

ABSTRACT

THE PROTECTION OF PANDANUS LEAF (*Pandanus amaryllifolius*)' ETHANOL EXTRACTS AS THE REPELLENT TO *Aedes aegypti*

By

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Dengue Haemorrhage Fever (DHF) is the disease caused by the *Aedes aegypti* mosquito bite with infected dengue virus. Incidence rate of DHF has rising annually so that the vector control becomes important. Vector control such as repellent is needed to prevent DHF, but chemical repellent has been reported for its corrosive effect. Active compounds of Pandanus leaf (*Pandanus amaryllifolius*) have been reported on repellent action. The study aimed at observing the effect of Pandanus leaf extracts as the repellent to *Aedes aegypti*. The study was an experimental design and followed procedures that recommended by the World Health Organization Pesticides Evaluation Scheme (WHOPES). The research has been conducted in Organic Chemistry Laboratory and Zoology Laboratory, University of Lampung, from October to December 2014. Alcohol 70% served as a negative control and *Pandanus amaryllifolius* leaf extracts has concentration 10, 20, 30 and 40% applied by volunteer's forearm. Protection from mosquito bites analyzed by One-way Anova test. Effective doses 50% and 99% (ED₅₀ and ED₉₉) value were calculated by Probit test. *Pandanus amaryllifolius* leaf extracts showed repellent effect to *Aedes aegypti*. The result showed ED₅₀ values were 11,068% and ED₉₉ values were 73,247% for *Aedes aegypti*.

Keywords: *Aedes aegypti*, pandanus leaf (*Pandanus amaryllifolius*), Dengue Haemorrhage Fever (DHF), repellent