

Larvicidal activity of *Syzygium polyanthum* W. leaf extract against *Aedes aegypti* L larvae

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ABSTRACT

Introduction: *Aedes aegypti* is one of mosquito species, especially *Aedes* genus which can cause dengue fever to humans. This species acts as dengue virus vector through the bite of mosquitoes which enters the human bloodstream. Salam leaf extract is well known for its various functions, one of them is to fight against *Aedes aegypti* L. larvae.

Purpose: This research aims to know the larvicidal activity of *Syzygium polyanthum* W. leaf extract against *Aedes aegypti* L larvae.

Materials and methods: This study is an experimental research with *Posttest Only Control Group Design* method using ANOVA test. The samples were *Aedes aegypti* L. larvae instar III and *Syzygium polyanthum* W. extract. Maceration method was used in the extraction process. The

dosages of the extract tested were 0% (control), 0.25%, 0.5%, 0.75%, and 1%.

Results: The results showed there were no larval mortality in 0% concentration (control). The percentage of larval mortality was on the average of 18.68% in 0.25%, 32% in 0.5%, 54.68% in 0.75%, 78% in 1% concentration. The *Analysis of Variance* obtained from F count = 1414.86 which was bigger than F table = 2.75, so H_0 was rejected. The analysis of *Reed and Muench* obtained was $LC_{50} = 6576.68$ ppm or around 0.66 %.

Conclusion: Based on that result, it can be concluded that the extract of salam leaf is potential as a larvacide on *Aedes aegypti* L. larvae.

Key words: Salam leaf extract (*Syzygium polyanthum* W.), larvacide, *Aedes aegypti* L.
