

**POLITEKNIK KESEHATAN TANJUNGPUR**  
**JURUSAN KESEHATAN LINGKUNGAN**  
Laporan Tugas Akhir, Mei 2023

**HERLYANA DEVITA**

Uji Ekstrak dan Serbuk Daun Salam (*Syzygium polyanthum*) Dalam Membunuh Larva Nyamuk *Aedes aegypti* Instar III.

xvi + 53 Halaman, 8 Tabel, 6 Lampiran, 5 Gambar dan 3 Grafik.

**ABSTRAK**

Demam berdarah *dengue* (DBD) adalah penyakit yang disebabkan oleh virus *dengue* yang ditularkan oleh vektor *Aedes sp.* Salah satu solusi sederhana yang dilakukan untuk pengendalian vektor adalah menggunakan insektisida alami seperti daun salam. Daun salam dipilih sebagai alternatif larvasida, karena tanaman ini telah dikenal luas dikalangan masyarakat disamping itu daun salam mengandung senyawa yang dapat membunuh serangga. Tujuan penelitian ini untuk mengetahui kemampuan ekstrak daun salam (*Syzygium polyanthum*) dalam membunuh larva *Aedes aegypti*.

Penelitian dilakukan di Laboratorium Jurusan Kesehatan Lingkungan Penelitian ini dilakukan selama 2 jam per 15 menit, sampel 960 larva. Konsentrasi 0%, 10%, 15%, 20% dengan 6 kali replikasi.

Hasil penelitian pada konsentrasi 10% ekstrak 74,17% larva mati pada menit 120, pada serbuk tidak ada larva mati sampai menit 120, pada konsentrasi 15% ekstrak semua larva mati pada menit 105, pada serbuk 2,5% larva mati pada menit 120, pada konsentrasi 20% ekstrak semua larva mati pada menit 60, pada serbuk 1,33% larva mati pada menit 120. Konsentrasi yang paling efektif dalam membunuh larva nyamuk *Aedes aegypti* yaitu pada konsentrasi ekstrak 20% dalam waktu 60 menit. Disarankan untuk peneliti selanjutnya dilakukan penelitian lebih lanjut mengenai cara menghilangkan warna pada air yang diberi ekstrak daun salam dan menaikkan konsentrasi serbuk.

Kata Kunci : Daun Salam, Larva *Aedes aegypti*, Konsentrasi  
Daftar Bacaan : 2008-2021

**HEALTH POLYTECHNIC OF TANJUNGPUR**  
**DEPARTMENT OF ENVIRONMENTAL HEALTH**  
Final Assignment Report, May 2023

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Test of Bay Leaf Extract and Powder (*Syzygium polyanthum*) in Killing *Aedes aegypti* Instar III Mosquito Larvae.

xvi + 53 Pages, 8 Tables, 6 Attachments, 5 Figures and 3 Graphs.

**ABSTRACT**

*Dengue* hemorrhagic fever (DHF) is a disease caused by the *dengue* virus which is transmitted by the vector *Aedes sp.* One simple solution for vector control is to use natural insecticides such as bay leaves. Bay leaves were chosen as an alternative to larvicides, because this plant is widely known among the public, besides that bay leaves contain compounds that can kill insects. The purpose of this study was to determine the ability of bay leaf extract (*Syzygium polyanthum*) to kill *Aedes aegypti* larvae.

The research was conducted at the Laboratory of the Department of Environmental Health. This research was conducted for 2 hours per 15 minutes, with a sample of 960 larvae. Concentration 0%, 10%, 15%, 20% with 6 replications.

The results of the study at a concentration of 10% extract 74.17% of the larvae died in 120 minutes, in the powder no larvae died until 120 minutes, at a concentration of 15% extract all the larvae died in 105 minutes, in the powder 2.5% the larvae died in 120 minutes, at a concentration of 20% extract all larvae died at 60 minutes, at 1.33% powder the larvae died at 120 minutes. The most effective concentration in killing *Aedes aegypti* mosquito larvae was at a concentration of 20% extract within 60 minutes. It is recommended for future researchers to carry out further research on how to remove color in water that is given bay leaf extract and increase the concentration of the powder.

Keyword : Bay Leaf, *Aedes aegypti* Larvae, Concentration  
Reading List : 2008-2021