

ABSTRACT

THE EFFECTIVENESS OF CLOVE LEAF ETANOL EXTRACTS (*Syzygium aromaticum L*) AS THE OVICIDES of *Aedes aegypti*

by

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Dengue hemorrhagic fever (DHF) is a disease that caused by dengue virus that got into human's body by *Aedes aegypti* mosquito bites. Commonly, people use sintetical insecticide chemist may cause resistention towards the mosquito and ruin the nature one of the alternative that we can use is natural larvacide like clove leaf (*Syzygium aromaticum L*). *Saponin, flavonoid, tanin* and essential oils on clove leaf that are *entomototoxicity* can inhibit eggs hatchability.

The purpose is to determine effectiveness of *clove leaf* extracts as the ovicides of *Aedes aegypti*. Design research is experimental with completely randomized design that used 6 treatment groups, 0% (negative control), 0,1%, 0,3%, 0,5%, 0,7% and 1% with 25 eggs in each group and 4 time repetitions. Then, the number of eggs that did not hatch every 24 hours for three days was observed, and on the 3rd day would be performed test analysis to gain the cumulative data.

Kruskal wallis hypothesis test produced *p-value*<0,001. The result of *post-hoc* analysis, it was noted that all effective concentrations compared with controls (0%) with optimal dose 0,3% and the dose which had the highest inhibition was 1% with ED₈₀. The results showed that *Clove leaf* extracts can be used as the ovicides of *Aedes aegypti*.

Keywords: *Aedes aegypti, Clove leaf, Ovicides.*