CITRUS ADVANCED TECHNOLOGY PROGRAM

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

▶ INSTRUCTIONS

(●) *Quarterly Report* ( ) *Annual Report* ( ) *Final*

Required: What is the "headline" for this report (e.g. a one-sentence "newspaper headline" describing what you accomplished)

Preparation for hardware setup

Proposal Title

Sensing system for symptomatic citrus greening infected leaves using polarized light

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
1/26/12	Citrus Research and Development Foundation	Pathogen/Disease Detection

REPORT UPDATE (500 words; summarize your accomplishments)

A graduate student was hired for developing the proposed HLB detection system using polarized light and conducting experiments for this project. A suitable camera and a frame grabber for this project was identified and purchased. Proper bandpass filters and polarized filters are currently being searched. A relationship between two cameras, their field of view (FOV) angle, and distance between the cameras and leaf sample were investigated, and an overlapped area for the two cameras can be calculated. The overlapped area is where we acquire images of leaf, which will be analyzed for HLB infection status. With a distance of 26.5 cm between the camera and leaf, an overlapped area becomes 4 cm × 6.17 cm, which is similar to leaf size. The actual distance will be determined based on the actual size of an imaging area needed. A leaf measurement system was designed for detecting HLB infection status. The next step will be to acquire necessary filters, and to test the cameras in a laboratory setting.

PI First Name Won Suk

PI Last Name Lee

Email wslee@ufl.edu

Phone 352-392-1874 Ext. 227

Organization University of Florida

Contract Number 11-124-423

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

Total Funds (current year) $55,500.00

SUBMIT REPORT

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.