CITRUS ADVANCED TECHNOLOGY PROGRAM

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

SELECT PERIOD December 2013

(●) *Quarterly Report* ( ) *Final*

Proposal Title

Characterization of Huanglongbing (HLB) survivors in the severely infected and/or abandoned groves

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
1/3/14	Citrus Research and Development Foundation	Conventional Citrus Breeding

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

We have continued to monitor previously identified candidate survivor trees at the CREC, the GCREC, and some Polk County commercial groves where we have planted out materials from the CREC breeding program. Most of the trees now have begun to display symptoms after more than 18 months of observation, though there remain a few still unaffected as of December 2013. Trees at an abandoned location in Palm Beach County, that retain reasonably good condition and freedom from obvious symptoms, have been sampled for both budwood and root tissues. Budwood samples were propagated onto healthy rootstock seedlings at the CREC. In addition, root samples were provided. In the past three months we have collected rootsprouts from some of the trees that were decapitated; we have propagated from these rootsprouts, by budding and by rooted cuttings. We extracted DNA from these sprouts and compared their DNA fingerprints with what we produced from feeder roots collected previously, as expected, the fingerprints were identical. These rootstocks will be increased and grown off for future experiments, to test their responses to HLB. New rootstock samples collected from trees were used to confirm nucellar embryony. Thus far, all except one of the rootstocks collected has been shown to be a nucellar seedling of the presumed rootstock. Routine fingerprinting of all scion varieties sampled has shown them all to be true to type. We have had information on several other possible survivors collected, and in these cases it was decided to allow more time to determine whether the these trees warranted more careful analysis because they generally represented quite a few trees in each location. In other instances, the reported survivors actually exhibited more symptoms than would qualify as a "healthy" survivor. Two hybrids of unknown origin that we have been observing for several years in CREC groves, and were found to be HLB-free have begun to display minor and scattered symptoms. Recent qPCR has also shown the presence of CLas, though at very low levels.

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Organization UF-CREC

Project Number 537

Project Duration (years) 3 *Year of Project* 1

Total Funds (current year) $14,488.00

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

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.