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Presentation Type: Poster presentation

Project Title: Asian Citrus Psyllid Rearing: Comparison of monoculture and mixed culture mass rearing and the effect on ACP nymph densities

Synopsis: Mass rearing of ACP was conducted on two colonies of plants, a monoculture including only curry leaf plants and a mixed colony of one citrus plant in combination with curry leaf plants, in order to find which colony would rear the most ACP.

Abstract: Huanglongbing or citrus greening disease (Candidatus Liberibacter asiaticus) is vectored by the Asian citrus psyllid (Diaphorina citri Kuwayama). Currently, the most effective biological control agent for ACP is the parasitic wasp Tamarixia radiata. Feeding and egg-laying habits of ACP were studied by manipulating the plants they fed and laid eggs upon, Citrus volkameriana and Murraya koenigii or curry leaf. This research was conducted in order to better understand how to create the optimum environment which would lead to the greatest numbers of ACP nymphs as a steady food supply for the mass rearing of T. radiata. ACP adults were released into cages with only curry plants, where they were allowed to feed and mate. Some were then transferred to cages with nine curry, while others to cages with eight curry and a single citrus plant. Data collected showed that ACP adult females laid more eggs when introduced to a mix of citrus and curry leaf plants. Furthermore, the numbers of nymphs on the monoculture of curry leaf were not as dense in comparison to the cages with curry and citrus combined.