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	7/13/09

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

Comprehensive management of Asian citrus psyllid

TITLE and CONTACT INFORMATION

Proposal Title Development and Delivery of Comprehensive Management Plans for Asian Citrus Psyllid (ACP) Control in Florida Citrus

Principal Investigator Stansly, P. A	*PI Last Name* Stansly
Email pstansly@ufl.edu	*FDACS Contract Number* 000
Phone (239) 658 3400	*Project Duration (years)* 3 *Year of Project* 2
Organization SWFREC - IFAS - University of Florida	*Total Direct Funds (current year)* $131, 853

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

This project is in its second year and has already has provided a comprehensive management strategy that is being used by many growers as we continue to make improvements. Tactics being employed include: (a) sampling plans for monitoring psyllid populations, (b) preemptive dormant sprays of broad-spectrum insecticides targeting adult psyllids, (c) systemic insecticides for young trees (d) a wide choice of tested, selective and broad-spectrum insecticides for use during the growing season based on scouting results, and (d) strategies for conservation and augmentation of biological control. Objectives and some of the corresponding achievements during this quarter are listed below.

1) Assist growers with planning and evaluation of field tests to develop site-specific season-long psyllid control on young and mature trees including active ingredients, timing, application methods, rates etc.

- SAR inducers and micro-nutrients did not statistically improve the quantity or quality of the harvest after one year although yields increased by 30% and visual differences of overall tree health were observed (see Report FCPRAC # 0179)

- Aerial application of broad spectrum insecticides reduced ACP adults although ground sprays with a speed sprayer were more effective. LV application of 435 Oil every 3 to 4 weeks at 2 gal./ac. during growing season appears to be working although populations were low. A single such application with spinetoram or dimethoate using LV ever other row was much less effective at reducing ACP populations than a speed sprayer running every row (see Report FCPRAC # 0210).

- Voluntary area wide spray: 80,000 acres were treated by air and many more by ground in a voluntary program last season promoted by Gulf Citrus Growers Association. A field survey coordinated by SWFREC-Entomology and DPI-CHRP documented greatly reduced psyllid populations compared with the few blocks left untreated. A survey was conducted in coordination with the Multi-County Cooperative Extension to evaluate pest control practices and attitudes regarding area wide control was responded to by 27 growers, managing groves of from 42 to 18,000 acres for a total of 107,000 acres of citrus in SW Florida. Results indicated wide adoption of the comprehensive strategy, with 97% of growers are planning preemptive dormant sprays, 97% using some type of sampling of which 95% used the tap sample, 76% flush observation, 14% Sticky traps, and 9% sweep net, with 85% of growers sampling > 3 times a year.

3) Accelerate testing of new chemical tools for psyllid suppression: (a) Laboratory bioassays with new products from DuPont and Gowen were finalized and some promising products under development, (b) Foliar application of spirotetramat, and fenproximate with 435 Oil or NIS (spirotetramat) during bloom 2009 suppressed psyllids for 2 months, (c) foliar and soil-applied field testing continued this summer. All field test results were published in Arthropod Management Tests and on our website http://www.imok.ufl.edu/entlab/.

4) Evaluate the economic feasibility of psyllid management strategies. The cost of two aerial dormant sprays is less than $25/ac each and could be as low as $15/acre earch depending on material, volume and distance from the airstrip. The cost of monitoring psyllids using the tap is about $25 per block up to 100 acres so could be done 20 times per year for as little as $5/ac total, depending on block size and would avoid unnecessary sprays during the growing season that could cost up to $50/ac. Details on website.

5) Provide an information bridge between growers and researchers: Since June 2009 we have (a) Conducted 2 scouting workshops, given 2 talks given at the Florida Entomological Society, and 5 grower talks, published an article in Citrus Industry and increased the volume of citations for the HLB database to > 1,600 references (see Report FCPRAC # 0004).