

UJI EFEKTIVITAS EKSTRAK DAUN PACAR AIR (*Impatiens balsamina*) TERHADAP MORTALITAS LARVA *Aedes aegypti*

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Abstrak

Larvasida alami bisa dijadikan alternatif baru pengganti larvasida sintetik untuk mengendalikan vektor Demam Berdarah *Dengue* (DBD), salah satunya daun pacar air (*Impatiens balsamina*). Kandungan fitokimia dari daun pacar air yaitu Alkaloid, Saponin, Tanin, Flavonoid, dan Steroid yang merupakan senyawa metabolit sekunder dan bersifat larvasida. Penelitian ini bertujuan untuk mengetahui efek ekstrak daun pacar air sebagai larvasida *Aedes aegypti*. Desain penelitian ini yaitu eksperimental yang berisi 6 kelompok perlakuan, terdiri dari; kontrol negatif (aquades 100ml), kontrol positif (abate 1%), dan kelompok perlakuan dengan varian konsentrasi (0,25%; 0,50%; 0,75%; 1%). Setiap kelompok berisi 25 larva dalam 100ml larutan ekstrak dengan 4 kali pengulangan. Uji yang digunakan adalah uji *one-way ANOVA* dan uji *post-hoc Bonferroni*. Hasil dari uji *one-way ANOVA* menunjukkan nilai p 0,00 dan uji *post-hoc Bonferroni* yaitu tidak terdapat perbedaan antara konsentrasi 1% dengan kontrol positif, sementara itu terdapat perbedaan antara konsentrasi 0,25%;0,50% dan 0,75% dengan kontrol negatif. Hal tersebut dikarenakan kandungan senyawa metabolit sekunder pada daun pacar air yang bekerja secara simultan membunuh larva *Aedes aegypti* instar III/IV. Kesimpulan, daun pacar air efektif membunuh larva dengan kematian larva tertinggi pada konsentrasi 1%.

Kata Kunci : *Aedes aegypti*, Daun pacar air (*Impatiens balsamina*), Larvasida

TEST EFFECTIVENESS OF PACAR AIR LEAF EXTRACT (*Impatiens balsamina*) for MORTALITY OF LARVAE *Aedes aegypti*

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Abstract

Natural larvicide can be used as a new alternative to synthetic larvicide to control the Dengue Hemorrhagic Fever (DHF) vector, one of which was pacar air leaf (Impatiens balsamina). Phytochemical content of pacar air leaves were Alkaloids, Saponins, Tannins, Flavonoids, and Steroids which were secondary metabolites and larvicidal compounds. This study aimed to determine the effect of pacar air leaf extract as Aedes aegypti larvicide. The design of this research was experimental which contains 6 treatment groups, consisting of; negative control (100 ml aquades), positive control (abate 1%), and the treatment group with variant concentrations (0.25%; 0.50%; 0.75%; 1%). Each group contained 25 larvae in 100 ml extract solution with 4 repetitions. The test used was the one-way ANOVA test and the Bonferroni post-hoc test. The results of the one-way ANOVA test showed p value of 0.00 and the post-hoc Bonferroni test that there was no difference between the concentration of 1% with positive control, while there was a difference between concentrations of 0.25% 0.50% and 0.75% with negative controls. That was because the content of secondary metabolites in pacar air leaves that works simultaneously kill the larvae of Aedes aegypti instar III/IV. Conclusion, pacar air leaves effectively kill larvae with the highest larva mortality at a concentration of 1%.

Keywords: *Aedes aegypti, Larvaside, Pacar air leaf (Impatiens balsamina).*