

## ABSTRACT

### EFFECTIVENESS OF GARLIC (*Allium sativum* L.) EXTRACT AS THE OVICIDE of *Aedes Aegypti*

By

APGA REPINDO

The World Health Organization (WHO) noted to date approximately 50 million cases of dengue fever are found every year, about 25,000 deaths per year until 2010, mainly in tropical and subtropical regions, including Indonesia. Garlics is known contains *allicin*, *saponin* and *flavonoid* that can inhbite hatchability of *Aedes aegypti*'s eggs. This research objective was to know if garlics extract effective as *Aedes aegypti* ovicide.

This experimental studies which used completely randomized design was performed in November 2013 in Laboratory of Zoology, Department of Biology, Faculty of Mathematics and Natural Sciences, University of Lampung. Concentration of the extract used was 0%, 0.1%, 0.3%, 0.5%, 0.7% and 1% with 4 repetitions for each treatment. Furthermore, was laid 20 eggs in each treatment and repetition, so was gotten the total number of samples of 480 eggs. Then, was observed number of eggs that did not hatch every 6 hours for three days. At the end of the study, hypothesis test of one-way ANOVA resulted p-value <0.001. In the post hoc Bonferroni analysis was known effective concentration than controls (0%) was 1%.

The results showed a decrease in hatchability of eggs of *Aedes aegypti* at concentrations of 0.1%, 0.3%, 0.5%, 0.7% and 1% compared to the negative control. The higher the concentration of the extract on the inhibition of hatching eggs will be higher as well. This indicates that garlic extract effective as the ovicide of *Aedes aegypti*.

**Key words** : *Aedes aegypti*, *Allium sativum* L., ovicide.