

**POLITEKNIK KESEHATAN TANJUNG KARANG JURUSAN
KESEHATAN LINGKUNGAN**

Laporan Tugas Akhir, Mei 2024

LUTHFIYAH KARINA PUTRI

Uji Efektivitas Ekstrak Daun Pepaya (*Cacira Papaya L.*) Dalam Membunuh Larva Nyamuk *Aedes Aegypti*

XIII + 67 Halaman, 4 Tabel, 4 Lampiran , 10 Gambar dan 1 Grafik

RINGKASAN

Demam berdarah *dengue* (DBD) adalah penyakit yang disebabkan oleh virus *dengue* yang tergolong *Arthropod-Borne*, genus *Flavivirus*, dan famili *Flaviviridae*. Salah satu solusi sederhana yang dapat dilakukan untuk pengendalian vektor adalah dengan menggunakan insektisida alami seperti daun pepaya. Daun Pepaya dipilih sebagai alternatif larvasida, karena tanaman ini telah dikenal luas dikalangan masyarakat disamping itu daun papaya mengandung senyawa yang dapat membunuh serangga. Tujuan penelitian ini adalah untuk mengetahui kemampuan ekstrak daun pepaya dalam membunuh larva nyamuk *Aedes Aegypti* instar III

Penelitian ini merupakan penelitian eksperimental yang bertujuan untuk mengetahui kemampuan ekstrak daun pepaya (*Cacira Papaya L.*) dalam membunuh larva nyamuk *Aedes Aegypti*. Penelitian dilakukan di Laboratorium Jurusan Kesehatan Lingkungan. Penelitian terhadap kematian larva *Aedes Aegypti* dilakukan selama 3 jam (per 5 menit), sampel penelitian 640 larva. Pada dosis 0%/100 mL yaitu sebagai kontrol tidak ada larva *Aedes Aegypti* yang mati. Untuk dosis 30%/100 mL terdapat larva *Aedes Aegypti* yang mati karena penambahan ekstrak daun pepaya dengan 16 kali replikasi.

Hasil pengamatan pada konsentrasi 30% semua larva mati, pada menit ke 5 larva mati 11 ekor, pada pada menit ke 10 larva mati 44 ekor, pada menit ke 15 larva mati 130 ekor, pada menit ke 20 larva mati 211 ekor, pada menit ke 25 larva mati 290 ekor, pada menit 30 seluruh larva mati. Penelitian selanjutnya melakukan penelitian dengan mengkominasi antara batang dan akar untuk membunuh larva namuk *Aedes Aegypti*

Kata kunci : Daun Pepaya, Larva *Aedes Aegypti*, Konsentrasi
Daftar Bacaan : 2013-2023

HEALTH POLYTECHNIC OF TANJUNGPUR DEPARTMENT OF ENVIRONMENTAL HEALTH

Final Assignment Report, Mei 2024

LUTHFIYAH KARINA PUTRI

Testing The Effectiveness Of Papaya Leaf Extract (*Cacira Papaya L.*) In Killing *Aedes Aegypti* Mosquito Larvae

XIII, 67 Pages, 4 Tables, 4 Appendices, 10 Pictures and 1 Graph

ABSTRACT

Dengue hemorrhagic fever (DHF) is a disease caused by the *dengue* virus belonging to the Arthropod-Borne family, the Flavivirus genus, and the Flaviviridae family. One simple solution that can be done for vector control is to use natural insecticides such as papaya leaves. Papaya leaves were chosen as an alternative larvicide, because this plant is widely known among the public besides that papaya leaves contain compounds that can kill insects. The aim of this study was to determine the ability of rambutan leaf extract to kill instar III *Aedes aegypti* mosquito larvae.

This research is an experimental study which aims to determine the ability of papaya leaf extract (*Cacira Papaya L.*) to kill *Aedes aegypti* mosquito larvae. The research was conducted at the Environmental Health Department Laboratory. Research on the death of *Aedes Aegypti* larvae was carried out for 3 hours (every 5 minutes), with a research sample of 640 larvae. At a dose of 0%/100 mL, namely as a control, no *Aedes Aegypti* larvae died. For a dose of 30%/100 mL, there were *Aedes Aegypti* larvae that died due to the addition of rambutan leaf extract with 16 replications

The results of observations at a concentration of 30% all larvae died, in the 5th minute 11 larvae died, in the 10th minute 44 larvae died, in the 15th minute 130 larvae died, in the 20th minute 211 larvae died, in the 25th minute 290 larvae died. At 30 minutes all the larvae died. The next research carried out research by combining stems and roots to kill *Aedes Aegypti* mosquito larvae.

Keyword : Papaya Leaves, *Aedes Aegypti* Larvae, Concentration

Reading List : 2013-2023