CITRUS ADVANCED TECHNOLOGY PROGRAM

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

SELECT PERIOD March 2014

(●) *Quarterly Report* ( ) *Final*

Proposal Title

Further characterization of HLB resistant clones of selected citrus varieties

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
4/15/14	Citrus Research and Development Foundation	Unclassified

REPORT UPDATE (500 words-It is not necessary in this public report to disclose your institution's proprietary information or intellectual property.)

The project entitled "Further characterization of HLB resistant clones of selected citrus varieties" (project no. 758) is aimed at conducting experiments to understand the basis of HLB tolerance in Aurantioideae with genera sexually compatible with citrus like Microcitrus, Eremocitrus and Poncirus. Research conducted this quarter (from Jan, 2014 to March, 2014) consisted of:

a). Second batch of pollinations conducted in Riverside (Citrus Variety Collection) using HLB tolerant and susceptible accessions. This year we have utilized certain mandarin cultivars known to be more tolerant to HLB than others based on field trials in Fort Pierce by collaborators. The crosses between these "tolerant" mandarins and "resistant" citrus relatives (as determined by our previous trial) is likely to yield useful resistance/tolerance to HLB. We have now performed over 1100 crosses using mandarin and pummelo as seed parents. Based on previous year's results, we were able to select seed parents that are likely to set fruit when crossed with the pollen from HLB resistant citrus relatives.

b). Seeds collected from previous year's pollinations were germinated in the greenhouses in Riverside for confirmation of genotypes. These experiments are in progress. A part of the seeds will be sent to collaborators in Fort Pierce in the next few weeks for field evaluation of resistance.

c). One batch of selected HLB tolerant and susceptible seedlings that were psyllid challenged in Fort Pierce (Hall lab) were used for making RNA extractions in Fort Pierce. The samples are now being processed and analyzed. The experiment continues in Fort Pierce and sampling will be done periodically according to our original plan.

We are on track as per our proposed milestones.

PI First Name Chandrika

PI Last Name Ramadugu

Email chandram@ucr.edu

Phone 951-902-8787

Organization University of California Riverside

Project Number 758

Project Duration (years) 2 *Year of Project* 1

Total Funds (current year) $85,000.00

Form PR-12 Quarterly Reports **SUBMIT REPORT**

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.