CITRUS ADVANCED TECHNOLOGY PROGRAM

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

SELECT PERIOD March 2015

(●) *Quarterly Report* ( ) *Final*

Proposal Title

Diaprepes control using a plant based insecticidal transgene approach

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
6/15/15	Citrus Research and Development Foundation	Transgenic/Metagenomic Mediation of Resistance

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

Our project aims to provide durable long term resistance to Diaprepes using a plant based insecticidal transgene approach. In this quarter, as proof of concept to determine the root specific nature of the promoters (RB7, C1867 or SLREO), we have incorporated the promoter-gus sequences into N. benthamiana and several plantlets have been regenerated. These constructs were also incorporated into Carrizo citrange in the previous quarter, but we have had a severe Mould mite infestation in our tissue culture room which destroyed most the promoter-gus citrus plantlets. A repeat experiment to produce fresh carrizo citrange plants expressing the root specific promoters were carried out in this quarter and plantlets are being regenerated. The Carrizo citrange plants expressing a root specific promoter - insecticidal gene construct (GNA, APA or ASAL genes individually or stacked with the CpTI gene) were not affected by the mite infestation and several plants have been hardened and transferred to the greenhouse for growth.

PI First Name Manjul

PI Last Name Dutt

Email manjul@ufl.edu

Phone 8639568679

Organization University of Florida/CREC

Project Number 925

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

Total Funds (current year) $38,203.00

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

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.