

POLITEKNIK KESEHATAN TANJUNGPUR
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Skripsi, juli 2022

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Efektivitas Ekstrak Bawang Putih (*Allium sativum L*) Sebagai Larvasida Terhadap Kematian Larva *Aedes aegypti*

xiv+ 40 halaman , 6 tabel ,15 gambar,dan 20 lampiran

ABSTRAK

Demam Berdarah Dengue disebabkan oleh nyamuk *Aedes aegypti*. Upaya penanggulangan DBD dapat dilakukan dengan cara memutus rantai perkembangbiakan nyamuk *Aedes aegypti* sebagai vektornya. Tumbuhan yang dapat digunakan sebagai larvasida nabati adalah bawang putih dengan jenis bawang putih tunggal Bawang putih (*Allium sativum L*) mengandung (*Allicin, garlic oil* dan *flavonoid*) yang memiliki efek larvasida terhadap kematian larva nyamuk *Aedes aegypti*. Tujuan penelitian ini konsentrasi bawang putih tunggal (*Allium sativum L*) yang mampu membunuh larva nyamuk *Aedes aegypti* dengan variasi konsentrasi penelitian adalah *eksperimen*, Desain Penelitian: Rancangan acak lengkap (RAL) dengan konsentrasi 0,5%, 1%, 1,5%, 2%, 2,5% dengan 5 kali pengulangan dan dua kontrol ,yaitu kontrol positif (abate) dan negatif (aquadest). Data diolah menggunakan analisis uji regresi bahwa pengaruh konsentrasi bawang putih tunggal terhadap kematian larva instar III *Aedes aegypti* 96,1% kemudian di lanjutkan uji *one-way Anova* dengan hasil nilai $P = 0,000$ ($P < 0,05$) yang berarti bahwa ada nya perbedaan antar konsentrasi ekstrak terhadap kematian larva instar III *Aedes aegypti* dan uji BNT (Beda Nyata Terkecil) dengan hasil $P < 0,05$ yang menunjukkan terdapat perbedaan yang nyata antar seluruh konsentrasi dan abate dalam kematian larva instar III nyamuk *Aedes aegypti*. Jumlah kematian larva tertinggi pada konsentrasi ekstrak 2,5% dengan presentase 81,6% dalam 12 jam

Kata Kunci :Efektivitas, larva *Aedes aegypti* ,bawang putih (*Allium sativum L*) ekstrakbawang putih

Daftar Bacaan : 31 (2003-2021)

**TANJUNGPUR HEALTH POLYTECHNIC
MEDICAL LABORATORY TECHNOLOGY APPLIED STUDY
PROGRAM**

Thesis, July 2022

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**The Effectiveness of Garlic Extract (*Allium sativum* L) As Larvicide Against
Death of *Aedes aegypti* Larvae**

xiv+ 40 pages, 6 tables, 15 pictures, and 20 attachments

ABSTRACT

Dengue Hemorrhagic Fever is caused by the *Aedes aegypti* mosquito. Efforts to control dengue can be done by breaking the breeding chain of the *Aedes aegypti* mosquito as its vector. Plants that can be used as vegetable larvicides are garlic with a single type of garlic. Garlic (*Allium sativum* L) contains (Allicin, garlic oil and flavonoids) which have a larvicidal effect on the mortality of *Aedes aegypti* mosquito larvae. (*Allium sativum* L) which is able to kill *Aedes aegypti* mosquito larvae with variations in the research concentration is experimental, Research Design: Completely randomized design (CRD) with concentrations of 0.5%, 1%, 1.5%, 2%, 2.5% with 5 repetitions and two controls, namely positive control (abate) and negative control (aquadest). The data was processed using regression analysis that the effect of single garlic concentration on the mortality of the third instar larvae of *Aedes aegypti* was 96.1% and then continued with the one-way Anova test with the results of $P = 0.000$ ($P < 0.05$) which means that there is a difference between extract concentrations on mortality of third instar larvae of *Aedes aegypti* and BNT test (Least Significant Difference) with $P < 0.05$ which indicated that there was a significant difference between all concentrations and abates in mortality of third instar larvae of *Aedes aegypti* mosquitoes. The highest number of larval mortality was at a concentration of 2.5% extract with a percentage of 81.6% in 12 hours

Keywords: Effectiveness, *Aedes aegypti* larvae, garlic (*Allium sativum* L) extract of garlic

Reading List : 31 (2003-2021)