ABSTRACT

THE EFFECTIVENESS TEST OF CLOVE LEAVE EXTRACTS (*Syzygium aromaticum*) AS MATERIAL OF ELEKTRIK LIQUID VAPORIZER AGAINST *Aedes aegypti*

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*Aedes aegypti* is dengue fever vector which still be a public health problem in Indonesia. Chemical insecticides are the most commonly used as insecticide to control and eradicate *Ae. aegypti*. However, the long use of chemical insecticides can caused resistance for these vectors. The leaves of clove (*Syzygium aromaticum* L) known contains flavonoids and saponins that have potentially as insecticides. This research objective was to know the effectiveness of clove leaves extract as insecticide for *Ae. aegypti*, to know *Lethal Concentration* value (LC$_{50}$ and LC$_{90}$) and *Lethal Time* value (LT$_{50}$ and LT$_{90}$). The experiment us a randomized block design with five levels of concentration, 10% ; 20% ; 30 % ; 40 % ; and 50% of the clove leaf extract, and with two control, negative control containing aquades, and positif control containing *tranflutrin* 12,38g/l, with four times repetition at each concentration and control. Observation was done at 5, 10, 20, 40, 60, 120, 240, 480, and 1440 minutes after application. ANOVA Test and BNT Test resulted the most effective concentration than negatif controls and equel with positive control was 50%. Probit analysis result showed that LC$_{50}$ value was 43,709% and LC$_{90}$ value was 49,069%. LT$_{50}$ value and LT$_{90}$ in this research are 1220,152 minutes and 1126,488 minutes. The results of this research showed that clove leaves extract is potential as inseccides for *Ae. aegypti* and the most effective extract was 50%.

Keywords: Mosquito *Aedes aegypti*, Clove leaf extract, *Lethal Concentration*, *Lethal Time*