

ABSTRAK

Penyakit yang disebabkan oleh vektor *Aedes aegypti*, seperti DBD, adalah yang paling umum di seluruh dunia. Berdasarkan data dari WHO, Indonesia mencatat jumlah kasus tertinggi di Asia Tenggara. Untuk mencegah penyebaran virus, larvasida digunakan untuk mengganggu siklus hidup vektor tersebut. Salah satu larvasida alami yang potensial adalah bawang putih tunggal (*Allium sativum L.*), dengan kandungan senyawa aktif seperti *allicin*, *tanin*, *alkaloid*, *saponin*, dan *flavonoid*. Tujuan penelitian untuk menguji seberapa efektif ekstrak bawang putih tunggal dalam membunuh jentik *Aedes aegypti*. Penelitian dilaksanakan di Laboratorium Entomologi Dinas Kesehatan Provinsi Jawa Timur pada April 2024 dan menggunakan desain eksperimental murni. Sebanyak 25 larva *Aedes aegypti* instar III dibagi menjadi 4 kelompok eksperimen dan 2 kelompok kontrol. Setiap kelompok eksperimen diberi ekstrak bawang putih tunggal dengan konsentrasi 0,6%, 0,9%, 1%, dan 1,3%, dan kelompok kontrol positif dengan Abate serta aquades untuk kelompok kontrol negatif. Perlakuan dilakukan selama 24 jam dengan observasi pada interval 2, 4, 6, 12, dan 24 jam. Hasil penelitian didapatkan konsentrasi ekstrak bawang putih tunggal 1,3% paling efektif mencapai tingkat kematian jentik *Aedes aegypti* hingga 95%.

Kata kunci: Jentik *Aedes aegypti*, ekstrak bawang putih tunggal, larvasida

ABSTRACT

Diseases caused by the Aedes aegypti vector, such as dengue fever, are the most common worldwide. Based on data from WHO, Indonesia has the highest number of cases in Southeast Asia. To prevent the spread of the virus, larvicides are used to disrupt the life cycle of the vector. One potential natural larvicide is single garlic (Allium sativum L.), which contains active compounds such as allicin, tannins, alkaloids, saponins, and flavonoids. The purpose of the study was to test how effective single garlic extract is in killing Aedes aegypti larvae. The study was conducted at the Entomology Laboratory of the East Java Provincial Health Office in April 2024 and used a pure experimental design. A total of 25 instar III Aedes aegypti larvae were divided into 4 experimental groups and 2 control groups. Each experimental group was given single garlic extract with concentrations of 0.6%, 0.9%, 1%, and 1.3%, and the positive control group with Abate and distilled water for the negative control group. The treatment was carried out for 24 hours with observations at intervals of 2, 4, 6, 12, and 24 hours. The results of the study showed that a single garlic extract concentration of 1.3% was most effective in achieving a mortality rate of Aedes aegypti larvae of up to 95%.

Keywords: *Aedes aegypti larvae, single garlic extract, larvicide*