

**PERBANDINGAN EFEKTIVITAS PEMBERIAN BUBUK ABATE
DENGAN PEMBERIAN EKSTRAK ETHANOL DAUN JERUK NIPIS
(*Citrus aurantifolia*) TERHADAP MORTALITAS LARVA *Aedes spp***

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ABSTRAK

Latar Belakang: Abate memiliki efek toksik pada organisme hidup dan lingkungan. Perlu dilakukan usaha untuk mendapatkan larvasida alami untuk mengurangi resistensi dan dampak negatif abate. Ekstrak ethanol daun jeruk nipis (*Citrus aurantifolia*) diduga memiliki efek untuk membunuh larva *Aedes spp*.

Tujuan: Membandingkan keefektifan ekstrak ethanol daun jeruk nipis (*Citrus aurantifolia*) dengan bubuk abate terhadap larva nyamuk *Aedes spp*.

Metode: Penelitian ini menggunakan desain eksperimental *post test only with control*. Objek percobaan berupa larva nyamuk *Aedes spp*. instar III dan IV. Objek menjadi 3 kelompok : Kelompok A (Kontrol), Kelompok B (bubuk abate 1g dalam 1 liter air), dan Kelompok C (ekstrak ethanol daun jeruk nipis (*Citrus aurantifolia*) dengan dosis 100 mg dalam 1 liter air).

Hasil: Uji *post hoc Mann-Whitney* menunjukkan kelompok ekstrak ethanol daun jeruk nipis (*Citrus aurantifolia*) pada waktu pengamatan 48 jam paling signifikan lainnya ($p < 0,05$). Kelompok bubuk abate signifikan pada waktu pengamatan 24 ($p < 0,05$).

Kesimpulan: Terdapat perbedaan efektivitas bubuk abate dengan ekstrak ethanol daun jeruk nipis (*Citrus aurantifolia*) terhadap mortalitas larva nyamuk *Aedes spp*. Abate memiliki presentase 100% dan ekstrak ethanol daun jeruk nipis memiliki presentase 73% dalam membunuh larva *Aedes spp*. Sehingga bubuk Abate lebih efektif membunuh larva *Aedes spp*.

Kata Kunci: abate, *Citrus aurantifolia*, *Aedes spp*.

Comparative Effectiveness of Abate Powder with Ethanol Citrus Leaf Extract (*Citrus aurantifolia*) on *Aedes spp.* Larvae Mortality

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ABSTRACT

Background: Abate has a toxic effect on living organisms and the environment . Effort should be made to obtain natural larvicides to reduce resistance and negative effects of abate. Ethanol citrus leaf extract (*Citrus aurantifolia*) allegedly have the effect of killing the larvae of *Aedes spp.* .

Objective: To compare the effectiveness of abate powder dose of 1 g per 1 L water with ethanol citrus leaf extract (*Citrus aurantifolia*) dose of 100 mg per 1 L water against *Aedes spp.* larvae mortality.

Method: This study used an experimental design post-test only with control. The object of the experiment was in the form of *Aedes spp* larvae, third and fourth instars. The objects were divided into 3 groups: Group A (control), Group B (1 g abate powder in 1 L water), Group C (100 mg ethanol citrus leaf extract in 1 L water).

Result: Post hoc Mann-Whitney test showed that the group of ethanol citrus leaf extract (*Citrus aurantifolia*) at least 48 hours of observation time more significant ($p<0.05$). Group of abate powder was significant at the time of observation 24 ($p<0.05$).

Conclusion: There are differences in the effectiveness of abate powder with ethanol citrus leaf extract (*Citrus aurantifolia*) on mortality of larvae of *Aedes spp.* Abate has a percentage of 100% and ethanol citrus leaf extract has a percentage of 73% in killing the larvae of *Aedes spp.* Abate powder more effective in killing the larvae of *Aedes spp.*

Keyword: abate, *Citrus aurantifolia.*, *Aedes spp.*