

## ABSTRACT

### THE EFFECTIVITY OF KRISAN FLOWER (*Chrysanthemum morifolium*) ETHANOL EXTRACT AS LARVICIDE TOWARDS *Aedes aegypti* INSTAR III LARVAE

By

DEVI PUTRI AMALIA SURYANI

Dengue hemorrhagic fever is one of healthy problem in Indonesia. Larvacide is vector control. Utilization of herbal extract have been developed as larvacides that environmental friendly. This study aim to determine the effectiveness, LC<sub>50</sub> and LT<sub>50</sub> from krisan flower (*Chrysanthemum morifolium*) ethanol extract.

Design of this study is randomized control trial with post test only control group design, divide into 6 concentration consists of negative control (0%), 0.25%, 0.5%, 0.75%, 1% and positive control (Abate 1%), and observed at 5 to 4320 minutes. Used sample of 600 larvaes, divided into 25 larvaes each group in 200 ml solution with various concentrations and four with repetitions. This checking is used by *Kruskal-Wallis* method ( $p < 0.05$ ), *Post Hoc Mann Whitney* ( $p < 0.05$ ) and Probit test.

The average number result of death larvaes is 92,4%. LC<sub>50</sub> value was 13,329% at 20 minutes; 10.973% at 40 minutes; 5.319% at 60 minutes; 2.984% at 120 minutes; 1.605% at 240 minutes; 0.565% at 480 minutes. LT<sub>50</sub> value was 249.972 minutes at 0.25% concentration; 269.100 minutes at 0.5% concentration; 102.775 minutes at 0.75% concentration; 88.985 minutes at 1% concentration.

Krisan flower (*Chrysanthemum morifolium*) is effective as natural larvacide with LC<sub>50</sub> 0.565% and LT<sub>50</sub> <4320 minutes.

Keywords : *Aedes aegypti*, dengue hemorrhagic fever, krisan flower (*Chrysanthemum morifolium*), larvacide