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	8/23/10

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

TITLE and CONTACT INFORMATION

Proposal Title Direct Grower Assistance: Development and Evaluation of Citrus Grower Psyllid Management Programs

Principal Investigator Michael E Rogers	*PI Last Name* Rogers
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Phone 863-956-1151	*Project Duration (years)* 2 *Year of Project* 2
Organization UF/IFAS/CREC	*Total Direct Funds (current year)* 107723

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

The objective of this 2 year project was to provide direct assistance to growers on the east coast in developing and evaluating their psyllid management programs. Dr. Pasco Avery was hired at the IRREC to provide direct grower support for this program. During the past 2 years, Dr. Avery and the personnel hired to work in his program aided growers on the east coast by helping to assess psyllid population dynamics under differing management regimes implemented in both organic and conventional citrus operations. This helped growers to get a better understanding of what does and does not work in terms of psyllid management. In addition to the direct extension type assistance provided, Dr. Avery also evaluated the use of the fungal pathogen Paecilomyces formosoroseus for control of the Asian citrus psyllid which growers indicated was of interest due to need for additional control measures due to difficulties meeting pesticide MRL requirements for export to foreign markets. Studies were conducted in both and field conditions to better understand what potential this fungal pathogen holds for managing ACP. The following is a list of publications and presentations by Dr. Avery resulting from this work:

Avery, P. B., W.B. Hunter, D.D. Hall, M.A. Jackson, C.A. Powell and M.E. Rogers. 2009. Novel delivery of the biocontrol fungi Isaria formosoroseus for managing the Asian citrus psyllid and reducing spread of citrus greening "huanglongbing" disease. Fla. Entomol. 92 (4): 608-618.

Avery, P. B., Wekesa, V. W., Hunter, W. B, Hall, D. G., McKenzie, C, L. Osborne, L. S., Powell, C. A. and M. E. Rogers. Antifeedant and lethal effects of the fungi Isaria fumosorosea on the Asian citrus psyllid Diaphorina citri. Biocontrol Science and Technology (submitted).

Avery, P. B., Hunter, W. B, Hall, D. G., Jackson, M. A., Powell, C. A. and M. E. Rogers. Potential of a new biopesticide for managing Asian citrus psyllid. Indian River Citrus Seminar – Ft. Pierce, FL, January 29, 2009.

Avery, P. B., Hunter, W. B, Hall, D. G., Jackson, M. A., Powell, C. A. and M. E. Rogers. 2009. Broad spectrum potential of the biopesticide, Isaria fumosorosea for managing insect pests of citrus. 42nd Annual Meeting of the Society for Invertebrate Pathology.

Avery, P. B., Hunter, W. B, Hall, D. G., Jackson, M. A., Powell, C. A. and M. E. Rogers. 2009. Investigations of the feasibility for managing the Asian citrus psyllid using Isaria fumosorosea. Proceedings of the International Research Conference on Huanglongbing: Reaching Beyond Boundaries – Orlando, FL, December 1-5, 2008
- published in American Phytopathological Society on their Plant Management Network (PMN) website.

This grower assistance project ended in spring 2010 with Dr. Avery taking a postdoc position with Dr. Lance Osborne at the UF Apopka REC. Dr. Avery will continue to work under Dr. Osborne on fungal pathogens which will likely include continuing research into the feasibility of managing ACP using fungal pathogens.