Dinamika Populasi Diaphorina citri Kuwayama (Homoptera: Psyllidae) dan Deteksi CVPD dengan Teknik PCR

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Abstract

The research was conducted in the field of Taro village (600 m above the sea) Gianyar regency and Katung village (1200 m above the sea) Bangli regency and at the Laboratory of Biotechnology Faculty of Agricultural Udayana University in April to October 2009. The purpose of the research were to investigate population dynamic of Diaphorina citri Kuwayama and other insects that were associated with citrus cv. siam; and molecular detection of CVPD patogen in its vector, other phytophagous insects on citrus cv.siam and kemuning [Murraya paniculata (L.) Jack.] The result of this study showed that in six month period there was one peak of D. citri population which was associated with the flushing period of citrus at Taro as well Katung villages. The peak of D. citri population of Taro village was higher than that of Katung village. Two species of parasitoids and four spesies of predators were found in the field and may contribute in the suppression of D. citri population. The parasitoids identified were Tamarixia radiata Wat. and Diaphorencyrtus alligharensi Shaffe, whereas the predators were Curinus coeruleus Mulsant, Phiddipus sp., Menochilus sexmaculatus Fabricius and Oxyopes javanus Thorell. T. radiata has been proven to be an effective nymph parasitoid that could suppress the population development of D. citri in citrus orchads. The research revealed that kemuning could serve as a source of infection because it is also a host of CVPD disease as well as of D. citri. Toxoptera citricidus Kirkaldy and Maleuterpes dentipes Hell. were not proven to contain CVPD disease.

KEY WORDS: Population dynamic, Diaphorina citri, CVPD, PCR.

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