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The Larvisidal Activity Of Datura Metel (L.) Against Larvae Of Aedes Aegypti Mosquito
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# ABSTRACT

Dengue is a mosquito-borne infection that in recent decades has become a major international public health concern. Dengue viruses are transmitted to humans through the bites of infective female *Ae. aegypti* mosquitoes. At present, the only method of controlling or preventing dengue virus transmission is to combat the vector mosquitoes, such as using larvasides to cut the cycle of the mosquito. *D. metel* is one of the potential plants that may be used as larvicidal agent, in which it is known to contain some metabolites such as scopolamine, hyosciamine, atropine, etc responsible for the toxic effect the plant gives.

The aim of the study is to prove whether the ethanol extract of *D. metel*(L.) leaves can be used as larvicidal agent against the larvae of *Ae. aegypti* mosquito, and to measure the effective dose of the extract represented with $LC_x$ (Lethal Concentration x) of the extract.

The research is an experimental study with posttest only design. Test is divided into preliminary study to set a range of concentrations which are able to kill 10-90% of larvae and final test with 3 replications. Ten larvae is put into each glasses containing extracts at concentrations ranging from 1,000-10,000 ppm. After 24 hour exposure, mortality is counted and the data is analyzed using probit analysis.

The result shows that the $LC_{50}$ of the extract is 13,218.5 ppm, while the $LC_{90}$ is 49,062.84 ppm after 24 hour exposure

The ethanol extract of *D. metel* (L.) is not effective to be used as larvicidal agent against *Ae. aegypti* larvae, and the higher the doses given, the higher the mortality will be.