CITRUS ADVANCED TECHNOLOGY PROGRAM

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

SELECT PERIOD March 2016

(●) *Quarterly Report* ( ) *Final*

Proposal Title

Influence of Thermal Therapy on Transmission of Candidatus Liberibacter asiaticus

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
3/18/16	Citrus Research and Development Foundation	Vector Management

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

A second thermal treatment was applied to trees in our field assay during late November 2015. Adults and nymphs were enclosed in mesh sleeves on trees for acquisition feeding approximately 5 weeks following treatments during early January and March 2016. Insect and leaf samples were collected after 10d of acquisition feeding or upon adult emergence to assess adult and nymph acquisition, respectively. These samples are currently undergoing nucleic acid extraction and PCR to determine CLas titers.

A second field site, consisting of a commercial grove in Lake Wales, was added to our project this quarter. We collected leaf samples this site for quantification of CLas titers. Trees are expected to be treated with thermal therapy in the next couple of weeks, and we'll do an adult acquisition trial on those in about 2 months.

led environmental chamber will be used to apply heat treatments to trees for use in subsequent acquisition experiments For the lab assay, we evaluated a fungicide treatment to improve the survival of the potted trees. Trees in the greenhouse tend to get secondary infection following thermal therapy, so once we have a method for improving the tree lifespan post treatment, laboratory thermal therapy assays will begin. Trees were inoculated with CLas three months ago, and will be tested using PCR during late March to confirm that they are positive prior to use in the lab assay.

PI First Name Kirsten

PI Last Name Pelz-Stelinski

Email pelzstelinski@ufl.edu

Phone 863-956-8666

Organization University of Florida

Project Number 941c

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

Total Funds (current year) 105,782

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

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.