In Auburn, Alabama, efforts have been made to establish a program for obtaining pathogen-tested propagative citrus plant material and the establishment of a foundation planting to maintain and distribute citrus propagative materials of common commercial cultivars and unique regional cultivars. There is a need for clean citrus propagation material to be available for growers and propagators within Alabama.

The citrus industry in Alabama currently is relatively small (~15,000 trees) and predominately Satsuma cultivars, but has been expanding in recent years to meet the demand of regional markets. With the identification of HLB-positive plants in southern Alabama in 2017, the nursery industry is in flux currently, and the established foundation planting of clean citrus plant material has become quite important. Updated quarantined areas within the state are expected. Also, the growing areas for citrus are in close proximity to states with quarantined diseases, and plant material can be easily moved across state lines without detection.

**Foundation Collection**

A foundation collection of 17 citrus cultivars, 3-8 plants of each, has been maintained for several years at the Paterson Greenhouse Complex, Auburn University, Auburn, Alabama. These container-grown plants are in a renovated greenhouse with insect screening surrounding fans and cool pads. Plants are tested for pathogens biannually. There are approximately 200 rootstock seedlings in 1-3 gal air-root-pruning containers that were recently budded to include new citrus cultivars and propagate additional plants of cultivars already in the foundation planting. These rootstock seedlings and air-root-pruning containers of different sizes were obtained to grow more vigorous plants in order to increase the budwood supply, with the goal of eventually having these plants in 15 gal containers.

Previous NCPN funds were used to establish container plants of citrus cultivars commonly used and requested for ultimate use in Alabama, primarily Satsuma mandarin cultivars. NCPN funds have been used to renovate a greenhouse to hold foundation plant materials at the Paterson Greenhouse Complex, Auburn University, and test these plants for pathogens biannually. NCPN funds have also been used to test for pathogens in citrus used for propagation by nurserymen and/or for inclusion of additional cultivars in foundation planting.

**Diagnostics**

Foundation plant materials are tested for pathogens at the Auburn University Plant Diagnostics Lab.
Foundation block materials are tested for *Candidatus Liberibacter* spp. (HLB), *Xanthomonas axonopodis* pv. *citri* (citrus canker), Citrus tristeza virus (CTV), *Xylella fastidiosa* (CVC), Citrus leprosis virus (CiLV), *Elsinoe australis* (sweet orange scab - SOS), and *Guignardia citricarpa* (citrus black spot - CBS). In addition, material will be tested for larviruses using universal larviirus primers. Citrus viruses in this group include: Citrus variegation virus (CVV), Citrus crinkly leaf virus (CCLV), and Citrus leaf rugose virus (CLRv). Also, we solicit “mother plant” samples for testing the above listed diseases from the primary nurserymen that produce the vast majority of citrus in state. Complete sampling instructions are provided to the nurserymen.

The identification of the Asian citrus psyllid (ACP) in AL during 2007, the detection of citrus greening or HLB in 2017, and the federal ACP-HLB quarantine prompted the State of Alabama to initiate a program to ensure that clean budwood is available to growers and propagators. The first identification of HLB in Alabama occurred in June 2017. State regulations have been stiffened pertaining to the transport of citrus plant materials within and out of Alabama, and the amount of citrus plant material submitted for diagnostics has greatly increased.

In 2017, 737 citrus plants were tested for graft-transmissible diseases. Citrus greening was detected in a psyllid sample collected in Mobile County (Dauphin Island) by the Alabama Department of Agriculture and Industries (ADAI) during a routine citrus survey. It was subsequently detected from plant tissue at the same site. AIAI conducted a delimiting survey within a 5-mile radius of the original detection. Citrus greening was detected in one other citrus tree on Dauphin Island. During a routine survey of Baldwin County, citrus greening was detected from another psyllid sample and subsequently 2 citrus trees at one residence in Orange Beach. Another delimiting survey of the area was conducted and 37 additional infected trees were detected. Further surveys are planned. Auburn University's Plant Diagnostic Lab is NPPLAP certified.

**Stakeholders**

In Alabama, the stakeholder groups include the AL Farmers Federation, AL Fruit and Vegetable Growers Association, AL Cooperative Extension System, AL Dept. of Agriculture and Industries, State of Alabama Farmers Market Authority, AL Satsuma Growers Association, as well as the Alabama Citrus Greening/Canker Working Group that was established to address the citrus greening and upcoming citrus canker quarantine. There are also university research and extension personnel involved at both the state and federal regulatory levels as well as local growers.

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