| Project Title | Project Description | Funded Amount | Cooperator | State | Goal Area |
|--|--|---------------|--|-------------------|-------------------------------------|
| Development of a root sampling protocol for early detection of <i>Huanglongbing</i> (HLB or citrus greening) | This project will develop a root sampling strategy that is designed to detect pre-symptomatic infection | \$437,280 | Texas A&M Kingsville | Texas | Pre-symptomatic detection of HLB |
| Canine Detection of Citrus for HLB | Detector dogs have proven to be highly adept at detecting citrus canker and early results suggest they will be an effective early detection tool for HLB. | \$627,768 | CCK9 Training | Multiple States | Pre-symptomatic detection of HLB |
| Canine Detection of Citrus for HLB | Detector dogs have proven to be highly adept at detecting citrus canker and early results suggest they will be an effective early detection tool for HLB. | \$179,177 | North Carolina State University | Multiple States | Pre-symptomatic detection of HLB |
| Standardization of antibody- based early HLB detection methods for near term applications | This project will compare several promising early detection tests that utilize tools useful in detecting human diseases in order to provide an early detection tool for growers. | \$428,154 | University of California, Riverside | California, Texas | Pre-symptomatic detection of HLB |
| Treatment of Bicarbonates in Irrigation Water and Soil in Florida Citrus Groves Affected by HLB. | This project aims to improve root health by lowering the pH of the irrigation water and soil so that nutrients are available for an overall healthier tree in areas where bicarbonate levels are high. In so doing trees are better able to be productive even if HLB infected. | \$172,916 | University of Florida | Florida | Sustainability |
| Integrated Management of HLB for Sustainable Citrus Production in Florida Using an Integrated Management Approach. | This project will combine a number of promising management strategies and evaluate using them as an integrated management approach for sustaining production of trees in | \$556,304 | University of Florida | Florida | Sustainability |

| Projects Funded through the Stakeholder Suggestion Process* | | | | | |
|--|---|-----------|--------------------------|---------|----------------|
| | three different disease categories: uninfected and newly planted, mildly infected and still productive, and heavily infected with declining production | | | | |
| High intensity management of a small, newly planted citrus grove utilizing ACP control, clean plant material, scouting, inoculum removal, and the tenets of area wide management | This project will demonstrate high intensity management of a newly planted grove using ACP control, clean plant material, scouting and removal of inoculum in conjunction with several different horticultural practices to demonstrate the best combination. As a result of these projects, grower will be provided with detailed information about best management practices for varied grove ages and conditions. As a result of these projects, grower will be provided with detailed information about best management practices for varied grove ages and conditions. | \$615,208 | University of Florida | Florida | Sustainability |
| Control citrus HLB for new plantings in Florida with integrated management | This project will combine a number of best management practices including nutritionals, chemotherapy, thermotherapy, and other practices. As a result of this projects, grower will be provided with detailed information about best management practices for varied grove ages and conditions. | \$987,000 | University of Florida | Florida | Sustainability |
| A Compact, Mobile, and Improved Tree Steaming System for Thermal Therapy of Individual Medium-sized Citrus Trees. | This project will provide a scalable, compact and mobile system for treatment of HLB-infected trees and make the system accessible and available for use by growers and | \$302,794 | University of Florida | Florida | Sustainability |

| Projects Funded through the Stakeholder Suggestion Process* | | | | | |
|---|--|-----------|---|---------------------------|----------------------|
| | researchers. Already growers have shown an interest in the prototype machine and this funding will provide an improved system which could be built easily by individual growers. | | | | |
| Widespread field testing of new HLB tolerant rootstocks | This project will establish numerous statistically valid field trials, covering the major Florida production areas, with a large group of new USDA and University of Florida rootstocks that have exhibited HLB-tolerance in early field trials, thereby more rapidly | \$403,810 | University of Florida and the USDA, Agriculture Research Service | Florida | Sustainability |
| Rapid propagation of HLB tolerant scions and rootstocks to US citrus | | \$600,000 | University of California-Riverside | California and Florida | Treatment |
| AG Harvesters Citrus Steam Machine | Thermotherapy has been shown to bring HLB infected trees back to productivity. This machine will deliver thermotherapy on a field scale, instead of on an individual tree level | \$963,887 | AG Harvesters | Florida | Treatment |
| Release and Establishment in California of <i>Diaphorencyrtus</i> <i>aligarhensis</i> , a Parasitoid of Asian Citrus Psyllid Sourced in Punjab, Pakistan | A second parasitoid shows great promise to control ACP and attacks a different life stage than the current agent. This project will produce and release this second insect, <i>Diaphorencyrtus aligarhensis</i> , in California to further reduce ACP populations. | \$330,563 | University of California-Riverside | California | Vector Management |
| Immediate Expansion of the Mass Production of | This project will develop improved field insectary cages of varying sizes | \$185,500 | SKEETA, Inc. | Multiple States | Vector Management |

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|---|---|----------------------|-------------------|--------|------------|
| <i>Tamarixia radiata</i> (a Biological Control Agent of | to expand mass production and introduction of <i>Tamarixia radiata</i> to | | | | |
| 0 | | | | | |
| the Asian Citrus Psyllid) | help to reduce Asian citrus psyllid | | | | |
| Using SKEETA Field | populations throughout residential | | | | |
| Insectary Cages to Reduce | areas and beyond | | | | |
| Populations of the Asian | | | | | |
| Citrus Psyllid (Vector of the | | | | | |
| Citrus Greening Disease). | | | | | |
| Development and | A novel attractant will be tested on a | \$640,750 | Texas A&M- | Texas | Vector |
| implementation of a novel | broader scale to kill increased | | Kingsville | | Management |
| attract and kill approach for | numbers of adult ACP and if | | U | | C |
| the management of ACP in | successful will provide an important | | | | |
| residential areas, active- and | tool to the industry. | | | | |
| abandoned commercial citrus | ····· | | | | |
| groves | | | | | |
| Development and field-level | This project will use dispensers | \$321,777 | Texas A&M- | Texas | Vector |
| testing of systems for | developed by ARS and place them in | ΨΞΞ1,111 | Kingsville | 1 UNUD | Management |
| . | residential trees in Texas to kill adult | | ixingsvine | | wanagement |
| dissemination of pathogen | | | | | |
| fungus to ACP on residential | ACP. | | | | |
| citrus | | | | | |

Total: \$\$7,752,888

• Most of these projects are two year projects.