INTISARI

Latar Belakang : Nyamuk *Ae. aegypti* merupakan vektor penular penyakit demam berdarah. Untuk mengurangi jumlah populasi nyamuk *Ae. aegypti* maka perlu dihambat proses oviposisi nyamuk. Beberapa penelitian menunjukkan bahwa ekstrak daun matoa memiliki senyawa metabolit yang berpotensi sebagai antioviposisi. Belum ada penelitian yang menunjukkan efek antioviposisi ekstrak daun matoa terhadap nyamuk *Ae. aegypti*.
Tujuan : Mengetahui efek antioviposisi ekstrak etanol daun matoa (*Pometia pinnata)* terhadap nyamuk *Ae. aegypti*.
Metode : Penelitian ini merupakan penelitian eksperimental. Subjek penelitian berupa nyamuk betina *Ae. aegypti*. Kelompok penelitian dibagi menjadi 2, yaitu kelompok 1 kontrol pembanding, kelompok 2 perlakuan dengan berbagai konsentrasi yaitu 100 ppm, 200 ppm, 300 ppm, 400 ppm, dan 500 ppm. Pemberian perlakuan diamati selama 72 jam setelah itu dihitung jumlah telur masing-masing ovitrap. Data yang didapatkan dianalisa dengan uji *independent sample T test* dan dianalisa menggunakan formula *Effective repellency (%ER)* dan *Oviposition active index* (*OAI*).
Hasil :. Ekstrak etanol daun matoa dapat menurunkan jumlah telur yang diletakkan oleh nyamuk *Ae. aegypti*. Perbandingan jumlah telur pada ovitrap perlakuan dengan kontrol menunjukkan hasil tidak signifikan (*p-value >0,05)* . Ektrak etanol daun matoa pada konsentrasi 100,200,300, 400 dan 500 ppm memiliki hasil %ER sebesar 21,71%; 27,24%; 34,94%; 56,38%; 66,44% dan *OAI* sebesar -0,12; -0,15; -0,21; -0,39; -0,49. Semakin tinggi konsentrasi nilai *%ER* semakin besar, sedangkan nilai *OAI* semakin negatif.
Kesimpulan : Ekstrak etanol daun matoa *(Pommetia pinnata)* memiliki efek sebagai antioviposisi terhadap nyamuk betina *Ae. aegypti* pada konsentrasi 400 ppm (*ER*=56,38%; *OAI*=-0,39) dan 500 ppm (*ER*=66,4%; *OAI*=-0,49).

Kata Kunci : daun matoa, antioviposisi, *Aedes aegypti*.

ABSTRACT

Background : *Ae. aegypti* mosquito is a contagious vector of dengue fever. To reduce the population of *Ae. aegypti*, it is necessary to inhibit mosquito oviposition. Several studies have shown that matoa leaf extract has metabolite compounds that have the potential as oviposition deterrent. There have been no studies showing the oviposition deterrent effect of matoa leaf extract against *Ae. aegypti.*

Research Objectives : To know the oviposition deterrent effect effect of matoa leaf (*Pometia pinnata*) ethanolic extract against *Ae.aegypti*.

Research Method : This research is an experimental research. Research subjects were female mosquitoes *Ae. aegypti*. The study group was divided into 2, namely group 1 comparison control, group 2 treatment with various concentrations of 100 ppm, 200 ppm, 300 ppm, 400 ppm, and 500 ppm. The treatment was observed for 72 hours after the number of eggs of each ovitrap was calculated. The data obtained were analyzed by independent sample T test and analyzed using the Effective repellency (% ER) formula and Oviposition active index (OAI).

Result : Ethanol extract of matoa leaves can reduce the number of eggs placed by Ae. aegypti. Comparison of the number of eggs in ovitrap treatment with controls showed no significant results (p-value> 0.05). The ethanol extract of matoa leaves at a concentration of 100,200,300, 400 and 500 ppm has a % ER result of 21.71%; 27.24%; 34.94%; 56.38%; 66.44% and OAI of -0.12; -0.15; -0.21; -0.39; -0.49. The higher the concentration of the value of %ER, the greater the value, while the OAI value becomes more negative.

Conclusion : Ethanol extract of matoa leaf (Pommetia pinnata) has an antioviposition effect on female mosquitoes Ae. aegypti at a concentration of 400 ppm (ER = 56.38%; OAI = -0.39) and 500 ppm (ER = 66.4%; OAI = -0.49).

Keyword : matoa leaf, oviposition deterrent, *Aedes aegypti*.