

EFFECTIVENESS OF THE COMBINATION OF BREADFRUIT (*Artocarpus altilis L.*) and BINAHONG (*Anredera cordifolia*) AS ANTI-MOSQUITO MATERIAL AGAINST THE DEATH OF *Aedes aegypti* MOSQUITO

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ABSTRACT

Dengue fever is caused by the bite of the *Aedes aegypti* mosquito which carries the dengue virus. This disease is characterized by the appearance of symptoms of fever 2-7 days accompanied by a decrease in platelets (*thrombocytopenia*), red spots on the skin. One of the efforts made to suppress the spread of DHF is vector control using insecticides. The use of plant-based insecticides is considered safer for humans and the environment, because it is easily biodegradable so it does not pollute the environment. The purpose of this study was to determine the mortality percentage of *Aedes aegypti* mosquitoes using various combinations of formulations of breadfruit (*Artocarpus altilis L.*) and binahong (*Anredera cordifolia*) as vegetable insecticides using the electric *mat* method.

This type of research is a quasi-experiment with *Post Test Only With Control Group Design*. The population used was adult *Aedes aegypti* mosquitoes, totaling 480 mosquitoes. Analysis using a table containing data on mosquito mortality with 6 repetitions. Statistical analysis using the *Shapiro Wilk* test showed that there was a difference in the effect of using a combination *mat* of breadfruit (*Artocarpus altilis L.*) and binahong (*Anredera cordifolia*) on the mortality of *Aedes aegypti* mosquitoes.

The results of this study indicate that the *mat* tested in gram units with various formulations of breadfruit (*Artocarpus altilis L.*), binahong (*Anredera cordifolia*) and starch, namely 7:1:2, 3:1:6, and 5:1:4 stated able to kill *Aedes aegypti* and *mat* mosquitoes with the highest formulation combination of 7:1:2 (7 grams of breadfruit flowers:1 gram binahong:2 grams of starch), effective in killing *Aedes aegypti* mosquitoes with a mortality percentage of 87.5%.

The conclusion of this study is that the use of an anti-mosquito *mat* combination of breadfruit (*Artocarpus altilis L.*) and binahong (*Anredera cordifolia*) can cause the death of *Aedes aegypti* mosquitoes. The suggestion put forward is that people are expected to use this combination *mat* as an alternative insecticide.

Keywords: *Artocarpus altilis L.*, *Anredera cordifolia*, *Aedes aegypti*.