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*	HLB Pathology	2/26/10

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

Survey of HLB in seedlings from seed of HLB-affected trees from groves and citrus nursery seed blocks is in progress

TITLE and CONTACT INFORMATION

Proposal Title Transmission of HLB by citrus seed

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Organization UF, Citrus Research and Education Center	*Total Direct Funds (current year)* $36,561

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

Objective 1: Survey and confirmation of HLB in seedlings from HLB-affected trees. 500 seedlings grown from seed extracted out of mild to severely HLB-affected fruit from Pineapple orange and Murcott tangor groves in Hendry Co. were assayed for HLB detection. All seedlings were negative for HLB detection by PCR in repeated assays in July and Nov. 2009.
Objective 2: Thermotherapy of HLB-affected seed for the same seed sources under Objective 1 were treated at 125F, 130F and 135F to test for the effect of heat treatment on HLB detection in seedlings. Thermal treatments were lethal to Murcott, but not Pineapple seed. The emergent seedlings at 125F (142), 130F (98) and 135F (97) were PCR tested. All seedlings were negative for HLB in repeated PCR assay in July and Nov. 2009.
Objective 3: In October 2009, seed source trees in two Florida nurseries were found positive for HLB by FDACS-DPI (Nursery 1) or Southern Gardens Diagnostic Lab (Nursery 2). Discovery of infected seed source trees in two Florida citrus nurseries identifies a potential (but unconfirmed) risk of outdoor seed source trees acting as a source of inoculum for introduction into nursery propagations. In Nursery 1, seed was collected from symptomatic branches of two sources of Swingle citrumelo, four sources of 'Kuharske' Carrizo citrange and one source of Cleopatra mandarin. In Nursery 2, seed was collected from one source of Sekwasha mandarin. From 63 to 205 seedlings from each source provide enough leaves for testing in February 2010.