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	1/16/10

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

Support for the Southern Gardens Diagnostic Laboratory

TITLE and CONTACT INFORMATION

Proposal Title Providing Additional Support for the Southern Gardens Diagnostic Laboratory

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Phone 863-902-2249	*Project Duration (years)* 2 *Year of Project* 1
Organization United States Sugar Corporation	*Total Direct Funds (current year)* 226,444

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

The Southern Gardens Diagnostic Lab (SGDL) started receiving grower samples on Oct. 31, 2006. Through Dec. 2009, the lab has received and has run 124,204 and123,872 grower samples, respectively. In addition the lab has run tests on 3,678 psyllid samples and 16,825 samples for Southern Gardens for a total of 144,375 samples tested by real-time PCR since the inception of the SGDL. For the calendar year 2009, 48,700 grower samples were tested versus 40,640 for 2008. This represents a throughput increase of 20%. The total number of grower samples received for 2009 was 44,856 versus 49,802 for 2008. This represents a decrease in sample volume of 10%.

The lab is now fully staffed and the current capacity is approximately 1,600 samples per week. With the increased capacity, we are continuing the development of additional process improvements to increase the capacity and accuracy of the laboratory. Included in these process improvements are the use of nested PCR in psyllid testing, the use of alternate primers to double check questionable results, and the development of procedures to automate the extraction of DNA. As the procedures are developed they are incorporated into the routine operation of the lab only after successful long-term use in parallel with the already proven and validated protocols.

The lab continues to provide training to personnel from other states and countries and also has served as a reference laboratory for laboratories that are just now coming online.