ABSTRAK

Devina Yunizar Rafif
POTENSI AIR PERASAN DAUN ALPUKAT *(Persea americana)* SEBAGAI BIOLARVASIDA *CULEX SP*
xiv + 68 Halaman + 5 Tabel + 4 Lampiran

Daun alpukat memiliki efektivitas dalam menyebabkan kematian larva *Aedes aegypti*. Namun terdapat kelemahan signifikan dalam aplikasinya, yaitu ekstrak atau air perasan daun alpukat cenderung membuat air menjadi keruh. Kondisi ini menjadi masalah karena larva *Aedes aegypti* tidak dapat tumbuh dan berkembang di air yang tercemar. Berbeda dengan larva *Aedes aegypti*, larva *Culex sp* mampu tumbuh dan berkembang secara optimal di lingkungan air yang tercemar atau kotor. Penelitian ini dimaksudkan untuk mengeksplorasi potensi air perasan daun alpukat *(Persea americana)* sebagai biolarvasida *Culex sp*.

Jenis penelitian adalah eksperimental, dengan rancangan penelitian *post test only control group design*. Obyek penelitian adalah larva *Culex quinquefasciatus* instar III sebanyak 20 ekor setiap perlakuan. Konsentrasi air perasan daun alpukat yang digunakan yaitu 2,5%, 5%, 7,5%, 10%, dan kontrol negatif 0% (air aquades) dilakukan replikasi sebanyak 6 kali. Data dianalisis secara analitik dengan uji *Anova, Post-Hoc Bonferroni,* dan uji probit.

Tingkat kematian larva *Culex sp* pada konsentrasi 2,5%, 5%, 7,5%, dan 10% didapatkan hasil yaitu 12%, 29%, 70%, dan 92%. Uji *Anova* menunjukkan adanya minimal 1 pasang perbedaan pada konsentrasi air perasan daun alpukat (p=0,000). Uji *Post-Hoc Bonferroni* didapatkan bahwa pasangan konsentrasi yang tidak menunjukkan perbedaan hanya pada konsentrasi 2,5% dengan 5%. Nilai LC_{50} air perasan daun alpukat yaitu 2,638%.

Kesimpulan dari penelitian ini bahwa air perasan daun alpukat *(Persea americana)* berpotensi sebagai biolarvasida *Culex sp.* Disarankan untuk melakukan penelitian lanjutan mengenai efektivitas dan mekanisme kerja air perasan daun alpukat serta pengujian di lapangan untuk aplikasi praktis.

Kata kunci : *Culex sp,* larvasida, daun alpukat
Daftar bacaan : 69 Jurnal + 8 Buku

ABSTRACT

Devina Yunizar Rafif
POTENTIAL OF AVOCADO LEAF EXTRACT (Persea americana) AS A BIOLARVICIDE FOR CULEX SP
xiv + 68 *Pages* + 5 *Tables* + 4 *Appendices*

Avocado leaves have been found effective in causing mortality in Aedes aegypti larvae. However a significant drawback in their aplication was that the extract or juice of avocado leaves tended to make the water cloudy. This condition posed a problem because Aedes aegypti larvae could not grow and develop in polluted water. Unlike Aedes aegypti larvae, Culex sp larvae are able to grow and develop optimally in polluted or dirty water environments. This study was intended to explore the potential of avocado leaf juice (Persea americana) as a biolarvicide against Culex sp.

The type of research was experimental, using a post-test only control group design. The research subjects were third instar larvae of Culex quinquefasciatus, with 20 larvae used for each treatment. The concentration of avocado leaf extract used were 2,5%, 5%, 7,5%, 10%, and a negative control 0% (distilled water), with each treatment replicated six times. The data were analytically analyzed using Anova, Bonferroni Post-Hoc test, and probit analysis.

The larval mortality rates off Culex sp at concentrations of 2.5%, 5%, 7.5%, and 10% were 12%, 29%, 70%, and 92%, respectively. The quantities of avocado leaf extract varied at least one pairwise, according to the Anova test. ($p = 0.000$). The Bonferroni Post-Hoc test revealed that the only concentration pair with no significant difference was between 2.5% and 5%. The treatment with avocado leaf extract had an LC50 value of 2.638%.

According to the study's findings, avocado leaf extract (Persea americana) could be used as a biolarvicide to control Culex sp. It was suggested that more research be done to examine the avocado leaf extract's efficacy and mode of action, as well as field testing for real-world use.

Keywords : Culex sp, larvicide, avocado leaves
References : 69 Journals + 8 Books