

ABSTRACT

Farida, Indra. 2013. **Effectivites of Ethanol Extract Rhizome Alang-Alang (*Imperata cylindrica*) as larvicides *Aedes aegypti* L. mosquito Instar III.** Thesis. Department of Biology, Faculty of Science and Technology, State Islamic University (UIN) Maulana Malik Ibrahim Malang. Pomotor (I): Dr. Evika Sandi Savitri, M.P; (II): Umaiyatus Syarifah, M.A

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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 rhizome of alang-alang (*Imperata cylindrica*) with concentration 0%, 0,3%, 0,6%, 1,2%, 2,4%, 4,8% were in 3 repetition. Those are given to 25 tails third instar larvae test kept in containers that containing 100 ml of water. Observation of larval mortality was observed at 12, 24, 36, 48, 60, and 72 JSA (Hours After Application). The number of dead larvae were analyzed by ANOVA test of SPSS 16 program. and LC₅₀ were analyzed by probit program. Morphological observation of larvae killed by the extract treatment, using a NIKON microscope magnification SMZ64520x.

The results showed, rhizome of alang-alang (*Imperata cylindrica*) are most effective in killing the third instar larvae of *Aedes aegypti* is the extract concentration of 0,3% is the percentage of 72% within 12 JSA. LC₅₀ values at 12, 24, 36, 48, 60, and 72 JSA respectively 0,08%, 0,07%, 0,173%, 0,175%. As for the 60 and 72 do not appear JSA LC value for test larvae were dead 100%. 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 exoskeleton corrosive.