ABSTRACT

EFFECTIVITY TEST OF KECOMBRANG (*Elingera elatior*) STEM *n-hexane* FRACTION AS LARVACIDE AGAINTS THE THIRD INSTAR *Aedes Aegypti* LARVAE

By

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Dengue hemorrhagic fever is an acute disease caused by dengue virus transmitted by *Aedes aegypti*. The chemicals used for eliminating DHF vector have some long term adverse effect such as neural system damage, lung and skin cancer. Therefore, a natural insecticide can be used against vector of DHF, and one of them is Kecombrang plants (*Etlingera elatior*) which containing saponin and flavonoids compound which could kill mosquito larvae.

This research was aimed to determine effect, LC_{50} and LT_{50} of kecombrang stem n-hexane fraction as larvacide againts *Aedes aegypti* larvae. This research used experimental design with randomized control trial, There were 6 consentrations of kecombrang stem n-hexane fraction which consisted of negative group control (0%); consentration of 0,25%, 0,5%, 0,75%, 1% and positive group control (Abate 1%) with 4 times repetition. Each group contained 20 larvas. The result

was analyzed using *one-way anova* ($p<0,05$), *Post-hoc Bonferroni* ($p<0,05$), and probit test to calculate LC_{50} and LT_{50}

The result showed the average number of dead larvae was 25% on 0,25% concentration; 33,75% on 0,5% consentration; 45% on 0,75% consentration and 90% on 1% consentration. The LC_{50} was 1,013% in the 10^{th} minute; 1,002% in the 20^{th} minute; 0,903% in the 40^{th} minute; 0,810% in the 120^{th} minute; 0,686% in the 24^{th} hour; 0,643% in the 48^{th} hour and 0,579% in the 72^{th} hour. The LT_{50} was 10,73 minutes on 1% consentration.

Keywords: *Aedes aegypti*, Dengue hemorrhagic fever, Kecombrang (*Etlingera elatior*), Larvacide