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	7/14/09

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 - July Quarterly Report

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)* 1 *Year of Project* 1
Organization United States Sugar Corporation	*Total Direct Funds (current year)* $6000 and $16,000

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

The Southern Gardens Diagnostic Lab started receiving grower samples on October 31, 2006. Through July 13, 2009, the lab has processed and tested 96,866 grower samples. In addition to the grower samples, an additional ~18,000 internal Southern Gardens samples have been processed over the same period. Although sample volume varies by month due to the temporal variability in symptom expression, monthly sample volume has steadily increased. For the period of time from January 1, 2008 through June 30, 2009, the lab received 70,959 outside grower samples or an average of 3,942 samples a month. During that same period of time, the lab analyzed 71,993 outside grower samples or an average of 4,000 samples a month. Therefore on the whole, the lab capacity met the demand. However, since the sample volume was not constant over the period, there were extended periods of time where the sample volume greatly exceeded the lab capacity resulting in extended turn-around times between sample receipt and the lab analysis. For example, during the period of time from August, 2008 through January, 2009, the average number of grower samples received per month was 5,606 samples a month (exceeded capacity by 1,600 samples a month) resulting in extended turn-around times in the spring. The current level of staffing is 2.5 FTE but additional funding has been received from FCPRAC to increase staffing in order to more adequately meet the expected sample volume going forward.

Samples have been received from over 224 individual entities and over 1700 different groves (and many more individual blocks). As noted earlier, there is some seasonality in the submission of samples that is also accompanied by a similar seasonality of the frequency of detection. The months with the highest frequency of detection were August through January (mean = 81% of samples positive) whereas the months with the lowest frequency of detection were March through June (mean=50% of samples positive). The highest frequency of infection has been found in sweet orange and grapefruit samples whereas the lowest frequency of infection has been found in Sunburst, Murcott and Orlando Tangelo. With respect to tree age and size, the highest frequency of infection has been found in trees 6-9 years of age and trees 6-9 ft tall. The lowest level of infection has been found in very young trees (<2years old) and in very large trees (>14ft tall). Based on row and tree data supplied by the growers, trees at the edge of the groves (both row ends and outer rows) appear to be more likely to become infected or express symptoms.

The lab has received visitors from multiple states and countries and has provided formal training to researchers from California, Florida, Argentina, Belize, Brazil, Costa Rica, and Mexico. Improvements continue to be made in the methodology resulting in more efficiency in the laboratory and reduced costs.

Beginning in June, 2008, the SGDL has begun receiving psyllid samples from growers with the aim of gathering statewide temporal psyllid HLB incidence data for use in the development of control programs.