INTISARI

Latarbelakang: Demam Berdarah Dengue (DBD) adalah penyakit yang ditularkan oleh nyamuk *Aedes aegypti*. Penyakit ini merupakan masalah kesehatan yang cukup serius di Negara beriklim tropis. Larvisida sintetis efektif untuk mengendalikan vector penyakit ini, namun penggunaan yang terus-menerus dapat menimbulkan resistensi. Tanaman Jeruk Nipis *(Citrus aurantifolia)* merupakan tanaman yang berpotensi memiliki daya larvisida, dengan kandungan aktifnya yaitu alkaloida dan limonoida.

Tujuan: Mengetahui daya larvisida daun jeruk nipis dilihat dari LC_{50} dan LC_{90} serta hubungan antara penambahan konsentrasi ekstrak dan jumlah kematian larva.

Metode: Penelitian ini menggunakan metode eksperimental murni laboratorium. Digunakan 330 sampel larva *Aedes aegypti* instar III-IV, dibagi menjadi 11 kelompok uji, yaitu 0 ppm (kontrol), 1,000 ppm, 2,000 ppm, 3,000 ppm, 4,000 ppm, 5,000 ppm, 6,000 ppm, 7,000 ppm, 8,000 ppm, 9,000 ppm, dan 10,000 ppm. Masing-masing kelompok berisi 10 ekor larva dalam 100 ml ekstrak ethanol daun jeruk nipis. Dilakukan replikasi 3 kali. Data yang diperoleh dari pengamatan kematian larva *Aedesa egypti* selama 24 jam. Data dianalisis dengan analisa dan grafik regresi probit.

Hasil: LC_{50} dan LC_{90} ekstrak ethanol daun jeruk nipis berturut-turut didapatkan hasil 1212,914 ppm dan 3851,924 dengan respon larva yang heterogenitas bermakna.

Kesimpulan: Ekstrak ethanol daunjeruknipis (*Citrus aurantifolia*) memiliki efek larvisida terhadap larva *Aedes aegypti* namun tidak efektif karena dosis terlalu tinggi, Penambahan konsentrasi ekstrak ethanol daun jeruk nipis (*Citrus aurantifolia)* yang sedikit dapat meningkatkan mortalitas larva *Aedes aegypti*.

Kata kunci: Larvisida, *Aedes aegypti*, *Citrus aurantifolia*

ABSTRACT

Background : Dengue Hemorrhagic Fever (DHF) is a disease transmitted by *Aedes aegypti* mosquito. This disease is a serious problem in tropical countries. Synthetic larvicidal is effective to control the disease vectors, but the use of persistent can lead to resistence. Lime *(Citrus aurantifolia)* is a plant that has the potential of larvicides, with the active content of alkaloids and limonoida.
Purpose : Finding out the larvacides effect from lime leaves, seen from the LC_{50} and LC_{90}. As well as the correlation between the addition of extract concentration and larval mortality.
Method : This study uses a true experimental laboratory. 330 samples of *Aedes aegypti* larvaeinstar III-IV are used for this experiment. Divided into 11 groups of experiment, which is 0 ppm (control), 1,000 ppm, 2,000 ppm, 3,000 ppm, 4,000 ppm, 5,000 ppm, 6,000 ppm, 7,000 ppm, 8,000 ppm, 9,000 ppm, and 10,000 ppm. Eachcontainer was given 100 ml ethanol lime leavesextract solution, contained 10 larvas and replicatedthree times. The result of experiment are fromobservation of the mortalities of the larvae in 24hours. Probit analized are used.
Result : LC_{50} and LC_{90} of ethanol extracts of lime leaves showed 1212,914 ppm and 3851,924 ppm that had significant larva response.
Conclusion : Ethanol extract of the lime leaves *(Citrus aurantifolia)* has the effect of larvicides against *Aedes aegypti* larvae, it is not effective because the dose is just too high. Increasing concentration of ethanol extract of the lime leaves can increase the mortality of *Aedes aegypti*.
Keywords : Larvicide, *Aedes aegypti*, *Citrus aurantifolia*