CITRUS ADVANCED TECHNOLOGY PROGRAM

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

SELECT PERIOD June 2013

(●) *Quarterly Report* ( ) *Final*

Proposal Title

Identification and mapping of the genes controlling resistance to Huanglongbing (HLB)

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
8/27/13	Citrus Research and Development Foundation	Citrus Genomics

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

Plants of many but not all individuals from within the mapping population have been propagated to provide materials for greenhouse phenotyping via graft inoculations. These trees are being grown to a size suitable for inoculation with HLB infected budwood in an approved greenhouse structure at the CREC. We cannot accommodate the entire population in replicated fashion because of greenhouse space limitations, so we are taking the approach of testing subsets in the greenhouse and comparing this with phenotypes as seen in the replicated field planting. Recently, plants in the field were observed for symptoms of HLB. The site where these are being grown is under very high pressure and the trees are not regularly sprayed for psyllid control. Unfortunately, the soils at this site are high pH and do not support vigorous tree growth, they produce nutrient deficiency symptoms, and the trees are Citrus x Poncirus hybrids; therefore recognizing obvious HLB symptoms is difficult. We plan to revisit and record observations in the autumn when symptoms may be most easily seen. We selected a subset of trees to develop baseline qPCR values as we proceed to assess infection by CLas over time. DNA was extracted from these trees as well as positive and negative controls, and qPCR was run. We were able to detect CLas in some but not all of the trees. The GoldenGate SNP assay platform, developed under another project for genotyping applications, was used and data produced have been preliminarily analyzed, that will lead to a relatively high density genetic linkage map as proposed. The visiting scholar we assigned to this project has continued in carrying out the scheduled activities of the project.

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Organization UF-CREC

Project Number 536

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

Total Funds (current year) $90,225.00

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

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.