

Efektivitas Infusa Daun Mahkota Dewa (*Phaleria macrocarpa*) Terhadap Kematian Larva *Aedes* sp

Heni Nur Khikmah¹, Tulus Ariyadi², Budi Santosa³

1. Program Studi DIII Analis Kesehatan Fakultas Ilmu Keperawatan dan Kesehatan Universitas Muhammadiyah Semarang
2. Laboratorium Biologi Molekuler Fakultas Ilmu Keperawatan dan Kesehatan Universitas Muhammadiyah Semarang

ABSTRAK

Nyamuk *Aedes* sp (*Aedes aegypti* dan *Aedes albopictus*) merupakan vektor penyakit Demam Berdarah Dengue (DBD) yang disebabkan oleh virus dengue. Upaya pengendalian *Aedes* sp melalui pemberantasan larva nyamuk dengan pemberian larvasida. Larvasida alami mampu diuraikan alam dan lebih ramah lingkungan dengan menggunakan infusa daun mahkota dewa (*Phaleria macrocarpa*). Daun mahkota dewa mengandung alkaloid, saponin, flavonoid, dan polifenol berfungsi sebagai racun perut dan racun pernafasan. Tujuan penelitian untuk mengetahui efektivitas infusa daun mahkota dewa pada konsentrasi 0% (kontrol), 25%, 50%, 100% terhadap kematian larva *Aedes* sp

Jenis penelitian adalah eksperimen murni dengan *Randomized post test only control group design*. Menggunakan 625 larva *Aedes* sp, yang dibagi menjadi 1 kelompok kontrol dan 4 kelompok uji. Konsentrasi 25%, 50%, 75%, 100% (infusa daun mahkota dewa). Dilakukan pengulangan 6 kali masing-masing media uji berisi 25 ekor larva *Aedes* sp instar III dihitung kematian setelah kontak 24 jam. Data dianalisis menggunakan uji statistik yaitu uji *kruskal wallis*.

Hasil penelitian pada larutan uji infusa daun mahkota dewa konsentrasi 25%, 50%, 75% dan 100% diperoleh rerata kematian larva *Aedes* sp 5, 10, 13, 21 ekor. Hasil uji statistik didapatkan nilai ($p=0,000$) karena ($p=0,005$) maka hasil tersebut signifikan. Sehingga dapat disimpulkan bahwa semakin tinggi konsentrasi semakin efektif membunuh larva *Aedes* sp.

Kata kunci : infusa, daun mahkota dewa, *Aedes* sp

The Effectiveness of Infuse of Mahkota Dewa Leaf (*Phaleria macrocarpa*) to Death Larvae of *Aedes* Sp

Heni Nur Khikmah¹, Tulus Ariyadi², Budi Santosa³

1. D III Study Program Health Analyst Faculty of Nursing and Health University of Muhammadiyah Semarang
2. Laboratory of Molecular Biology of Health Analyst, Faculty of Nursing and Health, Muhammadiyah University of Semarang

ABSTRACT

Aedes Egypt and *Aedes Albopictus* mosquito, is a vector of dengue fever, called (DBD) caused by dengue virus. Control effort of *Aedes* Sp through eradication of mosquito larvae with giving a chemical larvicide. A natural larvicide is capable of natural and environmentally-friendly disentangled by using Mahkota dewa leaf infusion. *Phaleria macrocarpa*, commonly known as Mahkota dewa contain alkaloid, saponins, flavonoids, and polifenol serves as a stomach and respiratory toxin. The aim of this research is to know the effectiveness of infuse of Mahkota Dewa leaf concentrate 0%, 25%, 50%, 100% to death of *Aedes* Sp.

Type of this research is pure experiment with Randomized post test only control group design. Used 625 larvae *Aedes* Sp, then categorize one group control and 4 group test. Concentrate 25%, 50%, 75%, 100% (*Phaleria macrocarpa* infusion). Repeated 6 times each test medium containing 25 larvae of the third instar *Aedes* Sp is calculated mortality after 24 hours of contact. Data were analyzed using statistical tests are *Kruskal Wallis* test.

The result research of infusion test on mahkota dewa leaf concentrate 25%, 50%, 75%, 100% obtained the average death of *Aedes* Sp larvae 5.10, 13, 21 tails. Statistical test results obtained value ($p=0,000$) cause of ($p=0,005$) then the result are significant. It can be concluded that the higher the concentration the more effective killed larvae *Aedes* Sp.

Keywords : Infusion, Mahkota dewa leaf, *Aedes* Sp.