

## **PATHOGENICITY TEST OF ENTOMOPATHOGENIC FUNGI**

### ***Lecanicillium lecanii* ON CITRUS PSYLLID (*Diaphorina citri*)**

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#### **ABSTRACT**

Citrus (*Citrus sp.*) is one of the leading horticultural commodities with high economic value in Indonesia. The quantity and quality of citrus commodity yields decreased caused by Citrus Vein Phloem Degeneration (CVPD). It is a destructive citrus disease caused by *Candidatus Liberibacter asiaticus* that can transmit by vector *Diaphorina citri*. This study was aimed to examine effectiveness of various density of *Lecanicillium lecanii* on mortality *D. citri*. The research was conducted in plant protection laboratory and experimental garden, Faculty of Agriculture, UPN "Veteran" Yogyakarta from March 2023 up to November 2023. The research arranged in Completely Randomized Design (CRD) with 1 factor. The treatments are : aquadest,  $1 \times 10^6$ ,  $1 \times 10^7$ ,  $1 \times 10^8$  and  $1 \times 10^9$  conidia/mL with four repetitions. Treatment was carried out by spraying the suspension onto *D. citri* nymph and imago until first drop. The results of the observations analyzed using Analysis of Variance (ANOVA). If the results show a significant difference, then Duncan Multiple Range Test (DMRT) was carried out with an error level of 5%. Entomopathogenic fungi *L. lecanii* was effective in infecting *D. citri* nymph and imago. Concentration of *L. lecanii* that are effective causing 95% of mortality in nymph are  $2,3 \times 10^{10}$  conidia/mL. Concentration of *L. lecanii* that are effective causing 95% of mortality in imago are  $6,3 \times 10^{10}$  conidia/mL.

Keywords: *Diaphorina citri*, *Lecanicillium lecanii*, pathogenicity, mortality