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	2/18/10

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

UF/IFAS CREC developing citrus investment model to evaluate emerging solutions to citrus greening.

TITLE and CONTACT INFORMATION

Proposal Title An Economic Model to Evaluate emerging Solutions Citrus Greening

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Organization UF/IFAS CREC	*Total Direct Funds (current year)* $50,000.00

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

PROJECT PARTICIPANTS: Ronald P. Muraro, Robert Allen Morris and Fritz M. Roka

This project is to develop an economic model to evaluate emerging management solutions to HLB/citrus greening as they are developed by other HLB researchers or industry representatives.
An Excel citrus investment model developed by UF/IFAS that uses the income approach to asset valuation is being modified to give it flexabilities to cover a range of potential variables needed to evaluate emerging HLB management technologies. The economic model has been designed so that cost, yield data, reset-replant strategies and annual tree loss rates specific to a particular grove situation can be entered by the user and override the default values of the Excel model.
Our initial focus of this project was to update all the default cost, yields and tree lost rates of the Excel model and to develop a user's guide for the citrus investment model.

The citrus investment model was modified to a adjust yields of remaining trees according to the number of resets that are replanted after trees are removed (HLB, blight/decline, etc.). The approach allows remaining trees to grow and increase tree yields based on the total trees removed within the three tree age groups: 1-3 years old; 4-10 years old; and greater than 11 years old. This preliminary tree yield expansion is being discussed with citrus horticultural scientists as to its "real world" application.

Many growers have been exploring a "foliar nutrient cocktail" spray program as an alternative approach to managing HLB-citrus greening with hope that it will extend the productive life of an HLB infected tree. Under the foliar nutrient program, a psyllid control spray-pesticide program is included but there are cost savings from no HLB scouting, no HLB tree removal and no resetting young trees. The complete foliar nutrient cocktail mixed costs about $600 per acre. We are modifying citrus investment model and an older UF/IFAS Excel citrus reset model to compare the "foliar nutrient" management program to the traditional HLB management program (scouting HLB tree removing along with or without reset trees). A preliminary discounted-present value comparison of traditional HLB management program and an alternative foliar nutrient HLB program was presented at the 2010 Citrus Show.

Work has begun to estimated the optimum replacement time for a citrus grove-block. Also, we are continuing to work on the Excel citrus investment model to add the ability to evaluate any new HLB management strategies being developed by other researchers. As new revisions are made, we will ask growers to field test the investment model.