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*	Psyllid	10/15/09

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

Low volume sprays are effective in controlling psyllids.

TITLE and CONTACT INFORMATION

Proposal Title Evaluation and development of effective ultra low volume spray technologies for management of the Asian citrus psyllid

Principal Investigator Masoud Salyani & Lukasz Stelinski	*PI Last Name* Salyani & Stelinski
Email msi@ufl.edu & stelinski@ufl.edu	*FDACS Contract Number* 72693
Phone 863-956-1151 ext. 1225 & 1281	*Project Duration (years)* 2 *Year of Project* 1
Organization University of Florida/IFAS	*Total Direct Funds (current year)* 99058

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

Field work-

In the past quarter, we have focused heavily on testing of psyllid insecticides as low volume sprays (2 gal/a). This has included the optimization of chemistries that are labeled for the psyllid, such as Danitol, as well as testing of unlabelled compounds. For labeled compounds, we have investigated the effect of product rate and application timing. For unlabelled compounds, we have conducted efficacy testing at standard rates to generate the needed data for label changes. This season's low volume field trials were conducted with the LV-8 low volume applicator, which is becoming commonly used in the Florida citrus industry. In the past few months, we conducted 9 experiments and tested a total of 43 treatments in Florida citrus groves. Experiments were evaluated by counting psyllids and nymphs. In addition to low volume testing against Asian citrus psyllid, we also evaluated the efficacy of several products applied by low volume against the citrus leafminer. We found that the most effective treatments against psyllid applied by low volume (Pyrethroids) do not impact citrus leafminer populations. However, products known to be effective against psyllid when applied by standard volumes did show some effectiveness against citrus leafminer when applied by low volume. A manuscript on field trials is under preparation and will be completed over the winter months.

Laboratory work-

In the laboratory, we have been working on characterizing spray droplet size effect on psyllid control. The work involved establishing optimum application parameters for using our monodisperse aerosol generator (VOMAG) with the new signal generator. We have applied 'Lorsban Advanced' at six droplet sizes using different nozzle sizes. The spray trials have focused on the mortality (day 3 and day 7) of the egg, nymph as well as the adult psyllid. The other chemistries (Movento, Danitol, Provado and Sevin) will be tested as psyllid infested 'potted trees' become available. These trees are being rotated in the infesting area as space becomes available. Trees for the next two replications of Lorsban are currently being infested. A manuscript for the laboratory aspect has been started. It will include all the data for system characterization.