# STATUS KERENTANAN *AEDES AEGYPTI* VEKTOR DEMAM BERDARAH DENGUE DI KOTA PADANG

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## ABSTRAK

Penyakit DBD masih merupakan salah satu masalah kesehatan masyarakat hingga saat ini. Salah satu upaya untuk mengurangi kasus DBD adalah dengan pengendalian vektor DBD dengan insektisida. Pengendalian dapat dilakukan pada stadium nyamuk dewasa maupun larva. Temephos merupakan salah satu insektisida yang telah digunakan lebih dari 30 tahun dan berfungsi mengendalikan larva vektor. Penggunaan temephos yang tidak sesuai aturan dapat menyebabkan penurunan kerentanan pada vektor DBD

Penelitian ini menggunakan *post test only with control group design* dan bertujuan untuk menilai status kerentanan larva *Aedes aegypti* di tiga kecamatan di Kota Padang. Telur diambil dan dipelihara di laboratorium hingga mencapai larva instar III/IV. Uji kerentanan untuk temephos dilakukan berdasarkan standar WHO.

Hasil penelitian menunjukkan pada Kecamatan Kuranji, kematian larva pada konsentrasi 0,005 mg/L sebesar 10%, 0,01 mg/L sebesar 45%, 0,02 mg/L sebesar 86%, dan pada konsentrasi 0,03 mg/L sebesar 100%. Pada Kecamatan Koto Tangah, kematian larva pada konsentrasi 0,005 mg/L sebesar 24%, 0,01 mg/L sebesar 48%, 0,02 mg/L sebesar 99%, dan pada konsentrasi 0,03 mg/L sebesar 100%. Pada Kecamatan Padang Timur pada konsentrasi 0,005 mg/L didapatkan kematian larva sebesar 12%, pada 0,01 mg/L sebesar 43%, pada 0,02 mg/L sebesar 99%, dan pada 0,03 mg/L sebesar 100%. Hasil uji *One way-Anova* adalah bermakna dengan nilai $P<0,05$ pada ketiga kecamatan dan $LC_{99}$ sedikit diatas 0,02 mg/L.

Kesimpulan dari penelitian ini adalah status kerentanan *Aedes aegypti* terhadap temephos di tiga kecamatan berkisar antara rentan dan toleran, belum mencapai resisten sehingga temephos masih dapat digunakan dalam pengendalian vektor DBD.

Kata kunci : DBD, Kerentanan, *Aedes aegypti,* Temephos

# VULNERABILITY STATUS VECTOR *AEDES AEGYPTI* AS DENGUE HEMORRHAGIC FEVER VECTOR IN PADANG CITY

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## ABSTRACT

Dengue hemorrhagic fever is still one public health problem until today. One effort to reduce dengue cases is with dengue vector control with insecticides. The control can be performed both on the stage of adult mosquitoes and larvae. Temephos is one of the insecticide and has been used for more than 30 years and serves to control the vector larvae. The use of temephos that do not fit the rules can lead to decreased susceptibility to the vector of dengue.

This study uses a post-test only with control group design and aims to assess the susceptibility status of Aedes aegypti in three districts in Padang City. The eggs were taken and maintained in the laboratory until it reach to the stage of $3^{rd}/4^{th}$ instar larvae. This Susceptibility test of temephos is based on WHO standards.

The results showed in the District of Kuranji, larval mortality at a concentration of 0.005 mg / L were 10%, 0.01 mg / L were 45%, 0.02 mg / L were 86%, and at a concentration of 0.03 mg / L were 100%. On Koto Tangah District, larval mortality at a concentration of 0.005 mg / L were 24%, 0.01 mg / L were 48%, 0.02 mg / L were 99%, and at a concentration of 0.03 mg / L were 100%. In the Padang Timur District, at a concentration of 0.005 mg / L obtained larval mortality by 12%, at 0.01 mg / L were 43%, to 0.02 mg / L were 99%, and at 0.03 mg / L were 100% , The test results One-way ANOVA was significant with a P value <0.05 in the three districts and $LC_{99}$ slightly above 0.02 mg / L.

The conclusion of this study is the susceptibility status of Aedes aegypti to temephos in three districts ranged between susceptible and tolerant, yet still achieve temephos resistant so can be used in vector control of dengue.

Keywords : DHF, Susceptibility, *Aedes aegypti,* Temephos