

# **ROLE OF HORTICULTURAL MINERAL OIL (HMO) AND KAOLIN ON *Diaphorina citri* FEEDING AND OVIPOSITION BEHAVIOR**

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## **ABSTRACT**

Citrus stands as Indonesia's third most consumed fruits, holding significant importance in the realm of fruit commodities. Production of citrus is fluctuated over the past decade due to Citrus Vein Phloem Degeneration (CVPD). Infections induced by *Liberibacter asiaticus* through contaminated seeds or by its insect vector *Diaphorina citri*. The objective of this research is to determine the role of combination between HMO and kaolin on feeding and oviposition behavior of *D. citri* and the optimal concentration for the repellent effect. This study applied a completely randomized design (CRD) using a combination of Horticultural Mineral Oil (HMO) at concentrations of 0.5%, 1%, and 2%, and kaolin at concentrations of 1%, 1.5%, and 2%. The concentration mixture of HMO 2% and kaolin 1.5% exhibited a repellency index of 0.27 after 12 hours in a non-choice test, with effective persistence observed on the first day post-application and positive effects on plant growth compared to untreated plants. The choice test showed that HMO 0.5% combined with kaolin 1.5% resulted in the lowest average number of *D. citri* eggs, nymphs, and adults, suggesting its effectiveness in deterring oviposition.

**Keywords:** Citrus, CVPD, *Diaphorina citri*, HMO, kaolin, feeding, oviposition.