

Application of Various Interval of Encapsulated Guava Leaves Extract, Unencapsulated Guava Leaves Extract and Unencapsulated Horticultural Mineral Oil on *Diaphorina citri* Feeding and Oviposition Behavior

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ABSTRACT

Control *Diaphorina citri* vector of CVPD disease can be achieved using repellent compounds. This study aims to determine the application interval and compounds that effectively suppress the feeding and oviposition behavior of *Diaphorina citri*. The treatments in this research are guava leaves extract, encapsulated guava leaves extract, and Horticultural Mineral Oil were applied every 5, 10, and 15 days for 1 month. Observations were made using the non-choice test method to assess feeding and egg-laying behavior, as well as a choice test to determine the orientation of *Diaphorina citri* towards odor source. The study used a completely randomized design (CRD), and the data were analyzed using multivariate analysis and a $\alpha:5\%$ DMRT test. Non-choice test method, the application interval of once every 10 days was effective in suppressing the feeding activity of *Diaphorina citri*. The egg and nymph development parameters in the 1% EDJB treatment every 10 days showed the lowest number of eggs. The observation parameters of the insect behavioral choice test method showed that insects preferred leaves treated with the control (distilled water spray) compared to the 1% EDJB treatment every 10 days. Observations of the effects on plant growth showed a positive effect of 1% guava leaf extract on shoot length, number of leaves, and leaf length compared to the control, which showed a decrease at the end of the observation. These results indicate that encapsulated guava leaf extract can retain volatile compounds that repel *Diaphorina citri* insects during feeding and egg-laying activities.

Keyword: Citrus vein phloem degeneration, Nymph, Psyllids, Repellent compounds, Y-tube olfactometer, Growth effect.