

PERBEDAAN ANGKA FEKUNDITAS DAN FERTILITAS NYAMUK *Aedes aegypti*
PADA PEMAJANAN ANTI NYAMUK AEROSOL, BAKAR DAN ELEKTRIK
BERBAHAN AKTIF D-ALLETHRIN

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Demam berdarah adalah penyakit disebabkan infeksi virus DEN yang dibawa nyamuk *Aedes aegypti* dan *Aedes albopictus* betina. Nyamuk *Aedes aegypti* betina memegang peranan lebih dominan dalam penyebaran penyakit demam berdarah daripada nyamuk *Aedes albopictus* karena kesukaannya tinggal dalam rumah. Berbagai upaya pengendalian penyakit demam berdarah dilakukan. Salah satunya penggunaan anti nyamuk. Beberapa penelitian menyebutkan telah terjadi penurunan jumlah telur yang dihasilkan nyamuk *Aedes aegypti* setelah pemajanan insektisida kimia. Tujuan penelitian adalah untuk menganalisis perbedaan angka fekunditas dan fertilitas nyamuk *Aedes aegypti* pada pemajanan anti nyamuk aerosol, bakar dan elektrik berbahan aktif *d-allevhrin*. Jenis penelitian adalah eksperimen dengan rancangan penelitian post test only control group design. Populasi penelitian adalah seluruh nyamuk dewasa *Aedes aegypti* betina berumur 2-3 hari yang berhasil ditetaskan di laboratorium. Sampel berjumlah 240 ekor nyamuk dewasa *Aedes aegypti* betina berumur 2-3 hari. Uji normalitas data menggunakan uji *Kolmogorov smirnov*. Analisis data diuji dengan *One Way Anova*. Hasil penelitian menunjukkan rata-rata angka fekunditas nyamuk *Aedes aegypti* hasil pemajanan anti nyamuk aerosol sebesar 38,37 dan angka fertilitas 22,43 ; 40,07 dan 21,6 pada pemajanan anti nyamuk bakar serta 51,03 dan 34 pada pemajanan anti nyamuk elektrik. Terdapat perbedaan signifikan antara angka fekunditas nyamuk *Aedes aegypti* hasil pemajanan anti nyamuk elektrik dengan angka fekunditas nyamuk *Aedes aegypti* kontrol ($p = 0,002$), anti nyamuk aerosol ($p = 0,005$) dan anti nyamuk bakar ($p = 0,014$). Tidak terdapat perbedaan signifikan antara angka fertilitas nyamuk *Aedes aegypti* hasil pemajanan anti nyamuk aerosol, anti nyamuk bakar dan anti nyamuk elektrik dengan angka fertilitas nyamuk *Aedes aegypti* kontrol.

Kata Kunci: *Aedes aegypti*, fekunditas, fertilitas, anti nyamuk, *d-allevhrin*

THE DIFFERENCE BETWEEN FECUNDITY AND FERTILITY RATE OF AEDES AEGYPTI IN THE EXPOSURE OF AEROSOL, COIL AND ELECTRIC ANTI MOSQUITO WITH D-ALLETHRIN ACTIVE INGREDIENT

Dengue fever is disease caused by DEN virus infection that brought by female of Aedes aegypti and Aedes albopictus mosquito. Female of Aedes aegypti mosquito have more more dominat part in spreading of dengue disease than female of Aedes albopictus mosquito because its bionomics remain in house. Various operation effort of dengue disease was done. One of them is anti mosquito usage. Some research mentioned that had happened fecundity and fertility decrease of Aedes aegypti mosquito after chemical insecticide exposure. The purpose of this research was to analyse the difference between fecundity and fertility rate of Aedes aegypti in the exposure of aerosol, coil and electric anti mosquito with d-allethrin active ingredient. Experimental with post test only control group design was used. Population were all adult female of Aedes aegypti mosquito that had 2-3 days old that survive incubated in laboratory. Samples were 240 adult female of Aedes aegypti mosquito that had 2-3 days old. Data normality was tested by Kolmogorov smirnov test and analysed by One Way Anova. Result of this research showed that fecundity mean rate of Aedes aegypti mosquito in aerosol exposure is 38,37 and fertility mean rate is 22,43 ; 40,07 and 21,6 in coil exposure ; 51,03 and 34 in electric exposure. There are significant difference between fecundity rate of Aedes aegypti mosquito that exposed electric with fecundity rate of control Aedes aegypti ($p = 0,002$), aerosol ($p = 0,005$) and coil ($p = 0,014$) There are no significant difference between fertility rate of Aedes aegypti that exposed aerosol, coil and electric with fertility rate of control Aedes aegypti.

Keyword : Aedes aegypti, fecundity, fertility, anti mosquito, d-allethrin