

POLITEKNIK KESEHATAN TANJUNGPUR

JURUSAN KESEHATAN LINGKUNGAN

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Uji Efektivitas Ekstrak Daun Pandan Wangi (*Pandanus amaryllifolius*) Dalam Membunuh Larva Nyamuk *Aedes aegypti* Instar III

xvi + 51 Halaman, 4 Tabel, 6 Lampiran, 6 Gambar dan 1 Grafik.

ABSTRAK

Demam Berdarah *Dengue* (DBD) adalah penyakit yang ditularkan oleh virus *dengue* melalui vektor nyamuk *Aedes aegypti*. Penularan dicegah melalui pemutusan rantai pada fase larva nyamuk *Aedes aegypti*, menggunakan bahan alami sebagai larvasida, dilakukan pengendalian vektor dengan menggunakan insektisida alami seperti daun pandan wangi. Daun pandan wangi dipilih sebagai alternatif yang dapat membunuh larva. Tujuan penelitian ini untuk mengetahui kemampuan ekstrak daun pandan wangi (*Pandanus amaryllifolius*) dalam membunuh larva *Aedes aegypti*.

Penelitian dilakukan di Laboratorium Jurusan Kesehatan Lingkungan. Penelitian ini dilakukan selama 2 jam per 15 menit, sampel 480 larva. Kosentrasi 0%, 20%, 25%, 30%, 35%, 40% dengan 4 kali replikasi. Pada kosentrasi 0% (kontrol) tidak terdapat kematian larva *Aedes aegypti*, kosentrasi 20%, 25%, 30%, 35 %,40% kematian larva 100%.

Hasil penelitian pada kosentrasi kosentrasi 20% semua larva mati pada menit 75, pada kosentrasi 25% semua larva mati pada menit 60, pada kosentrasi 30% semua larva mati pada menit 45, pada kosentrasi 35% semua larva mati pada menit 30, pada kosentrasi 40% semua larva mati pada menit 15. Kosentrasi yang paling efektif dalam membunuh larva nyamuk *Aedes aegypti* yaitu pada kosentrasi 40%. Disarankan untuk peneliti selanjutnya dilakukan penelitian lebih lanjut mengenai cara menghilangkan warna pada air yang diberi ekstrak daun pandan wangi.

Kata Kunci : Daun Pandan Wangi, Larva *Aedes aegypti*, Kosentrasi

Daftar Bacaan : 2003-2021

HEALTH POLYTECHNIC OF TANJUNGPUR
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Test the Effectiveness of Pandan Wangi Leaf Extract (*Pandanus amaryllifolius*) in Killing *Aedes aegypti* Instar III Mosquito Larvae

xvi + 51 Pages, 4 Tables, 6 Appendices, 6 Pictures and 1 Graph.

ABSTRACT

Dengue Hemorrhagic Fever (DHF) is a disease transmitted by the *dengue* virus through the *Aedes aegypti* mosquito vector. Transmission is prevented by breaking the chain in the larval phase of the *Aedes aegypti* mosquito, using natural materials as larvicides, vector control is carried out using natural insecticides such as fragrant pandan leaves. Fragrant pandan leaves were chosen as an alternative that can kill the larvae. The purpose of this study was to determine the ability of pandanus leaf extract (*Pandanus amaryllifolius*) 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, a sample of 480 larvae. Concentration 0%, 20%, 25%, 30%, 35%, 40% with 4 replications. At concentrations of 0% (control) there was no death of *Aedes aegypti* larvae, concentrations of 20%, 25%, 30%, 35%, 40% larvae mortality 100%.

The results of the study at a concentration of 20% all larvae died at 75 minutes, at a concentration of 25% all larvae died at 60 minutes, at a concentration of 30% all larvae died at 45 minutes, at a concentration of 35% all larvae died at 30 minutes, at a concentration of 40% of all larvae died in 15 minutes. The most effective concentration in killing *Aedes aegypti* mosquito larvae was at a concentration of 40%. It is recommended for future researchers to carry out further research on how to remove color in water that is given fragrant pandan leaf extract.

Keyword : Pandan Wangi Leaf, *Aedes aegypti* Larvae, Concentration
Reading List : 2003-2021