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*	Other	10/15/10

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

Recovering Citrus Germplasm from Florida

TITLE and CONTACT INFORMATION

Proposal Title Recovery of Citrus Germplasm from Florida

Principal Investigator Richard Lee	*PI Last Name* Lee
Email Richard.Lee@ars.usda.gov	*FDACS Contract Number* Lee-119
Phone 951-827-4399	*Project Duration (years)* 3 *Year of Project* 2
Organization USDA ARS NCGRCD Riverside, CA	*Total Direct Funds (current year)* $36,970

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

The purpose of this project is to preserve citrus germplasm in Florida that is threatened by loss due to huanglongbing (HLB) and citrus canker.

A priority list of germplasm has been established and most of the selections have been established in a secure greenhouse at USDA ARS Ft. Pierce. At the USDA ARS Repository, Riverside, two additional growth chambers for use in thermotherapy and a better microscope for use in shoot tip grafting have been purchased from other funds, and will soon be available to help increase the capacity for therapy of selections. In cooperation with USDA ARS Ft. Collins, the use of cryotherapy for elimination of HLB and other graft transmissible pathogens of citrus is being explored at the USDA ARS Ft. Pierce location. In Riverside using the Candidatus Liberibacter psyllaurous in tomato as a model system, buds stored under cool conditions for two weeks are no longer capable of transmitting the bacterium when grafted onto healthy tomato plants. Similar trials are underway using stubborn, a phloem limited prokaryote, as a model system, but it is too early to get a final reading of results. Efforts are continuing to get adoption of the "Citrus Passport" program whereby the three agencies (Florida Citrus Germplasm Introduction Program, Gainesville, FL; California Citrus Clonal Protection Program, Riverside, CA; and USDA ARS National Clonal Germplasm Repository for Citrus and Dates, Riverside, CA) which may import citrus varieties into quarantine for therapy, indexing and release to the citrus industry have harmonized their protocols and recognize the therapy of selections which comes from other programs, with a protocol for short term indexing of common graft transmissible pathogens which may be completed within 6-8 months, and then be able to release the selection to the respective citrus industry. Implementation of this "Citrus Passport" program will facilitate returning clean selections to Florida from this project to recover and preserve Florida citrus germplasm.