

ABSTRAK

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POTENSI EKSTRAK DAUN MENGGKUDU (*Morinda citrifolia*L) SEBAGAI REPELLENT NYAMUK *Aedes aegypti*

xvii+ 58 Halaman + 9 gambar + 7 tabel + 8 lampiran

Penyakit DBD ditularkan oleh nyamuk *Aedes aegypti* setiap tahun terjadi di wilayah Indonesia. Cara untuk menghindarinya dengan menggunakan repellen, repellen yang dijual dipasaran terutama bahan kimia sintetik, sehingga perlu mencari bahan alami yang aman, mudah dan murah hindari gigitan nyamuk, salah satunya adalah ekstrak daun mengkudu (*Morinda citrifolia* L.). Penelitian ini bertujuan menganalisis potensi ekstrak daun mengkudu (*Morinda citrifolia* L.) sebagai repellen terhadap nyamuk *Aedes aegypti*.

Penelitian ini menggunakan desain penelitian post test only control design dengan konsentrasi 12,5%,25% dan 37,5%, menggunakan 25 nyamuk *Aedes aegypti* per perlakuan. Banyaknya perlakuan untuk penelitian ini yaitu 4 perlakuan dan pengulangan sebanyak 6 kali. Variabel yang diteliti yaitu daya tolak nyamuk *Aedes aegypti* terhadap ekstrak daun mengkudu. Data dianalisis dengan Uji Anova One Way dan uji Phos Hoc dengan tingkat signifikansi 0,05 ($p=0,05$) dan taraf kepercayaan 95% ($= 0,05$) serta uji probit untuk mengetahui konsentrasi paling efektif.

Hasil penelitian nyamuk *Aedes aegypti* hinggap setidaknya selama 6 jam, yaitu ekstrak daun mengkudu konsentrasi 37,5% dengan rata-rata hinggap 2,5 ekor. Konsentrasi ekstrak daun mengkudu 37,5% menurut standar Komite Pestisida (1995), daya proteksi rata-rata 6 jam adalah 90,86%.

Saran untuk penelitian selanjutnya dapat digunakan nyamuk lain seperti *Culex quinquefasciatus* dan *Anopheles*, Kemungkinan efek samping saat menggunakan ekstrak daun mengkudu dalam jangka waktu panjang serta penambahan gelling agent sebagai alternative dalam peningkatan daya proteksi selama 6 jam.

Kata kunci :Daya Tolak, Konsentrasi, Ekstrak Daun Mengkudu, *Aedes aegypti*, Proteksi

Daftar Pustaka :35 (5 Buku, 28 Jurnal, 1 WHOPES)

ABSTRACT

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POTENTIAL OF NONI LEAF EXTRACT (*Morinda citrifolia* L) AS *Aedes aegypti* MOSQUITO REPELLENT

xvii+ 58 pages + 9 Images + 7 Tables + 8 Appendices

Dengue fever contagious by the *Aedes aegypti* mosquito occurs annually in several places in Indonesia. To avoid this is to use repellent, which is generally made from chemical synthetic substances and easy to find on the market. The discovery of a natural substance that is eco-friendly, easy to get, and inexpensive to prevent mosquito bites is one of the inventions in this present study in the use of Mengkudu leaf extract (*Morinda citrifolia* L.). This research aims to analyze the potency of Mengkudu leaf extract (*Morinda citrifolia* L.) as a repellent for *Aedes aegypti* mosquitoes.

This present research conducted Post-Test only control type of research design with 12,5%, 25%, and 37,5% concentrate use *Aedes aegypti* in the amount of 25 in each attempt. There are 4 attempts in this research including 6 times of re-attempt. The observed variable in this research is *Aedes aegypti* repellency towards Mengkudu leaf extract. The data analyzed applied three variances of statistics which are One Way Annova and Post Hoc test with 0,05 significance level ($p=0,05$), Confidence Interval 95% ($\alpha = 0,05$), and Probit Analysis to identify effectiveness concentrate.

Research results revealed that *Aedes aegypti*, on the 6 hours of observation alight in minimal amounts on Mengkudu extract leaf with 37,5% proven that 2,5 mosquitoes alight on average. Theoretically, 37,5% Mengkudu extracts leaf concentrate appropriately with the standard of pesticide commission (1995) within 90,86 % protection capacity for 6 hours.

Further research recommendations are to take other types of mosquitoes such as *Culex quinquefasciatus* and *Anopheles*, the side effects that can occur in the use of Mengkudu leaf extract for the long-term, and the gelling agent addition as an increased alternative to the potential protection for 6 hours.

Keyword: Repellency, Concentration, Mengkudu Leaf Extract, *Aedes aegypti*, Protection

Bibliography: 35 (5 Books, 28 Journals, 1 WHOPES)