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#### **Title**

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# Dispersal Behavior of *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae) Under Laboratory Conditions

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Asian citrus psyllid (ACP), *Diaphorina citri* Kuwayama, is the vector of huanglongbing (HLB), the most devastating disease of citrus worldwide. Knowledge of ACP dispersal behavior in locating host plants may contribute to our understanding of the spread of HLB within and between citrus trees. We conducted research in laboratory to evaluate ACP host plant finding behavior. In a free-choice situation, ACP adults initially settled at equal rates among seedlings of *Rhododendron simsii* (non host plant for ACP), *Murraya panciculata* and "Lugan" *Citrus reticulata*. However, at 18 and 42 h after ACP were released, the mean number of adults per plant on *R. simsii* was significantly lower than on *C. reticulata* and *M. paniculata*, respectively. Numbers of adults on *C. reticulata* and *M. paniculata* remained statistically equivalenty until 90 h after releases. Within a plant, the ratio of ACP adults on new flush shoots did not significantly increased in comparison to other parts of the tree during 1-4 d after the psyllids were released. Even on 7<sup>th</sup> day after ACP release, about 30 % adults were observed on plant locations other than flushing shoots. The results indicated that ACP adults differentiated between host and non-host plants faster than they differentiated between different parts of a host plant.

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