

ABSTRACT

POTENTION TEST OF PAPAYA (*Carica papaya L.*) LEAVES EXTRACT AS LARVACIDE FOR *Aedes aegypti* MOSQUITO LARVAE INSTARS III

By

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Aedes aegypti is dengue fever vector mosquito which still be a public health problem in Indonesia. Chemical insecticides are the most commonly used as larvacide to control and eradicate *Aedes aegypti*. However, the long use of chemical larvicides can caused resistance for these vectors. Dangers of using chemical larvicides can be minimized by using natural larvicides, one of the plants is leaves of papaya plant (*Carica papaya L.*) which is known contains flavonoids and saponins that have potentially as larvicides. This research objective was to know about potention of papaya leaves extract as larvacide for *Aedes aegypti*, also to know about *Lethal Concentration* value (LC₅₀ and LC₉₀) and *Lethal Time* value (LT₅₀ and LT₉₀). The experiment research using a completely randomized design was conducted with five levels of concentration of the extract , which is 0.2 % ; 0.4 % ; 0.6 % ; 0.8 % ; and 1 % with 4 times repetition at each concentration. Then, was observed number of larvae that die every 5 , 10 , 20 , 40 , 60 , 120 , 240 , 480 , 1440 , 2880, and 4320 minutes . Hypothesis test of one-way ANOVA resulted p value (sig) = 0.002 because of p<0.05 accordingly larvicides potention in each concentration are different. In the post hoc Tukey analysis was known effective concentration than controls (0%) was 1%. Probit analysis result showed that LC₅₀ value was 1,0% in 1440 minutes ; 0,8% in 2880 and 4320 minutes, as well as LT₅₀ value obtained was 2278.73 minutes at a concentration of 1.0 % . While the LC₉₀ and LT₉₀ values in this study was not obtained . The results showed that papaya leaves extract is potential as larvicides for *Aedes aegypti* mosquito.

Key word : Papaya leaves (*Carica papaya L.*), larvacide, *Aedes aegypti* larvae