

ABSTRACT

EFFECTIVENESS OF GUAVA LEAF EXTRACT (*Psidium guajava* Linn) AS *Aedes aegypti* INSECTICIDE IN MOSQUITO ELECTRIC

By

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Aedes aegypti is a mosquito that played as a vector of dengue fever. One of the method to prevent the spread of dengue fever is by using bioinsecticide as vector control. Guava (*Psidium guajava* Linn) is one of the Myrtaceae species with bioinsecticide potential that have chemical tanin, polifenolat, flavanoid, menoterpenoid, siskulterpen, alkaloid, kuinon dan saponin, minyak atsiri compounds with toxic effect against mosquitoes. This study aims to determine the effectiveness of guava leaf extract as mosquito electric against *Aedes aegypti*.

This research was conducted at the Laboratory of Zoology, Faculty of Mathematics and Natural Sciences on November 2014 with a completely randomized design method according to the standard World Health Organization Guidelines For Testing Efficacy Of Household Insecticide Products (WHOPES, 2009). The study sample was 450 adult *Aedes aegypti* of 2-5 days old were divided into six treatment groups were negative control, 6,25%, 12,5%, 25%,50% and positive control. Each group contained 25 mosquitoes with three replication. The data obtained from the study were tested statistically by One way anova test and probit.

One way anova test showed a difference between groups. Probit analysis is used to determine the LD_{50} and LD_{95} with KT_{50} and KT_{95} . Value of LD_{50} is 1,441% and LD_{95} is 7,036%. While KT_{50} is 0,98 minutes and KT_{95} is 14,1 minutes. These results indicate that guava leaf extract effective as *Aedes aegypti* insecticide in mosquito electric.

Keywords : *Aedes aegypti*, insecticide, mosquito electric, *Psidium guajava*.