

POTENTIAL INFUSION OF JAVA GINSENG LEAF (*Talinum paniculatum* (Jacq.) Gaertn) AS A BIOINSECTICIDE AGAINST *Aedes aegypti* MOSQUITO DEATH WITH VAPORIZER METHOD

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ABSTRACT

DHF is still the main health problem in Indonesia. The *Aedes aegypti* mosquito is the main vector for the spread of DHF. The continuous use of synthetic insecticides can cause mosquitoes to become resistant. Javanese ginseng leaves (*Talinum paniculatum* (Jacq.) Gaertn) contain active ingredients such as flavonoids, saponins, tannins, and alkaloids that can be used as bioinsecticides. This study aimed to analyze the potential of javanese ginseng leaf infusion as a bioinsecticide against the death of the *Aedes aegypti* mosquito using the vaporizer method.

This type of research was pure experiment with a post test only control group design. The object of this study was 600 *Aedes aegypti* mosquitoes exposed to Javanese ginseng leaf infusion for 20 minutes and then observed the number of mosquito deaths 24 hours after exposure. The concentration variations used 5%, 10%, 15%, and control with 6 replications. Data analysis used *One Way Anova*, *Independent Sample T-Test*, and Probit test.

The results showed a concentration of 15% had the highest average number of mosquito deaths with a percentage of 60%. The temperature and humidity of the test room were in the optimum range of 28.7°C and 71.5%. The results of the One Way Anova test showed that there were differences in the number of deaths of *Aedes aegypti* mosquitoes in variations in the concentration of Javanese ginseng leaf infusion. The results of the Independent Sample T-Test showed that there was a potential difference between the control and treatment groups. The results of probit analysis showed that the LC₅₀ value of Javanese ginseng leaf infusion was 12.015%.

The conclusion of this research was the Javanese ginseng leaf infusion has the potential as a bioinsecticide against the death of the *Aedes aegypti* mosquito by the vaporizer method. Further researchers are recommended to increase the concentration so that it is more effective to killing the *Aedes aegypti* mosquito.

Keywords : Infusion, *Talinum paniculatum* (Jacq) Gaertn, Bioinsecticide, *Aedes aegypti*, Vaporizer.