ABSTRACT


Keywords: RhizomeAlang-Alang (*Imperata cylindrica*), Maceration, Larvicides, *Aedes aegypti*

Dengue Hemorrhagic Fever (DHF) is one of the communicable diseases that pose a serious threat to public health in the world. *Aedes aegypti* is a disease vector mosquito which belongs to a class of insects. Eradication of *Aedes aegypti* with the termination of life cycle has a lot to do, but until now the main disease vector control Hemorrhagic Fever (DHF) are still concentrated on combating the chemical can cause insect resistance and environmental pollution. Alternative in efforts to eradicate dengue fever can be done with vector control using larvicides vegetable derived from plants, one of which is the rhizome of alang-alang (*Imperata cylindrica*). The purpose of this study is 1.) To determine the effect of several concentrations of rhizome extract (*Imperata cylindrica*) against *Aedes aegypti* mosquito larvae mortality of third instar. 2.) To determine LC50 values rhizome extract alang (*Imperata cylindrica*). 3.) To determine the effect of several concentration extract rhizome of alang-alang (*Imperata cylindrica*) against *Aedes aegypti* mosquito larvae morphological of third instar.

This research was conducted with laboratory RAL. Treatment is given on mosquito larvae extract rhizomeof alang-alang (*Imperata cylindrica*) withconcentration 0%, 0.3%, 0.6%, 1.2%, 2.4%, 4.8% werein3 repition. Those are given to 25 tails third instar larvae test kept in containers that containing 100 ml of water. Observations of larval mortality was observed at 12, 24, 36, 48, 60, and72JSA(Hours After Application). The number of dead larvae were analyzed by ANOVA test of SPSS 16 program. andLC50 were analyzed byprobitprogram. Morphological observation of larvae killed by the extract treatment, using aNIKON microscope magnification SMZ64520x.

The results showed, rhizomeof alang-alang (*Imperata cylindrica*) are most effective in killing the third instar larvae of *Aedes aegypti* it is the extract concentration of 0.3% is the percentage of 72% within 12JSA. LC50 values at 12, 24, 36, 48, 60, and72 JSA respectively 0.08%, 0.07%, 0.173%, 0.175%. As for the60and72do not appear JSA LC value for test larvae were dead100%. The results also showed that the extract of rhizome of alang-alang (*Imperata cylindrica*) effect on morphological damage instar larvae of the mosquito *Aedes aegypti* third instar marked a longer body, brown to black, to effect the structural damage is the tractus digestive occurs in eksosekeleton corrosive.