

**REPELLENT ACTIVITIES OF ENCAPSULATED AND NON
ENCAPSULATED GUAVA LEAVES EXTRACT AGAINST *Diaphorina
citri* ON CVPD INFECTED CITRUS PLANTS**

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ABSTRACT

Citrus Vein Phloem Degeneration (CVPD) is considered to be the most important disease of citrus crops, causing reduced productivity, quality and even death of citrus plants. The disease is caused by *Liberibacter asiaticus* and can be transmitted through the carrier insect (vector) *Diaphorina citri*. This study aimed to determine the formulation and concentration of guava leaves extract that had the highest repellency effect against *Diaphorina citri* during host-finding behavior for feeding on CVPD-infected citrus plants. The research method used a completely randomized design (CRD) with formulations of encapsulated guava leaves extract, non-encapsulated guava leaves extract, and a control. The concentrations of encapsulated and non-encapsulated guava leaves extract in this study were 0.5%, 1%, and 1.5%. The 1% encapsulated guava leaves extract (E 1%) had the highest repellent ability by showing the lowest repellency index compared to other treatments, with a value of 0.70 after 12 hours in the non-choice test. The choice test showed that the E 1% treatment had a lower average number of *D. citri* compared to the NE 1.5% treatment, with only 3 individuals observed after 12 hours of observation.

Keywords: Citrus, CVPD, *Diaphorina citri*, guava leaves extract, encapsulation.