

**PENENTUAN STATUS RESISTENSI NYAMUK VEKTOR DENGUE DI DAERAH ENDEMIS DEMAM BERDARAH DENGUE DI YOGYAKARTA TERHADAP INSEKTISIDA MALATION DENGAN METODE *CDC BOTTLE BIOASSAY***

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INTISARI

**Latar Belakang.** Demam Berdarah Dengue (DBD) adalah penyakit menular yang masih menjadi masalah kesehatan utama di Indonesia, termasuk di Daerah Istimewa Yogyakarta (DIY). Penggunaan insektisida merupakan metode paling efektif dalam pemberantasan DBD. Malation merupakan insektisida yang sudah digunakan sejak tahun 1974 di Yogyakarta. Beberapa spesies nyamuk termasuk *Aedes aegypti* dilaporkan telah resisten terhadap malation. Pengkajian status resistensi nyamuk *Ae. aegypti* terhadap malation perlu dilakukan di daerah endemis DBD sebagai dasar perencanaan program penanggulangan DBD. Pada penelitian ini akan dilakukan pengkajian status resistensi nyamuk *Ae. aegypti* dari daerah Plosokuning-Minomartani, Depok, Sleman, DIY, yang merupakan salah satu daerah endemis DBD di DIY terhadap malation.

**Tujuan.** Menentukan status resistensi nyamuk vektor DBD (*Ae. aegypti*) di daerah Plosokuning-Minomartani, Depok, Sleman, DIY terhadap insektisida malation.

**Metode.** Penelitian ini merupakan penelitian Kuasi eksperimental dengan rancangan *Posttest Only Control Group Design*, dan status resistensi nyamuk diuji dengan menggunakan metode *CDC Bottle Bioassay*.

**Hasil.** Dalam penelitian didapatkan angka kematian pada waktu diagnosis dan dosis diagnosis sampel nyamuk *Ae. aegypti* dari RT 24 sebesar 49,3%, RT 25 sebesar 77,3%, dan Laboratorium Parasitologi FK UGM sebesar 94,7%.

**Simpulan.** Nyamuk *Ae. aegypti* dari daerah Plosokuning-Minomartani, Depok, Sleman, DIY resisten terhadap insektisida malation, dan status resistensi nyamuk *Ae. aegypti* yang diambil dari Laboratorium Parasitologi FK UGM perlu dikonfirmasi lagi.

**Kata kunci.** demam berdarah dengue, *Aedes aegypti*, resistensi, malation, *CDC bottle bioassay*

DETERMINATION OF RESISTANCE STATUS ON DENGUE VECTOR MOSQUITOES IN ENDEMIC AREA OF DENGUE HEMORRHAGE FEVER IN YOGYAKARTA AGAINST INSECTICIDE MALATHION WITH CDC BOTTLE BIOASSAY METHOD

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ABSTRACT

**Background.** Dengue Hemorrhagic Fever (DHF) is a communicable disease that still become medical problem in Indonesia, include Special Region of Yogyakarta. Insecticide is the most effective method to eradicate DHF. Malathion is an insecticide that had been used since 1974<sup>th</sup> in Yogyakarta. Some of the species of mosquitoes includes *Aedes aegypti* had been reported resistance against malathion. Resistance status of *Ae. aegypti* against malathion need to be evaluated in endemic area of DHF as baseline for DHF eradication program planning. In this research, resistance status of *Ae. aegypti* from Plosokuning-Minomartani, Depok, Sleman, DIY, an endemic area of DHF in DIY against malathion will be evaluated.

**Objective.** Determine resistance status of DHF vector mosquitoes (*Ae. aegypti*) in Plosokuning-Minomartani, Depok, Sleman, DIY against insecticide malathion.

**Method.** This experiment is a quasi experimental with *Posttest Only Control Group Design*, and the resistance of mosquitoes is evaluated with CDC Bottle Bioassay method.

**Results.** In this experiment the number of mortality at diagnose time and diagnose dose in sample that obtain from RT 24 is 49,3%, RT 25 is 77,3%, and Laboratorium Parasitology FK UGM is 94,7%.

**Conclusion.** Sample of *Ae. aegypti* from Plosokuning-Minomartani, Depok, Sleman, DIY resistance against malathion and resistance status of *Ae. aegypti* from Laboratorium Parasitology FK UGM need to be confirmed again.

**Keywords.** dengue hemorrhagic fever, *Aedes aegypti*, resistance, malathion, CDC bottle bioassay