CITRUS ADVANCED TECHNOLOGY PROGRAM

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

SELECT PERIOD December 2014

(●) *Quarterly Report* ( ) *Final*

Proposal Title

Plant Growth Regulator Fall Applications for Preharvest Drop Control in Hamlin and Valencia Orange-Single Application Grower and Replicated Trials

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
12/3/14	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.)

Test groves were arranged with 5 growers with 11 different tests, 4 of which were sprayed by growers. Seven tests were in Hamlin blocks and 5 are in Valencia blocks.

Materials included in tests are Citrus Fix (2, 4-D). Pro-Gibb (GA3), Headline, Gem, Abound and a PGR extract (Ascend) that contains an auxin, GA and cytokinin. Hamlin tests were applied in September or October and Valencia tests in November or December. Data collection includes preharvest fruit drop, total yield and juice analysis on some tests.

Hamlin trials are complete and a grapefruit trial has initial results. Some grower applied trial results are as follows: In one trial ProGibb + Citrus Fix reduced drop 8 % over the Control which had 27 % drop. Ascend reduced drop 17 % compared to its Control with 42 % drop. In this trial Headline had no effect. In another trial Headline reduced drop 3.5 % over the Control rate of 26.5 in healthier trees but in declining trees Headline had no effect. In a grapefruit trial initial data found no effect of Headline, but ProGibb, Citrus Fix and the two combined had 11, 13 and 14 % drop, respectively, compared to 20 % drop in the Control.

In small plot trials, 2, 4-D reduced drop of healthier and declining trees compared to the Control as did GA and GA + 2, 4-D combined for the declining trees. Neither Headline nor Ascend had an effect on fruit drop in this trial. In an 8 treatment trial near Auburndale, FL no treatment reduced fruit drop compared to the Control. In a trial near Dundee 2, 4-D + GA (18 % drop) and Headline (19 % drop) reduced drop compared to the Control which had 28.5 % drop. In a trial near Frostproof, two formulas of 2, 4-D and ProGibb + Citrus Fix combine reduced fruit drop to 20.5, 17.5 and 14.5 %, respectively, compared to the Control drop rate of 27 %.

Data collection for several Valencia trials is now underway. For the Hamlin trials either the traditional GA and/or 2, 4-D or Headline reduced fruit drop about ½ the time. No factor(s) were obvious as to why they did or did not work in any given instance.

PI First Name L. Gene

PI Last Name Albrigo

Email albrigo@ufl.edu

Phone 863 956-8707

Organization University Florida CREC

Project Number 779

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

Total Funds (current year) $11,542.00

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

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.