzed using normality test, *Kruskal-Wallis* test, post hoc test, and probit analysis.

Result : The results showed that all treatment groups, including the positive control, achieved 100% larvae mortality 24 hours after treatment, and the negative control group showing 0% mortality. *Kruskal-Wallis* analysis indicated a significant difference in the average mortality rate of *Culex* sp. larvae with p-value $<0,05$ ($p=0,001$), followed by post hoc test which showed significant differences between the negative control and each concentration. Probit analysis showed an LC_{50} equals to 0,63%, and LT_{50} with the fastest at 5% concentration which was 0,9 hours or 54 minutes.

Conclusion : Rasamala leaf extract is effective as larvacide against *Culex* sp. mosquito larvae.

Keywords : *Altingia excelsa*, *Culex* sp, Larvacide, Rasamala Leaf