CITRUS ADVANCED TECHNOLOGY PROGRAM

QUARTERLY & FINAL REPORTS: Control of Citrus Greening, Canker & Emerging Diseases of Citrus

▶ INSTRUCTIONS

(●) *Quarterly Report* ( ) *Annual Report* ( ) *Final*

Required: What is the "headline" for this report (e.g. a one-sentence "newspaper headline" describing what you accomplished)

New Hosts for the Pysllid May Not Be Hosts for the Pathogen

Proposal Title

Alternative Hosts for HLB to Assist in Disease Management

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
10/15/10	Citrus Research and Development Foundation	Infection Consequences

REPORT UPDATE (500 words; summarize your accomplishments)

Esenbeckia berlandieri (jopoy), Amyris madrensis (torchwood), Choisya ternata and C. arizonica were subjected to psyllid inoculation using the psyllid, Diaphorina citri. As reported all of these hosts were new ones for the psyllid and in transmission experiments the psyllid did survive and in some instances layed eggs on these hosts. To date only Choisya ternata again was found positive for Liberibacter asiaticus. Similar transmission tests in quarantine using dodder to infect Choisya ternata and Choisya arizonica with L. africanus but no positive results have been found. Graft inoculation tests with these hosts also showed that they were graft incompatible with citrus. As previously reported Severinia buxifolia has been determined to be a host for the L. asiaticus and transmission to citrus was obtained. Some difficulty in getting repeated positive results have recently occurred. This is under study. It may be similar to results found with Murraya paniculata. Primers to a different region have been produced and will be used to verify results. A new primer set and probe to detect all Liberibacter species including the potato bacterium was developed and successfully tested. Further tests are underway by various labs to confirm. Work with IAPAR73 is ongoing using psyllid transmission tests rather than grafting to determine if this cultivar is tolerant or resistant to L. asiaticus. Numerous propagations of this cultivar have been made and are ready for testing against L. americanus and L. africanus.

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Organization University of Florida

Contract Number 16

Project Duration (years) 3 *Year of Project* 2

Total Funds (current year) $204,325.00

SUBMIT REPORT

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.