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

An integrated approach for establishment of new citrus plantings faced with the HLB threat

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
1/7/16	Citrus Research and Development Foundation	Epidemiology and Cultural Control

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

This overall 3 year project was focused on determining the optimum combination of chemotherapy, thermotherapy, and nutrient therapy that can be registered for use in field citrus and control HLB. In this quarter (Oct 2015 to Dec 2015), we continue to evaluate 1) the effect of Pen and SD on control of HLB disease by gravity bag infusion in the field; 2) the efficiency of effective chemical compounds (Pen, SDX, Pcy and Carv) against HLB disease by gravity bag infusion; 3) the effectiveness of a combination of chemotherapy, thermotherapy and nutrient therapy against HLB in the field trials.
The chemical compounds (Pen and EBI-602) and additional nutrients were applied to the heat-treated citrus for two times by foliage spray, using our optimized nano-delivery system. The variance analysis results indicated that there were significant differences in the chemical treatments, the heat treatments and their interactions. Pen was the more effective to control Las bacterium than EBI-602.
In this quarter, ten chemicals were prepared in two different concentrations of the nano formulations (0.1% and 1.0%) in the greenhouse test. The preliminary results showed that the concentrations of nano formulations had no different effects on the chemicals for control of Las bacterium. PEN and ZS were the most effective to eliminate the Las bacterium.
The effects of the integrated approach on the citrus fruits will be reported in next quarter.

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Organization IRREC-IFAS, University of Florida

Project Number 910

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

Total Funds (current year)

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

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.