

## ABSTRAK

Demam Berdarah Dengue (DBD) di Indonesia ialah isu medis yang terus meningkat jumlah penderitanya seiring dengan meningkatnya kepadatan penduduk. Pengendalian vektor bisa dilangsungkan secara fisik maupun mekanis, dengan pemanfaatan bahan biotik dan kimiawi. Bawang putih dan bawang merah dapat menjadi opsi sebagai larvasida karena mengandung flavonoid yang berperan menjadi racun pada pernafasan larva nyamuk *Aedes aegypti* dan mengandung allicin yang dapat menghambat sintesis membran larva nyamuk. Penelitian ini menganalisa Perbandingan Efektivitas Infusa Bawang Putih (*Allium sativum*) dan Bawang Merah (*Allium cepa*) Terhadap Larva Nyamuk *Aedes aegypti* yang dilakukan Dinas Kesehatan Provinsi Jawa Timur di bulan Mei 2024. Pada uji infusa bawang putih (*Allium sativum*) didapatkan hasil rata rata kematian dengan konsentrasi 2,5% sebesar 12 ekor (48%), 5% sebesar 14,25 ekor (57%), 7,5% sebesar 18,5 ekor (74%), 10% sebesar 20,5 ekor (82%), yang paling efektif dengan konsentrasi 10% dengan persentase kematian 82%. Pada uji infusa bawang merah (*Allium cepa*) didapatkan hasil rata rata kematian dengan konsentrasi 2,5% sebesar 8 ekor (32%), 5% sebesar 10 ekor (40%), 7,5% sebesar 12,5 ekor (50%), 10% sebesar 15,25 ekor (61%), yang paling efektif dengan konsentrasi 10% dengan persentase kematian 61%. Hasil uji LC50 infusa bawang putih (*Allium sativum*) yaitu 10,618%, sedangkan infusa bawang merah (*Allium cepa*) yaitu 16,077%, maka dapat disimpulkan infusa bawang putih (*Allium sativum*) lebih efektif membunuh larva nyamuk *Aedes aegypti* daripada infusa bawang merah (*Allium cepa*)

**Kata Kunci :** Demam Berdarah Dengue, Bawang Putih, Bawang Merah, Larva *Aedes aegypti*

## ABSTRACT

Dengue Hemorrhagic Fever (DHF) in Indonesia is a medical issue that continues to increase in number of sufferers along with increasing population density. Vector control can be done physically or mechanically, with the use of biotic and chemical agents. Garlic and shallots can be an option as larvicides because they contain flavonoids which act as toxins in the respiration of *Aedes aegypti* mosquito larvae and contain allicin which can inhibit the synthesis of mosquito larvae membranes. This study analyzes the comparison of the effectiveness of garlic (*Allium sativum*) and red onion (*Allium cepa*) infusions against *Aedes aegypti* mosquito larvae carried out by the East Java Provincial Health Service in May 2024. In the garlic (*Allium sativum*) infusion test, average results were obtained. mortality with a concentration of 2.5% was 12 individuals (48%), 5% was 14.25 individuals (57%), 7.5% was 18.5 individuals (74%), 10% was 20.5 individuals (82 %), the most effective with a concentration of 10% with a mortality percentage of 82%. In the red onion (*Allium cepa*) infusion test, the average death results were obtained with a concentration of 2.5% for 8 individuals (32%), 5% for 10 individuals (40%), 7.5% for 12.5 individuals (50%). ), 10% amounted to 15.25 individuals (61%), the most effective with a concentration of 10% with a mortality percentage of 61%. The LC50 test result of garlic infusion (*Allium sativum*) is 10.618%, while red onion (*Allium cepa*) infusion is 16.077%, so it can be stated that garlic infusion (*Allium sativum*) is more effective in killing *Aedes aegypti* mosquito larvae than red onion (*Allium cepa*) infusion.

**Keywords:** Dengue Hemorrhagic Fever, Garlic, Shallots, *Aedes aegypti* Larvae