

**PENGARUH EKSTRAK DAUN KEMBANG BULAN
(*Tithonia diversifolia* (Hemsley) A. Gray) TERHADAP MORTALITAS
LARVA NYAMUK
*Aedes aegypti***

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui mortalitas larva nyamuk *Aedes aegypti* dengan pemberian berbagai konsentrasi ekstrak daun kembang bulan (*Tithonia diversifolia* (Hemsley) A. Gray) dan mengetahui efisiensi/tingkat toksisitas ekstrak daun kembang bulan terhadap mortalitas larva nyamuk *Aedes aegypti*. Metode penelitian eksperimental dengan desain Rancangan Bujur Sangkar Latin (RBSL) dengan 5 taraf konsentrasi ekstrak daun Kembang bulan yaitu 0%, 30%, 40%, 50% dan 60% dan 5 kali pengulangan dengan 25 ekor larva tiap bejana dengan jumlah total sampel 600 larva nyamuk. Parameter yang diamati adalah mortalitas larva nyamuk dengan menghitung jumlah larva yang mati selama 24 jam, 48 jam dan 72 jam. Data dianalisis dengan ANAVA kemudian dilanjutkan dengan uji Beda Nyata Terkecil. Teknik pengelolaan data dengan Program SPSS 0.16. Hasil penelitian menunjukkan bahwa ekstrak daun kembang bulan berpengaruh sangat nyata terhadap mortalitas larva nyamuk *Aedes aegypti*. Konsentrasi terendah yang dapat mematikan larva nyamuk adalah 30% selama 24 jam dengan rata-rata mortalitas sebesar 7,8 (31,2%) dan semakin meningkat seiring dengan meningkatnya konsentrasi ekstrak dan lamanya pengamatan. Mortalitas larva nyamuk yang paling tinggi adalah pada konsentrasi 60% selama 24 jam dengan rata-rata mortalitas 25(100%). Konsentrasi ekstrak yang paling efektif dalam mematikan 50% larva nyamuk adalah pada konsentrasi 33.9196% sampai 36.8994% selama 24 jam.

Kata Kunci : Mortalitas Nyamuk, Daun Kembang bulan, *Aedes aegypti*

**THE MORTALITY OF THE MEXICAN SUNFLOWER LEAF EXTRACT
(*Tithonia diversifolia* (Hemsley) A. Gray) ON MORTALITY *Aedes aegypti*
MOSQUE**

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ABSTRACT

The purpose of this research is knowing the level of *Aedes aegypti* mosquito mortality administering in various concentrations of Mexican sunflower extracts and to know the efficiency / toxicity level of the Mexican sunflower (*Tithonia diversifolia* (Hemsley) A. Gray) leaf extract on *Aedes aegypti* mosquito mortality. The method adopted in the research was an experimental with Latin square design (RBSL) with five levels concentration of Mexican sunflower leaf extract, there were 0%, 30%, 40%, 50% and 60% and 5 repetitions with 25 larvae per vessel with total 600 samples of mosquito larvae. The Parameters measured were mortality of mosquito by counting the number of dead larvae for 24 hours, 48 hours and 72 hours. Data were analyzed by ANOVA followed by a Least Significant Difference test. Data management technique by using SPSS 16. The result showed that the leaf extract of the Mexican sunflower has very significant effect on mortality of larvae of the mosquito *Aedes aegypti*. The lowest concentration that can killed the mosquito larvae was in 30% concentration for 24 hours with an average mortality of 7.8 (31.2%) and to be bigger by increasing of concentration of extract and the duration of observation. Mosquito larvae mortality was highest at 60% concentration for 24 hours with an average mortality of 25 (100%). The most effective concentration of extract to be killed 50 % of larvae was at 33.9196% - 36.8994% concentrates for 24 hours.

Keywords: Mortality of Mosquito, Leaves Mexican sunflower, *Aedes aegypti*