CITRUS ADVANCED TECHNOLOGY PROGRAM

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

SELECT PERIOD December 2015

(●) *Quarterly Report* ( ) *Final*

Proposal Title

Citrus nutrition studies for improved survival of HLB-affected trees

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
2/1/16	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.)

Progress made in the second quarter of this study has focused on grove selection and the initial sampling of leaf tissue and soil. Work has also continued regarding development of soil conditions for root hair proliferation

Objective 1: Leaf nutrient thresholds
All three study areas have selected groves and trees for this phase of the research. The Ridge focus area has selected 11 study grove blocks (round orange) with 5 trees per block. The Indian River area has selected 10 study grove blocks (both round orange and grapefruit). The South Florida area has also selected grove blocks for sampling. The initial measurements that have been taken include LAI, tree volume, PCR, leaf nutrition, leaf starch content, soil nutrition, organic matter content, and physical properties. Leaves for nutrition were measured for SPAD, leaf area, dry mass, and scanned using a flatbed scanner for color as well as leaf circumference and leaf area.

Objective 2: Determine soil conditions that favor root hair and VAM proliferation
i. As mentioned in Objective 1 above, initial soil sampling at the 0-6 inch and 6-12 inch depth has been completed and analysis is beginning. Percent OM, using Loss On Ignition has been completed for the ridge portion of the survey area and in the next quarter the initial samples from the remainder of the survey areas will be analyzed. Analysis includes, soil nutrient content, pH, CEC, and soil color.
ii. The cuttings that were placed in aeroponics tanks are continuing to be monitored and maintained with replacement solutions bi-weekly. The solution chemistries are still being fine-tuned and analyzed. Growth of the cuttings has been slow but is progressing. Analysis of the root development will be the next step of this portion of the study.

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Organization University of Florida

Project Number 15-023

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

Total Funds (current year) $91,720.00

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

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.