Florida Citrus Advanced Technology Program

QUARTERLY & FINAL REPORTS: Control of Citrus Greening, Canker & Emerging Diseases of Citrus

Instructions Complete the fields based on your project specs. When finished, save the form to your local disk using a unique name. Then, go to **http://research.fcprac.com**, and log in with your user name and password using Researcher Login in the lower left. Find this project title and click on **Submit a Report**. Update your profile information if needed, then upload this report as directed.

2009-2010 REPORT	CATEGORY (drop-down)	TODAY'S DATE (m/d/yr)
○ *Quarterly Report* ○ *Annual Report* ◉ *Final*	Management	7/20/10

WHAT IS THE "HEADLINE" FOR THIS REPORT (e.g. a one-sentence "newspaper headline" describing what you accomplished)

Efficacy studies of interplanting citrus with guava as a control strategy for HLB.

TITLE and CONTACT INFORMATION

Proposal Title Efficacy of interplanting citrus with guava as a control strategy for huanglongbing.

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Phone 772-462-5883	*Project Duration (years)* 3 *Year of Project* 1
Organization USDA, ARS	*Total Direct Funds (current year)*

REPORT UPDATE (650 words; provide details about your headline)

This project is intended to examine the potential disease control of citrus huanglongbing (HLB) by interplanting with guava. In Vietnam guava has been shown to be an effective deterrent to HLB, slowing the disease and keeping plantings alive for up to 15 years that normally succumb in 2-3 year. For all plots and experiments, Guava trees, (Vietnamese white cultivar) were propagated and grown to appropriate size requiring ~1 year.

Both nursery and field citrus trees are assayed for HLB every 60 days, and have been assayed multiple times. Psyllid populations are also being monitored continuously every two weeks within interplanted plots to document any repulsion of the vector due to guava. Data collection continues and is currently ongoing.

Guava vs no guava nurseries: Two nursery sites, a guava protected citrus nursery versus an unprotected nursery, have were established with disease free, PCR-negative citrus trees (2 sweet orange and 1 grapefruit cultivars) in June 2009 and were located in the protected and unprotected plots. The guava trees were were grown to appropriate size as indicated in Vietnam prior to outplanintg. **To date no HLB+ plants have been identified in the nursery plantings after multiple assays!**

Citrus/guava interplantings: 3 commercial plantings with multiple replications were established. This required considerable time (1 year per Vietnam protocols) to grow the guava trees were propagated and grown to transplant size. One trial was established in a commercial orchard with collaborators in Southern Gardens Citrus. A second trial planting was established at the USHRL Picos Farm in Fort Pierce. A third was established in a Consolidated grove in Martin county but the plantation was sold and removed before data could be collected.

Severe frosts during 2008/2009 and again during 2009/2010 winters affected both the USHRL and the Southern Gardens plots. This causing a delay in the experiment. Damage has been extensive in both plots, as guava is frost intolerant. In the Southern garden plots, damage was more severe. Damaged guava trees were pruned or replaced in that the Southern Gardens plot and plots were interplanted with citrus in November 2009. Renovation of the USHRL plot was less extensive, and the guava were interplanted with the citrus as of August 2009 in the USHRL Picos Farm plot.

To date, several plants have been identified in the USHRL plots after multiple assays. The majority of these positives have occurred as the result of an edge effect. That is, treatment plots closest to an existing HLB+ planting of Valencia were affected. However this data is insufficient to draw any conclusions as yet. To date no HLB+ plants have been identified in the SG plantings after multiple assays.