CURRENT CRDF-FUNDED RESEARCH PROJECTS

Project #	Researcher	Affiliation	Project Title
701	Allan	USDA-ARS	Exploitation of Visual Stimuli for Better Monitoring and Management of ACP in Young Citrus Plantings
502	Arnold	USDA-ARS	High-Throughput Screening of Transgenic Citrus for HLB Resistance
702	Baldwin	USDA-ARS	Investigate effect of nutritional sprays on healthy and HLB-diseased orange fruit and resulting juice quality
508	Bowman	USDA-ARS	Development of Promising Supersour and Other Rootstocks Resistant to HLB
405	Brlansky	University of Florida	Transmission of the Emerging Citrus Pathogen Cytoplasmic Citrus Leprosis Virus by Endemic Brevipalpus mites
707	Brodersen	University of Florida	Are there declines in hydraulic conductivity and drought tolerance associated with HLB?
710	Brodersen	University of Florida	Identification of potential pathways for the spread of HLB through citrus vascular systems
510	Brown	University of Arizona	Molecular and cellular mechanisms that drive psyllid vector-Liberibacter interactions in the transmission pathway
583	Burns	University of Florida	Mature citrus transformation for surviving with citrus greening
711	Chougule	Iowa State University	Identification of Bacillus thuringiensis endo-toxins active against Adult Asian Citrus Psyllid
305	Dandekar	University of California, Davis	Improving the innate immune response of Citrus to HLB
712	Dandekar	University of California, Davis	Rapid testing of next generation chimeric antimicrobial protein components for broad spectrum citrus disease control
516	Dawson	University of Florida	Develop citrus resistant or tolerant to HLB using the CTV vector and transgenic approaches
517	Dawson	University of Florida	Determine the time and location of sources of HLB inoculum of trees after visit of infected psyllids
518	Dawson	University of Florida	Examination of poncirus genes for tolerance of sweet orange to HLB
308	Dewdney	University of Florida	Does huanglongbing (HLB) or associated nutrient deficiencies change asian citrus psyllid (ACP) feeding patterns?
309	Dewdney	University of Florida	How the Ca. Liberibacter asiaticus prevalence in groves can affect the acquisition and transmission by the Asian citrus psyllid

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411	Dewdney	University of Florida	Understanding potential inoculum sources of Guignardia citricarpa, the causal agent of citrus black spot
519	Dewdney	University of Florida	Strobilurin (QoI) resistance and the potential for resistance development to the newly introduced SDHI and DMI fungicides in tangerine-infecting Alternaria alternata populations of Florida
715	Dewdney	University of Florida	The leaf litter cycle of citrus black spot and improvements to current management practices
716	Dewdney	University of Florida	Improved fungicide control measures for pre- and post-harvest management of citrus black spot
162	Duan	USDA-ARS	Dissecting the Disease Complex of Citrus Huanglongbing in Florida
523	Duan	USDA-ARS	Screening and Cloning of Resistance Related Genes by RNA-Seq in Huanglongbing (HLB) Resistant and Susceptible Citrus Breeding Lines
717	Duan	USDA-ARS	Control citrus HLB by blocking the functions of two critical effectors encoded by 'Candidatus Liberibacter asiaticus'
525	Duncan	University of Florida	Managing root health by exploiting the benefits and mitigating the challenges afforded by nematodes
720	Duncan	University of Florida	Beyond BioVector: Can cold-tolerant nematodes effectively manage Diaprepes root weevil in advanced citrus production systems?
526	Ehsani	University of Florida	Precision foliar nutrient management using real time leaf analysis and a variable rate application technique
586	Ehsani	University of Florida	Low-cost solar thermal treatment for in-grove reduction of CLas inoculum
503	England	Mid Florida Citrus Foundation	The support of Citrus Research and Extension efforts by maintaining and improving the Mid Florida Citrus Foundation grove
530	Falk	University of California, Davis	Targetting Diaphorina citri using insect virus-induced systemic RNA interference
531	Falk	University of California, Davis	Transgenic RNAi-based psyllid control
413	Folimonova	University of Florida	How the efficiency of HLB transmission by psyllids varies depending on the stage of infection and plant development
532	Folimonova	University of Florida	A novel method for efficient inoculation of trees with the HLB bacterium
533	Folimonova	University of Florida	Deployment of a superinfecting Citrus tristeza virus-based vector in the field: a measure to effectively protect field citrus trees against HLB

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723	Gabriel	University of Florida	Exploiting the Las phage for potential control of HLB
71	Gmitter	University of Florida	International citrus genome consortium (ICGC): Providing tools to address HLB and other challenges
536	Gmitter	University of Florida	Identification and mapping of the genes controlling resistance to Huanglongbing (HLB)
537	Gmitter	University of Florida	Characterization of Huanglongbing (HLB) survivors in the severely infected and/or abandoned groves
538	Gmitter	University of Florida	Host genetic control of interference in Asian citrus psyllid life cycles
539	Gmitter	University of Florida	Creation, Development, and Screening of Citrus Germplasm for Resistance to HLB and Citrus Canker (Core Breeding)
615	Gmitter	University of Florida	Evaluation of Rootstocks Appropriate for Higher Density Groves and Advanced Citrus Production Systems Leading to a Sustainable, Profitable Florida Citrus Industry
724	Gmitter	University of Florida	Accelerating Citrus Gene Discovery for HLB Tolerance/Resistance
414	Gonzalez	University of Florida	Identification of small molecules that disrupt pathogenicity determinants of Liberibacter asiaticus
726	Gonzalez	Texas A&M AgriLife Research	A Bacterial Virus Based Method for Biocontrol of Citrus Canker; Development of Bacterophage Plaque Assays for Liberibacter
76	Gottwald	USDA-ARS	Efficacy of citrus canker control strategies, leafminer interactions, and bacterial survival
77	Gottwald	USDA-ARS	Epidemiology and disease control of HLB
728	Gowda	University of Florida	RNAi-mediated gene knock-down of selected members of 'Candidatus Liberibacter asiaticus' induced citrus transcriptome with CTV based silencing vector to prevent HLB infection of young citrus
416	Graham	University of Florida	Evaluation of foliar Zinc and Manganese application for control of Huanglongbing or associated symptom development
417	Graham	University of Florida	Novel formulations and application methods for bactericides to control systemic HLB infection
544	Graham	University of Florida	Improved management of citrus canker through use of systemic acquired resistance and more bioavailable copper bactericides
545	Graham	University of Florida	Phytophthora damage to roots: a potential contributor to reduced nutrient uptake and decline of HLB-affected citrus trees

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Project #	Researcher	Affiliation	Project Title
546	Graham	University of Florida	Mechanisms involved in biofilm formation and infection by Xanthomonas citri subsp. citri
730	Graham	University of Florida	Monitoring streptomycin resistance in Xanthomonas citri in support of FireWall registration for canker
731	Graham	University of Florida	Calcium carbonate may reduce root health and exacerbate HLB expression
732	Graham	University of Florida	Understanding and reducing early root loss in HLB affected trees
733	Grishin	HHMI/University of Texas Southwestern	Molecular basis of Cirtus Greening and related diseases gleaned from genome analyses of hosts and pathogens
547	Grosser	University of Florida	Applying Advances of Juvenile Citrus Transformation Technology
548	Grosser	University of Florida	Understanding and Manipulating the Interaction of Complex Rootstock Genetics and Constant Nutrition to Enhance the Establishment, Longevity and Profitability of New Citrus Plantings in HLB-Endemic Areas
736	Gruber	University of Florida	Expedited Indian River Evaluation of Tetrazyg Rootstocks Surviving the HLB-Gauntlet
315	Hall	USDA-ARS	Speedy evaluation of citrus germplasm for psyllid resistance
551	Hartung	USDA-ARS	Visualization and detection of proteins produced by 'Ca. Liberibacter asiaticus' in infected sweet orange plants and vector psyllids
552	Hartung	USDA-ARS	HLB resistance through transgenic expression of short chain fragment variable antibodies against key Liberibacter epitopes
555	Horvath	Two Blades Foundation	TAL Effector Induced Resistance to Xanthomonas
556	Horvath	Two Blades Foundation	Engineering PAMP-receptor mediated broad spectrum resistance to HLB and canker
558	Killiny	University of Florida	Disrupt the bacterial growth in the insect vector to block the transmission of Candidatus Liberibacter Asiaticus to citrus, the causal agent of citrus greening disease
559	Killiny	University of Florida	Blocking the Vector Transmission of Candidatus Liberibacter asiaticus to Stop the Spread of Huanglongbing in Citrus
422	Lapointe	USDA-ARS	Automated application of semiochemicals for control of citrus leafminer and citrus canker disease with application for control of Asian citrus psyllid and HLB
560	Lapointe	USDA-ARS	Application of an aggregation pheromone for management of the Diaprepes root weevil

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Project #	Researcher	Affiliation	Project Title
561	LaPointe	USDA-ARS	Determination of attractive host plant volatiles and sex pheromones of the Asian citrus psyllid using electroantennograms and coupled gas chromatograph-electroantennographic detection
423	Lee	University of Florida	Sensing system for symptomatic citrus greening infected leaves using polarized light
562	Lee	USDA-ARS	Development of new technologies to eliminate huanglongbing from budwood source trees
563	Lee	USDA-ARS	Analyzing Liberibacter isolates undetectable by standard diagnostic methods in Florida
749	Li	University of Connecticut	Development of Technologies Important for Creation and Commercialization of Transgenic HLB Resistant Citrus
564	Lindeberg	Cornell University	Expansion of online genome resources for bacterial pathogens of citrus and development of a diagnostic sequence database for Liberibacter species
566	Lu	University of Maryland, Baltimore County	Manipulating defense signaling networks to stimulate broad-spectrum resistance to HLB and other diseases in citrus
750	Ma	University of California, Riverside	Identification of key components in HLB using effectors as probes
567	Mankin	USDA-ARS	Acoustic trap for Asian citrus psyllids
424	McNellis	Penn State University	Functional disruption of the NodT outer membrane protein of Candidatus Liberibacter asiaticus for rootstock-mediated resistance to citrus greening using a phloem-directed, single-chain antibody
570	Mizell	University of Florida	Using a novel psyllid trap that captures and preserves psyllids and Candidatus bacteria for DNA analyses: understand vector-greening population dynamics and entomopathogens
572	Moore	University of Florida	Study the role of basal defense and chemical treatments in the response of citrus to HLB
573	Moore	University of Florida	Use of an early early flowering gene in citrus to rapidly transfer disease resistance from citrus relatives into cultivated types
752	Moore	University of Florida	Cell Penetrating Peptides for Citrus Genetic Improvement and Disease Resistance
425	Morgan	University of Florida	Effect of application rate, tree size and irrigation scheduling on leaf Imidacloprid concentration, psyllid populations and soil leaching
754	Mou	University of Florida	Application of a natural inducer of systemic acquired resistance and engineering non-host resistance in citrus for controlling citrus canker
771	Moudgil	University of Florida	Soft nanoparticles for uptake of potential HLB bacteriacide in citrus trees

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579	Orbovic	University of Florida	Citrus Core Transformation Facility as a platform for testing of different genes and/or sequences that have potential to render Citrus plants tolerant or resistant to diseases
427	Pelz-Stelinski	University of Florida	Insecticidal and antimicrobial peptides for management of Asian citrus psyllid
581	Pelz-Stelinski	University of Florida	Key unknowns about Asian citrus psyllid biology in Florida: Overwintering sites and alternative hosts
582	Pelz-Stelinski	University of Florida	Factors influencing transmission of the huanglongbing (greening) pathogen by the Asian citrus psyllid and methods for interrupting the transmission process
13	Powell	University of Florida	Control of the Asian citrus psyllid, Diaphorina citri Kuwayama with protease inhibitors and RNAi
584	Powell	University of Florida	Rapid and Efficient Delivery of Effective Compounds into Citrus Phloem for Treatment of HLB Bacteria
617	Powell	University of Florida	Screening effective chemical compounds against citrus HLB bacterium Candidatus Liberibacter--Further evaluation of selected compounds in greenhouse and field
618	Powell	University of Florida	RNAi InnoCentive Project Extension (Phase II): In planta Characterization of dsRNA Effect on all Psyllid Life Stages and Selection of Target(s) to Advance to Commercialization
324	Qureshi	University of Florida	Impact of insecticidal control of Asian citrus psyllid (ACP) on leafminers, mites, scales, thrips and their natural enemies in Florida
758	Ramadugu	University of California, Riverside	Further characterization of HLB resistant clones of selected citrus varieties
589	Roberts	University of Florida	Continuation of diagnostic service for growers for detection of Huanglongbing in citrus and psyllids to aid in management decisions
446	Rogers	University of Florida	Establishment of Citrus Health Management Areas (CHMAs)
590	Rogers	University of Florida	Enhancing psyllid control through a better understanding of the effects of pesticide applications on psyllid feeding and mortality
616	Rogers	University of Florida	Ultra High Performance Liquid Chromatography – Pesticide Residue Analysis
326	Roose	University of California, Riverside	A Chemical Genomics Approach to Identify Targets for Control of Asian Citrus Psyllid and HLB
179	Rouse	University of Florida	Cultural Practices to Prolong Productive Life of HLB Infected Trees and Evaluation of Systemic Acquired Resistance inducers combined with Psyllid Control to manage Greening
592	Rucks	FL Citrus Research Foundation	Protective Structure for Citrus Research Foundation Farm to Enhance USDA Citrus Breeding

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Project #	Researcher	Affiliation	Project Title
328	Santra	University of Central Florida	Copper loaded silica nanogel technology for long term prevention of citrus canker disease
759	Santra	University of Central Florida	Fixed-Quat: A novel alternative to Cu fungicide/bactericide for preventing citrus canker
593	Schumann	University of Florida	Advanced Production Systems (ACPS) for efficient, sustainable citrus groves
594	Schumann	University of Florida	Improving the uptake efficiency of nutrients applied to citrus foliage
598	Schumann	University of Florida	Bringing young citrus trees infected with Candidatus Liberibacter asiaticus into production using intensive horticultural management strategies
760	Setamou	Texas A&M University, Kingsville Citrus Center	Development of a novel system for dissemination of a pathogenic fungus to manage Asian citrus psyllid in abandoned citrus groves
330	Shatters	USDA-ARS	Targeting the Asian Citrus Psyllid Feeding Mechanism as a Means of Blocking Psyllid Feeding on Citrus
434	Stansly	University of Florida	Mass rearing and release of parasitic wasps to augment biological control of the Asian citrus psyllid (ACP)
447	Stansly	University of Florida	Role of Nutritional and Insecticidal Treatments in Mitigation of HLB in New Citrus Plantings
600	Stansly	University of Florida	Management Tactics Based on Psyllid Movement and Distribution in Florida Citrus
601	Stansly	University of Florida	Effective and Sustainable Insecticidal Control of Citrus Leafminer, Phyllocnistis citrella (Stainton) Lepidoptera: Gracillariidae) to Slow Spread of Citrus Canker Disease
763	Stansly	University of Florida	Optimizing Spatial Distribution of Pheromone Traps for Monitoring Citrus Leafminer and Related Species
439	Stelinski	University of Florida	How does infection of Asian citrus psylid (ACP) with Candidatus Liberibacter asiaticus (Ca Las) affect the behavioral response of the vector to healthy versus diseased citrus trees?
440	Stelinski	University of Florida	Testing of existing botanical insecticides for activity against Asian citrus psyllid to identify potential new tools for psyllid management
603	Stelinski	University of Florida	Non-neurotoxic chemicals as alternatives to conventional insecticides for Asian citrus psyllid management and prevention of insecticide resistance
604	Stelinski	University of Florida	Influence of plant nutrient regimes for extending the life of HLB-infected trees on Asian citrus psyllid biology and management
765	Stelinski	University of Florida	Continuation of insecticide resistance monitoring and management for sustainable control of Asian citrus psyllid

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Project #	Researcher	Affiliation	Project Title
766	Stelinski	University of Florida	Biotic and abiotic factors that cause Asian citrus psyllids to accept hosts: potential implications for young plantings and pathogen transmission
605	Stover	USDA-ARS	Development of Promising New Scions for Florida Citrus: Exploiting HLB Resistance and Tolerance
606	Stover	USDA-ARS	Production of Transgenic Commercial Scion Cultivars Resistant to HLB and Canker: Continued AMP Approaches and Novel Transgenic Strategies
607	Stover	USDA-ARS	A secure site for testing transgenic and conventional citrus for HLB and psyllid resistance
336	Triplett	University of Florida	Genome-enabled metabolic reconstruction of Ca. Liberibacter asiaticus and its use in culturing and controlling the pathogen
767	Triplett	University of Florida	Rapid identification of antibiotics useful in the control of citrus greening disease
769	Triplett	University of Florida	A team approach to culturing Ca. Liberibacter asiaticus
163	Triplett	University of Florida	Integrated approaches to discover pathogenesis-associated proteins from the causal agent of citrus greening disease and build new diagnostic tools
337	Wang	University of Florida	Control of Citrus Huanglongbing by disruption of the transmission of citrus greening pathogen by psyllids
445	Wang	University of Florida	Characterization of critical genes involved in spread of citrus canker pathogen Xanthomonas axonopodis pv. citri
608	Wang	University of Florida	Characterize the effect of application of beneficial bacteria (Microbe Program) on management of Huanglongbing
609	Wang	University of Florida	Control of citrus Huanglongbing by exploiting the virulence mechanisms of Candidatus Liberibacter asiaticus and inducing plant defense
610	Wang	University of Florida	Improve the management of citrus canker by protecting citrus fruits through interfering with biofilm formation and quorum sensing of Xanthomonas citri ssp. citri
611	Wang	University of Florida	Characterize the causal agent of citrus blight through metagenomic approaches and the effect of HLB on citrus blight diseased trees
773	Wang	University of Florida	Control HLB by developing antimicrobial compounds against Candidatus Liberibacter asiaticus
614	Young	University of Florida	Enhanced nutritional application and productivity in endemic HLB grove situations in Florida - a statistical approach to determine efficacy