4.13 Detection of *Candidatus Liberibacter asiaticus* (Las) on Yellow Sticky Traps by Real-Time PCR

**Irey, M.S.**¹, Gadea, P.¹, Hall, D.G.²

¹U.S. Sugar Corporation, Clewiston, FL, USA  
²USDA-ARS, U.S. Horticultural Research Laboratory, Fort Pierce, FL, USA

In many areas of the world, surveys to detect the presence of citrus huanglongbing (HLB) prior to the discovery of symptomatic plants are carried out by the monitoring of *Diaphorina citri* (ACP) on yellow sticky traps followed by testing of the psyllids for HLB-associated bacteria (Las) by real-time PCR (qPCR). In most areas where psyllids are monitored on yellow sticky traps, the traps are left in the field for 1-2 weeks after which time the cards are brought to the laboratory for visual evaluation for the presence of ACP, and then, if present, the psyllids are removed from the cards or the cards are sent to a diagnostic laboratory for subsequent testing. The process from beginning to end may take up to a month, depending on the work-flow for the group conducting the surveys. Since the testing of psyllids is a destructive process with respect to the insect sample, it is hard to validate that a negative qPCR result is indeed negative because Las were not present, or instead due to degradation of the bacterial DNA over time on the card. In order to determine if time on yellow sticky traps affects qPCR results for the HLB-associated bacteria, Las-infected ACP were placed on yellow sticky traps and tested after defined periods of time by qPCR. In two separate tests, the incidence of Las-positive ACP declined with increasing time on the yellow sticky traps, indicating that the testing of ACP obtained from yellow sticky traps may not be the best method to survey for the presence of Las.