CITRUS ADVANCED TECHNOLOGY PROGRAM

QUARTERLY & FINAL PROGRESS REPORT FORM: Control of Citrus Greening, Canker & Emerging Diseases of Citrus

▶**PROJECT QUARTER END** December 2023 ◉ *Quarterly Report* ○ *Final*

Proposal Title

Right Leaf Sampling-The first and most critical step to good nutrition program

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
02/14/2024	Citrus Research and Development Foundation	Horticultural & Management

ABSTRACT (Executive Summary-public report-do not disclose proprietary information or intellectual property)

1. Please state project objectives and what work was done this quarter to address them:

1. To determine how many leaf nutrient sampling per year are required to effectively capture the tree nutritional status and adjust fertilizer accordingly.
2. To establish the relationship of leaf nutrient concentration with yield, fruit drop, and canopy density
3. To determine how the leaf nutrient (all 14 nutrient) levels change in the tree throughout the year.
4. To evaluate how the leaf age affects the leaf nutrient status.

In this quarter we harvested the hamlin tree, monitored fruit drop, final leaf sampling was done for nutrient analysis and leaf characteristics documentation. Other activities included data analysis as we have a massive data set.

The results from nutrient profile comparison of fruting and non fruiting branch show that fruting branch have severe deficiency of macro nutients as the fruit matures whereas the micronutrient depletes in non fruiting branch as the season progresses. Thus, we have initiated a small scale trial to fertilize the trees based fertilizing trees on nutrient levels in fruiting branch versus non fruiting branch. It is intersting to find that in many countries across the world, nutrient analysis is performed on fruiting branch as the growing fruit is major sink of nutrients. Thus, we believe it is imporatnt for FLorida citrus industry to know if fertilizing based on nutrients in fruiting leaf can benefit fruit production on HLB-affected trees.

2. Please state what work is anticipated for next quarter:

1. Data analysis and interpretation
2. Developing recomendations for nutrient analysis

3. Please state budget status (underspend or overspend, and why):
The budget is being spent as per the plan where major funds have been used for nutrient anlaysis.
We have also been able to hire staff for proper analysis and interpretation of data.

4. Please show all potential commercialization products resulting from this research, and the status of each:

Changes in leaf sampling recommedation will happen as a result of this research. We anticipate to have recommendations by december 2024 including whether to sample fruting or non fruting leaves.

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Organization UF/IFAS
Sponsor Project Number 20-011
Project Duration (years) 3 *Year of Project* 3
% Completion of Objectives (FDACS requirement) 95.00%

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.