Management of Diseases Caused by Systemic Pathogens in Temperate and Sub-Tropical Fruit Crops and Woody Ornamentals

WERA20 Annual Meeting

9:00 AM ~ 5:00 PM (Eastern) May 9th - 11th, 2023

Location:

National Agricultural Library, Main Reading Room

Building Address: 10301 Baltimore Ave #115, Beltsville, MD 20705

Agenda

DAY 1: Tuesday, May 9th, 2023

9:00 Welcome and meeting logistics

Welcome by Dr. Wendy Jin, Associated Deputy Administrator, USDA APHIS, Plant Protection Quarantine, Science and Technology

9:20 Business meeting

Naidu Rayapati, Administrative Advisor, Washington State University

Next year's location and host (secretary for this meeting)

Amer Fayad, National Program Leader, USDA-NIFA

10:30-10:40 AM **COFFEE BREAK**

Main program

Moderator: Yazmin Rivera

10:40 Getting Going on Getting it Right: Update on the activities of the Diagnostic Assay Validation Network (DAVN)

Kitty Cardwell, OSU, Institute of Biosecurity and Microbial Forensics

11:00 Phylogenetic relationships, putative vector, and possible seed transmission of Lindera severe mosaic emaravirus

John Hammond, USDA ARS, USNA, Floral and Nursery Plants Research Unit

- 11:20 Understanding the spread of grapevine leafroll disease in Washington state vineyards
 Naidu Rayapati, WSU, Irrigated Agriculture Research and Extension Center
- 11:40 High-throughput sequencing detection and initial molecular characterization of two novel emaraviruses co-infecting Callicarpa (beautyberry) are associated with a mosaic disease

Ramon Jordan, USDA ARS, FNPRU, US National Arboretum

12:00-1:00 PM LUNCH BREAK

Moderator: Oscar Hurtado-Gonzales

1:00 Characterizing virus populations associated with Cotton leafroll dwarf virus in the southern United States

Michael West-Ortiz, Cornell University, School of Integrative Plant Science Plant Pathology and Plant-Microbe Biology

1:20 Further Virome Analysis of Apple Decline Disease

Ruhui Li, USDA ARS, National Germplasm Resources Laboratory

1:40 Validated real-time PCR screening assay and synthetic control for detection of the apple proliferation pathogen 'Candidatus Phytoplasma mali'

Jarred Yasuhara-Bell, USDA APHIS, PPQ, Plant Pathogen Confirmatory Diagnostics Laboratory

2:00 Updates from Hawaii Five-0

John Hu, University of Hawaii at Manoa

2:20 PGQP Status Report for Fruit Trees

Oscar Hurtado-Gonzales, USDA APHIS PPQ, Plant Germplasm Quarantine Program

2:40-3:00 PM **COFFEE BREAK**

Moderator: Oscar Hurtado-Gonzales

- 3:00 Newly Discovered Virus and Virus-Like Entities Good, Bad, or Indifferent?
 Bill Howell, Northwest Nursery Improvement Institute
- 3:20 Developing a diagnostic standard for germplasm imports

Sage Thompson and Yilmaz Balci, USDA APHIS PPQ, Pest and Exclusion and Import Programs

3:40	The Canadian Fruit Tree Export Program and the Tree Fruit Diagnostic Testing Program
	Allison Gratz, CFIA, Tree Fruit Diagnostics, Science Branch

4:00 Round Table/Discussion: Conditional Releases-States and Federal crosstalk Dipak Poudyal, Oregon Department of Agriculture

5:00 Day 1 adjourns

DAY 2: Wednesday, May 10th, 2023

Special Topics: Citrus Health

Moderator: Peter Abrahamian

9:00 **Updates on Citrus yellow vein clearing in California**Victoria Hornbaker, California Department of Food and Agriculture

9:20 **Genetic characterization and diversity of citrus yellow vein clearing virus**Peter Abrahamian, USDA APHIS PPQ, Plant Pathogen Confirmatory Diagnostics Laboratory

- 9:40 MiFi®: Microbe Finder for Detection of Citrus Pathogens in Metagenomic Datasets Georgios Vidalakis, University of California, Riverside
- 10:00 Geographical distribution of natural hosts of Brevipalpus transmitted viruses associated with citrus leprosis disease complex in the United States
 Avijit Roy, USDA ARS, Molecular Plant Pathology Laboratory

10:20-10:40 AM **COFFEE BREAK**

Special Topics: Emerging Technologies in Plant Pathology

Moderator: Larissa Costa

- 10:40 Virus-mimicking artificial positive controls in a snap and Ghost Viruses updates loannis Tzanetakis, University of Arkansas
- 11:00 Development of machine learning models for detection of 'Ca. Liberibacter asiaticus' and its application in Citrus leprosis disease diagnosis

 Jonathan Shao, USDA ARS, NEA Office Area Director, Beltsville
- 11:20 **HiPlex for detection of fruit tree viruses and viroids**Larissa Costa, USDA APHIS PPQ, Plant Germplasm Quarantine Program

11:40 Isolation of phloem specific mRNAs using translating ribosome affinity purification (TRAP) to investigate pathogen host interactions in fruit crops

Tami Collum, USDA ARS Appalachian Fruit Research Station, Kearneysville, WV

12:00 CRISPR-Based Disease Detection Strategies for *Candidatus* Phytoplasma
Joseph Lagner, USDA APHIS PPQ, Plant Pathogen Confirmatory Diagnostic Laboratory
University of Maryland, College Park

12:20-1:20 PM LUNCH BREAK

- 1:20 Networking funding opportunities
- 1:45 Exotic pathogens of Citrus Collection tours at USDA ARS Beltsville
 Avijit Roy- 12 people group per tour-30 mins per group
- 3:00 Day 2 adjourns

DAY 3: Thursday May 11, Field trip

- 8:15 Pick up from National Agricultural Library parking lot
- 8:30 Visit USDA APHIS Building 580
- 10:15 Pick up from Building 580
- 10:45 Visit National Arboretum in Washington DC
- 11:00 Tour of Bonsai and Herb Garden
- 12:00 Lunch provided
- 12:45 Tour Herbarium
- 1:30 Tram tour of grounds
- 3:00 Depart from National Arboretum to Hotel