ABSTRACT

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THE POTENCY OF WULUH STARFRUIT (*Averrhoa bilimbi L.*) EXTRACT AS A REPELLENT FOR *Aedes aegypti* MOSQUITO YEARS OF 2017

viii + 53 pages + 7 tables + 9 images + 5 attachments

Dengue Hemorrhagic Fever (DHF) is a contagious disease that can make a death. One effort to overcome the DHF vector is to use repellent, but *repellent* has active ingredient *diethyltoluamide* (DEET) which is toxic and corrosive material. Therefore, it is necessary to use the natural material that have mosquito *repellent* activity, one of them using extract of wuluh starfruit (*Averrhoa bilimbi L.*).

This study aims to determine the potential of wuluh starfruit extract with consentrations of 20%, 30%, and 40% in the form of spray and calculate the duration of protection against in tabular form and analyzed by *Kruskal-Wallis* test.

The results showed that there were differences in the number of contacted mosquitoes in right hand in the control group and the test group. The average of ontacted mosquitoes in the control group were 9 tiles, the 20% test group were 4 tiles with the duration of protection for abut 2 minutes, the 30% test group were 2 tiles with te duration of protection for about 1 hours, and the 40% test group were 2 tiles with the duration of protection for about 2 hours.

From this research, it is concluded that the consentration of wuluh starfruit extract wich has the best potency that is 40% concentration because that can give protection power more than 90% to mosquitoes test. But it has not been to be effective because it's only give for about 2 hours of protective duration. That need to be further research that is test of starfruit extract potency to other type of mosquito with addition of fixative material

Keywords : Wuluh starfruit, repellent, Aedes aegypti
Reading List : 12 Books (2002 – 2016)
13 Journals (2007 - 2016)

ABSTRAK

Kementerian Kesehatan RI
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POTENSI EKSTRAK BELIMBING WULUH (*Averrhoa bilimbi L.*) SEBAGAI *REPELLENT* BAGI NYAMUK *Aedes aegypti* TAHUN 2017

viii + 53 halaman + 7 tabel + 9 gambar + 5 lampiran

Demam Berdarah Dengue (DBD) merupakan penyakit menular yang dapat menyebabkan kematian. Salah satu upaya penanggulangan vektor DBD adalah dengan menggunakan *repellent*, namun *repellent* memiliki bahan aktif *diethyltoluamide* (*DEET*) yang merupakan bahan beracun dan bersifat korosif. Karenanya, diperlukan pemanfaatan bahan alam yang memiliki aktivitas *repellent* nyamuk, salah satunya menggunakan ekstrak belimbing wuluh (*Averrhoa bilimbi L.*).

Penelitian ini bertujuan untuk mengetahui potensi ekstrak belimbing wuluh dengan konsentrasi 20%, 30%, dan 40% dalam bentuk spray serta menghitung lama waktu perlindungan (proteksi) terhadap nyamuk *Aedes aegypti*. Data hasil percobaan disajikan dalam bentuk tabel dan dilakukan analisis dengan uji *Kruskal-Wallis.*

Hasil analisis menunjukkan ada perbedaan jumlah nyamuk yang kontak pada tangan kanan di kelompok kontrol dan kelompok uji. Rata-rata nyamuk yang kontak pada kelompok kontrol sebanyak 9 ekor, kelompok uji 20% sebanyak 4 ekor dengan lama perlindungan 2 menit, kelompok uji 30% sebanyak 2 ekor dengan lama perlindungan 1 jam, dan kelompok uji 40% sebanyak 2 ekor dengan lama perlindungan 2 jam.

Dari penelitian ini, disimpulkan bahwa konsentrasi ekstrak belimbing wuluh yang memiliki potensi paling baik yaitu konsentrasi 40% karena mampu memberikan daya proteksi lebih dari 90% terhadap nyamuk uji. Namun belum dikatakan efektif karena hanya memberikan lama perlindungan selama 2 jam. Yang perlu menjadi penelitian selanjutnya yaitu uji potensi ekstrak belimbing wuluh terhadap nyamuk jenis yang lain dengan penambahan bahan fiksatif.

Kata Kunci : Belimbing wuluh, repellent, *Aedes aegypti*
Daftar Bacaan : 12 buku (2002-2016)
13 jurnal (2007-2016)