

ABSTRACT

Background:

Dengue is the most common mosquito-borne viral disease. The main vector for Dengue virus is the *Aedes aegypti* mosquito. Due to no vaccine for dengue till now, vector control is the main prevention for the spread of Dengue. Some parts of *Annona muricata*, a plant from the *Annonaceae* plant family have been reported to possess larvicidal activity against variety of larva. This research is specifically to find the larvicidal activity of the chloroform extract from *Annona muricata* flowers against *Aedes aegypti* larva.

Aims of study:

The aims of the research is to develop larvacide against *Aedes aegypti* from *Annona muricata* flowers, to find the LC_{50} for the chloroform extract and to test whether increasing the dosage concentration will increase the larvae mortality.

Methods:

Third and fourth instar larvae of *Ae. aegypti* were introduced to varying concentration of chloroform extract from Sirsak (*A. muricata*) flowers for 24 hours under standardized condition.

Results:

The LC_{50} and LC_{90} value for the chloroform extract of *A. muricata* flowers after 24 hours of exposure are 1244,04 ppm and 3388,44 ppm respectively.

Conclusion:

Chloroform extract of *A. muricata* flowers have larvicidal activity against *Ae. aegypti* larvae but it is not effective. Mortality of the larvae increase with the increase in the chloroform extracts concentration.

Keywords:

Dengue - *Aedes aegypti* - larvacide - chloroform - *Annona muricata* (flowers)