

ABSTRACT

THE INFLUENCE OF FRUIT EXTRACTS *Phaleria macrocarpa* against *Aedes aegypti* LARVAE DEVELOPMENT of INSTAR III

By

ANITYO NUGROHO

Dengue Hemorrhagic Fever (DBD) is caused by dengue. The *Phaleria macrocarpa* have active compounds such as saponins, flavonoids and atsiri that can inhibit the development of *Aedes aegypti* larvae into adult form. This research in order to know the influence of fruit extracts *Phaleria macrocarpa* against the development of larvae of *Aedes aegypti* instar III.

Experimental research methods complete random design standard World Health Organization Pesticides Evaluation Scheme (WHOPES, 2005). Research samples of larvae of *Aedes aegypti* instar III are divided in 1 negative control group and 5 treatment group, concentrations of 0.025%, 0.050%, 0.075%, 0.100% and 0.125%. Each group contains 25 larvae, done four times repetition.. Data obtained test tested one way anova and probit.

One way anova test shows that there is a difference between groups ($p < 0,001$; $\alpha = 0,05$). The percentage of the number of larvae that do not develop into the adult stage at various concentrations were assessed as IE% (Adult Emergence Inhibition). Probit analysis was used to determine the IE50 and IE90. Barriers to the development of the larval instar III *Aedes aegypti* to adult stage of 50% and 90% (IE50 and IE90) obtained at concentrations of 0.030% and 0,126%. The results showed that *phaleria macrocarpa* extracts have an impact on the development of the larvae of *Aedes aegypti*.

Key words: *Aedes aegypti*, fruit extracts *Phaleria macrocarpa*, insect growth regulator