CITRUS ADVANCED TECHNOLOGY PROGRAM

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

▶**PROJECT QUARTER END** August 2024 ◉ *Quarterly Report* ○ *Final*

Proposal Title

Management of tree health and huanglongbing disease pressure using advanced Zn formulations

Today's Date: 09/30/2024

Sponsoring Organization (drop-down): Citrus Research and Development Foundation

Category (drop down): 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:

The zinc formulations were obtained from TradeMark Nitrogen Inc. and Santra's Lab to support this year's field trials. We continued foliar sprays applied every 6 weeks at two different trial sites. Trials were conducted on both Hamlin and Valencia oranges.

For trial site 1, 400 ppm of both FertiZn and NuZn are continued to be studied for their effect on yield, juice quality and hormone balance. Auxin extrations and analysis are currently being peformed in the harvested Hamlin fruit.

For trial site 2, both 400 ppm and 800 ppm of both FertiZn and NuZn are being studied. As in previous seasons, greening severity on Valencia and Hamlin was evaluated. The results are being analyzed for statistical significance compared to the untreated and the Zn Sulfate controls.

Due to the significant increase in Zn content found in small citrus tree treated with FertiZn, the Zn ionic release of both FertiZn and NuZn is being quantified to understand this phenomenon. Additionally, the changes in particle size overtime will also be explored.

Moreover, data processing and writting of this study are underway for submission to peer review scientific journal.

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

By next quarter we expect to have the Citrus Greening Severity evaluation of the end of season and the yield for the Hamlin trial. These results will then be compared to previous years to assess the consistency of these fertilizers on yield and health.

3. Please state budget status (underspend or overspend, and why):
On track

PI First Name Swadeshmukul

PI Last Name Santra

Email ssantra@ucf.edu

Phone 407-882-2848

Organization: University of Central Florida

Sponsor Project Number: 22-002

Project Duration (years): *Year of Project*

% Completion of Objectives (FDACS requirement): 65.00%

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.