

## **PENGARUH DOSIS EKSTRAK DAUN PORANG (*Amorphophallus muelleri* Blume) TERHADAP MORTALITAS LARVA *Aedes aegypti***

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### **ABSTRAK**

Mengingat tingginya kasus Demam Berdarah, dan rendahnya angka bebas jentik maka sangat diperlukan tindakan yang tepat untuk menanganinya. Salah satu cara membasmi jentik nyamuk tanpa menggunakan bahan kimia adalah dengan menggunakan insektisida nabati. Insektisida yang berasal dari tumbuhan atau bagian tumbuhan seperti akar, daun, batang, bunga, kulit kayu, biji, bunga dan buah dikenal sebagai insektisida nabati untuk membunuh larva. Daun porang terdapat kandungan kimia saponin, tannin, alkanoid, dan steroid yang dapat membunuh larva. Penelitian ini bertujuan untuk mengetahui Pengaruh Dosis Ekstrak Daun Porang (*Amorphophallus muelleri* Blume) Terhadap Mortalitas Larva *Aedes aegypti*. Ekstrak daun porang diperoleh dengan cara maserasi

Penelitian ini merupakan penelitian quasi eksperimental menggunakan The Static Group Comparassion Design, yang mana pada design ini terdapat kelompok eksperimen dan kelompok kontrol sama. Larva yang digunakan pada penelitian ini adalah larva *Aedes aegypti* instar III sebanyak 625 larva dibagi menjadi 5 kelompok (0%, 1,2%, 1,4%, 1,6% dan 1,8%) dan dilakukan 5 kali pengulangan serta diamati selama 24 jam.

Hasil penelitian ini menunjukkan bahwa uji probit LC50 sebesar 1,726% dan hasil mortalitas larva *Aedes aegypti* pada dosis 0% sebanyak 0 larva yang mati, dosis 1,2% menyebabkan mortalitas sebanyak 35 ekor, pada dosis 1,4% didapatkan mortalitas sebanyak 45 ekor, pada dosis 1,6% mortalitas sebanyak 56 ekor, dan pada dosis 1,8% menghasilkan mortalitas sebanyak 67 ekor. Uji One-Way Anova bahwa nilai  $p$  0,000 lebih kecil dari  $\alpha = 0,050$  sehingga dapat dikatakan ada perbedaan mortalitas larva nyamuk *Aedes aegypti* dari berbagai variasi dosis ekstrak Daun Porang (*Amorphophallus Muelleri Blume*)

Dapat disimpulkan bahwa Hasil One-Way Anova  $H_0$  ditolak dan  $H_1$  diterima, maka ada perbedaan pengaruh ekstrak Daun Porang (*Amorphophallus Muelleri Blume*) dengan berbagai dosis terhadap mortalitas larva nyamuk *Aedes aegypti*

Kata Kunci : Daun porang (*Amorphophallus muelleri* Blume), Larva, *Aedes aegypti*, Mortalitas,

**EFFECT OF DOSAGE OF PORANG (*Amorphophallus muelleri* Blume)  
LEAF EXTRACT ON MORTALITY OF *Aedes aegypti* larvae**

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**ABSTRACT**

Considering the high number of cases of Dengue Fever, and the low number of free larvae, proper action is needed to handle it. One way to eradicate mosquito larvae without using chemicals is to use vegetable insecticides. Insecticides derived from plants or plant parts such as roots, leaves, stems, flowers, bark, seeds, flowers and fruit are known as vegetable insecticides to kill larvae. Porang leaves contain chemical compounds such as saponins, tannins, alkaloids and steroids which can kill the larvae. This study aims to determine the effect of Porang (*Amorphophallus muelleri* Blume) Leaf Extract Doses on *Aedes aegypti* Larvae Mortality. Porang leaf extract is obtained by maceration

This research is a quasi-experimental study using The Static Group Comparison Design, in which the experimental group and the control group are the same in this design. The larvae used in this study were third instar *Aedes aegypti* larvae as many as 625 larvae were divided into 5 groups (0%, 1.2%, 1.4%, 1.6% and 1.8%) and were repeated 5 times and observed. for 24 hours.

The results of this study showed that the LC50 probit test was 1.726% and the results of mortality of *Aedes aegypti* larvae at a dose of 0% were 0 larvae that died, a dose of 1.2% caused 35 mortality, at a dose of 1.4%, 45 mortality was obtained. at a dose of 1.6%, there were 56 deaths, and at a dose of 1.8%, there were 67 deaths. The One-Way Anova test shows that the value of  $p$  0.000 is less than  $\alpha = 0.050$  so that it can be said that there are differences in the mortality of *Aedes aegypti* mosquito larvae from various doses of Porang Leaf extract (*Amorphophallus Muelleri* Blume)

It can be concluded that the results of the One-Way Anova  $H_0$  are rejected and  $H_1$  is accepted, so there are differences in the effect of Porang Leaf extract (*Amorphophallus Muelleri* Blume) with various doses on the mortality of *Aedes aegypti* mosquito larvae

Keywords : Porang leaf (*Amorphophallus muelleri* Blume), Larvae, *Aedes aegypti*, Mortality,