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Effects of citrus flush quality and psyllid population density on use of vibrational communication signals for *Diaphorina citri* management

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Diaphorina citri is an important pest of citrus because it vectors the devastating citrus greening bacterial disease. It is known that males locate potential mates on tree branches by use of vibrational communication. Research on this behavior may help combat the citrus greening epidemic that has affected Florida and other regions, such as through trapping and the inhibition of psyllid mating. However, because this is a new area of study, many questions remain about the application of such technology in field environments. Potentially, vibrational communication behavior could be affected significantly by the quality of flush and/or by the density of *D. citri* on individual trees, both of which would affect the psyllid movement patterns that the vibrational communication attempts to pre-empt. Experiments were conducted to monitor calling and aggregation of *D. citri* males and females at different densities on feather flush and older flush of small citrus trees. Results of the study and implications for pest management are discussed.

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