

ABSTRACT

Natural insecticides have been a substitute for commercial insecticides because it gives the same effect. A crude leaf extract of *Gliricidia sepium* (Kakawate) was used to exterminate *Drosophila melanogaster* (Fruit flies).

Gliricidia sepium, locally called as Kakawate is a multi-purpose leguminous tree that belongs to the family Fabaceae. It is used in many tropical and sub-tropical countries as live fencing, insecticide and repellent. *Gliricidia* trees are a medium size with composite leaves, reddish flowers and leafless branches. Typically, it can be found growing in acid soils with low to medium fertility.

Despite being widely grown throughout the tropics, *G. sepium* has remained relatively free of serious diseases. The lack of diseases is thought to be due to the tendency of the species to be leafless for periods of the year, thus reducing the likelihood of epidemics. Several incidences of insect problems, for example, aphids, mealy bugs and scale insects attack the trees and it was determined that the insecticidal effect of *G. sepium* was proven to be an effective natural insecticide.

For the experiment, three different concentrations were applied to examine the effectiveness by quantifying the mortality rate of the test organism (Fruit flies). One-way Analysis of Variance (ANOVA) was also used to illustrate the significant differences of each given concentration. It was found that the value of $F_{ratio} = 51.19$ greater than the $F_{critical}$ with a value of 4.066181 indicating significant difference. To determine the significant difference for each group, Tukey method was used. Result showed that the value of mean differences of each group compared was greater than critical range and all are significant.