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	10/14/09

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

The Fall 2009 Experiments Have Begun!

TITLE and CONTACT INFORMATION

Proposal Title Pre-Grading Fresh Citrus for Canker Prior to Dumping on the Main Packingline

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Organization UF/IFAS	*Total Direct Funds (current year)* $34,709.00

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

Funds for this study were received March 18, 2009. Since these experiments take place early in the season when fruit require degreening to meet market requirements, the bulk of the funds will be used in October and November when late summer/fall rains result in small lesions on green fruit and washing the fruit may inhibit degreening. As part of another project, we recently built a research grading line that will be used for this study and allow evaluation of a number of washing treatments and other variables on the ability to effectively grade the fruit to find canker lesions and other blemishes. Modifications to our research citrus washing line are complete to evaluate different washing techniques and we've arranged to run fruit over a local commercial packinghouse wash line. Preliminary results from earlier experiments were presented at the FSHS meetings June 2009 and a manuscript submitted and accepted as a peer reviewed publication in the next FSHS proceedings. These results showed that inhibition of degreening was significantly less when fruit were washed for only ~15 seconds on a high-pressure washer (HPW) compared to longer (1 to 2 min) brush washing only (no HPW). On October 6th, 2009 we began our first set of experiments using Fallglo tangerines that were either washed on a commercial line (the entire brush and HPW, brush washer only, HPW only, or ½ or ¼ time on the HPW), washed or washed and waxed (carnauba) on our research line, or were not washed at all but only passed over rollers on a grading table. Fruit from all these treatments were degreened under simulated commercial conditions and color development and weight loss measured almost daily. The fruit continues to be evaluated. The week of October 19 we are scheduled to conduct another, larger study using navel oranges and Ruby Red grapefruit. In all, we plan to evaluate different methods of washing on fruit coloration during and after degreening, total required degreening time to reach acceptable color, and the affect of fruit cleanliness, presence of other peel markings (i.e., windscar, melanose, etc.), speed of fruit travel, lighting conditions, roller color, grading area width, and the number of graders per unit area on the ability to detect fruit with canker lesions and other surface defects.