

The Effect of Ethanol Extract from Turmeric (*Curcuma domestica Val.*) on the Mortality of *Aedes aegypti* Larvae

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The overall incidence of Dengue fever cases is still relatively high in Indonesia. For that reason, accurate preventive measures are required. The currently applied preventive measures include the use of chemical larvicide (*temefos*). Some reports indicate that several regions in Indonesia have become resistance to temephos so that it is necessary to control the vector by using natural larvicide. Turmeric (*Curcuma domestica Val.*) has compound content which has the characteristics as larvicide. **OBJECTIVE:** This research is aimed to examining the toxic effect of ethanol extract from turmeric (*Curcuma domestica Val.*) on *Aedes aegypti* larvae. **METHOD:** True experimental research by applying *post-test only with control design*. This research uses 25 third instar larvae of *Aedes aegypti* meeting the inclusion criteria as samples. Those samples are divided into 7 groups, 1 positive control group, 1 negative control group and 5 treatment groups with variations of extract concentration of 0.0005%; 0.001%; 0.002%; 0.005%; dan 0,05%. The assessment is conducted by observing the activities of the larvae 24 hours after the treatment. Each group will be subjected to repeat tests with 4 replications. The results of the research will be analyzed by using and probit analysis. **RESULTS:** Results of this study showed that the percentage of larval mortality at concentrations of 0.0005%; 0.001%; 0.002%; 0.005%; and 0.05% respectively were 10%; 20%; 20%; 55%; and 100%. LC50 and LC90 values of 0.005% and 0.013%.**CONCLUSION:** Turmeric (*Curcuma domestica Val.*) ethanol extract has a larvicidal effect on *Aedes aegypti* larvae.

Biography

My name is Ghufrani Sofiana Rismawanti, my nickname is Ghufrani. Im a student half 7 of the faculty of medicine of Indonesian Islamic University. I was born in Indonesia (Yogyakarta), 31st of December in 1996. I was the third child of 3rd sisters, children of dr. Muhammad Faris disease specialist and dr. Purwanti Nurlela Specialist Clinical Pathology. I just managed to finish my research on how to kill the vectors of dengue fever. Basic material I use is *Curcuma domestica Val* easily found in Indonesia. This study is the first that I completed. *Alhamdulillah*, the result of my research in accordance with the theory.

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