



# Joint Meeting of the Caribbean & Pacific Divisions



**APS Joint Caribbean and Pacific Division Annual Meeting Program**  
**Westward Look Wyndham Grand Resort & Spa, Tucson, Arizona**  
[1.800.722.2500 • 520.297.1151 • 245 E. Ina Road • Tucson, AZ 85704]  
**June 17-19, 2013**

**SUNDAY June 16, 2013 Arrivals – all day**

**Airport Transportation:** Arizona Stagecoach Shuttle (Tucson Airport, Baggage claim area), Taxi, and Rental Cars available from airport to hotel

**Registration 3-7pm**

**Poster Installation 3-8pm** (Coyote Room/Sonoran Ballroom)

**6:00-7:00** Margarita Reception; chips and salsa (Sonoran Foyer)

**Dinner on own**

(On site: *Lookout Bar & Grill*, serving light fare; *The Gold Room*, Five-Star Restaurant; restaurants nearby, by car)

**MONDAY June 17, 2013** [All Presentations: Sonoran Ballroom]

6:30-8:00 a.m. **Breakfast** (Sonoran Rooftop)

7:00-8:00 a.m. **Registration** (Sonoran Foyer)

8:00-8:15a.m. **Opening Remarks:** Judith Brown, President APS-CD and Themis Michailides, President APS-PD

8:15-8:30a.m. **Welcome Address:** Shane Burgess, Dean, College of Agriculture and Life Sciences, The University of Arizona

**8:30-9:00 a.m. Plenary Presentation 1: Aflatoxin Biocontrol: First Arizona, then the World.** Peter Cotty, USDA-ARS/School of Plant Sciences, The University of Arizona, Tucson, AZ

**Symposium I. Liberibacter species-Emergent Pathogens**

Moderators: Betsy Pierson, Texas A&M Univ and Ron Brlansky; University of Florida, Citrus Research and Education Center Lake Alfred, FL

9:00-9:20 **Potato zebra chip disease—the journey from ignorance to insight.** James Crosslin, USDA-ARS, Prosser, WA

9:20-9:40 **Introduction and current management of Citrus greening disease in Florida and the western U.S.** Ron Brlansky, Citrus Research and Education Center Lake Alfred, FL

9:40-10:00 **Overview of Zebra Chip of potato in the USA and impact on tuber quality.** C. M. Rush, F. Workneh, A. Rashed and L. Paetzold. Texas A&M AgriLife Research, Amarillo, TX

10:00-10:20 **Can we manage HLB Liberibacter in the Asian citrus psyllid?** Nabil Killiny, Citrus Research and Education Center Lake Alfred, FL

**10:20-10:40 Coffee & Tea Break** (Sonoran Terrace)

10:40-11:00 **Insect repellents, pesticide resistance, and breeding for resistance to potato psyllid to manage Zebra Chip disease.** Sean Prager and John Trumble, University of CA, Riverside, CA

11:00-11:20 **Is plant resistance to HLB-Liberibacter asiaticus in citrus obtainable?** Erik Mirkov, TAMU, Weslaco, TX

11:20-11:40 **Alternative compounds for management of Zebra Chip of potato.** Ronald French, Texas A&M AgriLife Extension Service, Amarillo, TX

11:40-12:00 **Advances in functional genomics of psyllid-Liberibacter interactions.**  
Tonja Fisher and Judith Brown, The University of Arizona, Tucson, AZ

**12:00-1:15 Hosted Lunch** (Catalina Ballroom)

**Symposium II. Grape and Tree Fruit and Nut Diseases**

Moderators: Ron French, Texas A&M, Amarillo, TX and Themis Michailides; UC-Kearney Agriculture Research and Extension Center, Parlier, CA

1:20-1:40 p.m. **The Texas experience of Pierce's Disease and Cotton Root Rot on wine grapes,** David N. Appel and Sheila McBride, Texas A&M Univ, College Station, TX

1:40-2:00 p.m. **Botryosphaeriaceae and almond trunk canker: A threat to the almond industry,** David Doll, Univ of California Cooperative Extension, Merced Co., Merced, CA

2:00-2:20 p.m. **Jefferson hazelnut meets Eastern filbert blight in Oregon,** Jay Pscheidt, Oregon State Univ, Corvallis, OR

2:20-2:40 p.m. **Intimacy of Botryosphaeriaceae and temperate nut crops in California,** Themis J, Michailides, Univ. of CA, Kearney Agric. Research & Extension Center, Parlier, CA

**2:40-3:00 p.m. Afternoon Break** (Sonoran Terrace)

3:00-3:20 p.m. **The Botryosphaeriaceae, a major player associated with tropical fruit diseases in Puerto Rico,** Luz M. Serrato-Diaz (1), Lydia I. Rivera-Vargas (2), Ricardo Goenaga (3), and Ronald D. French-Monar (1); (1)Texas A&M AgriLife Extension Service, Amarillo, TX; (2) University of Puerto Rico-Mayaguez, PR; and (3) USDA-ARS-TARS, Mayaguez, PR.

3:20-3:40 p.m. **Regulated pests and pathogens of nuts for export in the Western region.** Brad Lewis, NMDA and G. John Caravetta, Arizona Department of Agriculture

3:40-5:00 p.m. **Round Table Panel Discussion: New and Emerging Plant Health Issues in the Western Region** (Sonoran Ballroom)

Moderators: Glenn Wright, The University of Arizona, Yuma Agric. Center; Dave Appel, Texas A&M Univ., College Station, TX

Panel Members: John Caravetta (AZ Dept of Agriculture); Jerry Levitt (USDA-APHIS, Phx AZ); John Loghry (AZ Citrus Research Council); Bob Klein (Research Director CA Pistachio Research Board); Bob Curtis (Res. Director, Almond Board of CA; Carla Thomas, Western IPM Center; Peter Cotty (Research Scientist, USDA-ARS/UA)

5:15-6:30 **Business meeting (APS-PD and APS-CD)** (Sonoran Ballroom)

6:30-9:00 p.m. **POSTER VIEWING** (Coyote Room/Sonoran Ballroom)  
**Reception (\*Courtesy, our 2013 Sponsors) & Drink Tickets and Cash Bar** (Coyote Room/Sonoran Ballroom)

**TUESDAY June 18, 2013** [All Presentations: Sonoran Ballroom]

6:30-8:00 a.m. **Breakfast** (Sonoran Rooftop)

7:00-8:00 a.m. **Registration** (Sonoran Foyer)

8:10-8:20 a.m. **Announcements,** Judith Brown, President APS-CD

8:20-8:30 a.m. **Remarks by APS President,** Michael J. Boehm

**8:30-9:00 Plenary Presentation II: Diagnostics for newly emerging pathogens affecting ornamental nurseries and landscapes in the Caribbean: potential threats for the U.S,** Aaron Palmateer, Tropical Research & Education Center, IFAS, University of Florida

**Session 1. Graduate Student Competition (Oral presentations, 20 min)**

Moderators: Lawrence Datnoff, Louisiana State University, Baton Rouge, LA, and James Farrar, University of California-Davis, Davis, CA.

- 9:00-9:20 **Peduncular and seed infection in chile pepper by the plant pathogenic fungus *Verticillium dahlia*.** S. KUNDU (1), S. Sanogo (1), B. Schutte (1), P. H. Cooke (2); (1) Department of Entomology, Plant Pathology and Weed Sciences; (2) Core University Research Resources Laboratory, New Mexico State University, Las Cruces, NM
- 9:20-9:40 **Fungicide resistance of two *Alternaria* species to azoxystrobin and boscalid in the Columbia Basin.** L. TYMON (1), T. F. Cummings (1), D. A. Johnson (1). (1) Washington State University, Pullman, WA.
- 9:40-10:00 **Role of *Sclerotinia sclerotiorum* isolate aggressiveness, multiple inoculations and post-inoculation evaluation dates for selecting white mold resistant common bean.** D. VITERI (3), K. Otto (1), H. Terán (2), H. Schwartz (1), S. Singh (3). (1) Department of Bioagricultural Sciences and Pest Management, Colorado State University, Fort Collins, CO, U.S.A.; (2) DuPont Pioneer, Salinas, Puerto Rico; (3) Plant, Soil and Entomological Sciences Department, University of Idaho, Kimberly, ID.
- 10:00-10:20 **Effects of peanut seed treatments on plant stands and implications for disease management in Nicaragua**  
T. B. BRENNEMAN (2), D. Jerez (1); (1) Comasa, Chinandega, Nicaragua; (2) University of Georgia. [NON-Student presentation].
- 10:20-10:40 Coffee & Tea Break** (Sonoran Terrace)
- 10:40-11:00 **Host colonization affects community composition of aflatoxin-producing fungi in the Rio Grande Valley of Texas.** N. P. GARBER (1), H. L. Mehl (1), P. J. Cotty (2). (1) School of Plant Sciences, The University of Arizona, Tucson, AZ, U.S.A.; (2) USDA-ARS, School of Plant Sciences, The University of Arizona, Tucson, AZ.
- 11:00-11:20 **The role of carbon sources in relation to pathogenicity of *Sclerotinia sclerotiorum* on Valencia peanut.** P. LUJAN (2), B. Dungan (2), T. Schaub (2), J. Randall (2), N. Puppala (1), J. Idowu (2), S. Sanogo (2). (1) New Mexico State University, Clovis, NM; (2) New Mexico State University, Las Cruces, NM.
- 11:20-11:40 **Characterizing genetic mechanisms of non-aflatoxigenicity in isolates of *Aspergillus flavus* using the Cluster Amplification Pattern multiplex PCR method.** K. A. CALLICOTT (1), P. J. Cotty (1). (1) USDA-ARS/The University of Arizona-Plant Sciences, Tucson, AZ, U.S.A.
- 11:40-12:00 **Effect of application of *Ascophyllum* extract on the growth, disease incidence and yield of field tomatoes in Trinidad.** N. Ali (1), A. Ramsubhag (1), A. Farrell (1), J. JAYARAMAN (1). (1) Dept. of Life Sciences, The University of the West Indies, St. Augustine, Trinidad and Tobago.
- 12:00-1:15 pm Hosted Lunch** (Catalina Ballroom)  
**Graduate Student Competition Committee**, Luncheon privately
- Symposium III. Tropical Plant Diseases: Etiology, Spread and Management Challenges**  
Moderators: Consuelo Estevez de Jensen, and Jose Carlos V. Rodrigues, University of Puerto Rico, PR.
- 1:00-1:20 **Citrus leprosis disease-A new virus found in Colombia**, Ronald H. Bransky, Univ of Florida.
- 1:20-1:40 **Oomycetes in hydroponic systems**, Consuelo Estevez de Jensen, Univ of Puerto Rico.
- 1:40-2:00 **Orchid diseases**, Aaron J. Palmateer, IFAS, Univ of Florida.
- 2:00-2:40 ***Potyviridae* in cucurbits and wild hosts in Puerto Rico**, Jose C. Verle Rodrigues, Univ of Puerto Rico.
- 2:40-3:00 Afternoon Break** (Sonoran Terrace)
- 3:00-3:25 **Diversity and phylogeography of begomoviruses in the Caribbean region and Mexico**, Cecilia Hernández Zepeda, CICY, Cancun, Mexico.
- 3:25-3:50 **Arthropod-transmitted pathogens of palms in the Tropics**, Michel Dollet, CIRAD-BIOS, Montpellier, France.
- 3:50-4:15 **Laurel wilt: An unusual and exotic vascular wilt disease of avocado and other lauraceous host plants.** Randy C Ploetz, Univ of Florida.
- 4:15-6:00 **Poster Removal & FREE TIME**

6:00-9:00 **Banquet & Drink Tickets or Cash Bar; Awards Ceremony** (Catalina Ballroom)

**WEDNESDAY, June 19, 2013** [All Presentations: Sonoran Ballroom]

6:30-8:00 a.m. **Breakfast** (Sonoran Rooftop)

7:00-8:00 a.m. **Registration** (Sonoran Foyer)

8:30-8:40a.m. **Announcements:** Themis Michailides, President APS-Pacific Division

**Session 2. Mycology; General Disease Management (Oral presentations, 20 min)**

Moderators: Debra Ann Inglis, Washington State University-NWREC, Mount Vernon, WA, and Dennis Johnson, Washington State University, Pullman WA.

8:40-9:00 **Field performance in Arizona cotton crops of a biological control product made of *Aspergillus flavus* AF36 coated onto roasted milo**

R. JAIME (3), M. Foley (1), G. Barker (3), L. Liesner (1), L. Antilla (1), R. Bandyopadhyay (2)P. J. Cotty (3); (1) Arizona Cotton Research and Protection Council, Phoenix, AZ, U.S.A.; (2) International Institute of Tropical Agriculture, Ibadan, Nigeria; (3) USDA-ARS, University of Arizona-School of Plant Sciences, Tucson, AZ.

9:00-9:20 **The complexity of genotype mixtures influences intraspecific interactions among *Aspergillus flavus* during maize infection**

H. L. MEHL (2), P. J. Cotty (1); (1) USDA-ARS, University of Arizona, School of Plant Sciences, Tucson, AZ, U.S.A.; (2) University of Arizona, School of Plant Sciences, Tucson, AZ.

9:20-9:40 **Effect of the green algae *Chlorella* on vegetative growth and production of sporangia by *Phytophthora capsici***

S. SANOGO (1), M. Lytle (1); (1) New Mexico State University, Las Cruces, New Mexico.

9:40-10:00 **The effect of an open-ended high tunnel production system on late blight of tomato in western Washington**

M. Powell (1), B. Gundersen (1), C. A. Miles (1), J. S. Cowan (1), D. A. INGLIS (1) (1) WSU Mount Vernon NWREC.

10:00-10:20 **Monitoring program and training system to face the problem of the Soybean Cyst nematode in Puerto Rico**

R. VARGAS-AYALA (1), C. Estevez De Jensen (1), O. Farria-Medina (1), Y. Arenas-Buitrago; (1) University of Puerto Rico, Mayagüez, PR.

**10:20 -10:40 Coffee & Tea Break** (Sonoran Terrace)

**Session 3. Virology I (Oral presentations, 20 min)**

Moderators: James Crosslin, USDA-ARS, Prosser WA, and Alex Karasev, University of Idaho, Moscow, ID.

10:40-11:00 **A preliminary host-range study of two infectious full-length clones of *Beet severe curly top virus***

A. R. POPLAWSKY (1), S. G. Eid (1), A. V. Karasev (1); (1) University of Idaho, Moscow, ID.

11:00-11:20 **Doing more with less: Use of very young plants for biological indexing for graft transmissible pathogens of citrus**

R. F. LEE (1), M. L. Keremane (1), C. Ramadugu (2); (1) USDA ARS NCGRCD, Riverside, CA, U.S.A.; (2) University of California, Riverside, CA.

11:20-11:40 **Identification of viruses in small-farm lily and dahlia cut flower crops in western Washington**

G. A. CHASTAGNER (2), K. P. Coats (2), A. DeBauw (2), H. R. Pappu (1); (1) Washington State University, Pullman, WA, U.S.A.; (2) Washington State University, Puyallup, WA.

**11:40-12:00 Plenary Presentation III: Caribbean Pathways for Invasive Pathogens: Perspective and Actions from Puerto Rico**, Jose C. Verle Rodrigues, Univ of Puerto Rico, Rio Piedras, PR.

**12:00-1:15 Hosted Lunch** (Catalina Ballroom)

- Session 4. Virology II (Oral presentations, 20 min)**  
Moderators: Ali M. Idris, KAUST, Jeddah, Saudi Arabia, and C. Hernandez-Zepeda, CICY, Cancún, Quintana Roo, MEX.
- 1:20-1:40 **A recombinant of *Bean common mosaic virus* induces necrosis in an *I* gene bearing line of common bean**  
 X. Feng (1), A. R. Poplawsky (1), A. V. KARASEV (1); (1) University of Idaho, Moscow, ID.
- 1:40-2:00 **A suite of sub-viral DNA molecules associated with *Cotton leaf curl Gezira virus* from the southwestern Saudi Arabia**  
 A. IDRIS (1), M. Piatek (2), M. Al Saleh (3); (1) King Abdullah University of Science and Technology; (2) King Abdullah University of Science and Technology, Thuwal, Saudi Arabia; (3) King Saud University, Riyadh, Saudi Arabia.
- 2:00-2:20 **Tospoviruses a new threat to vegetable production in Puerto Rico**  
 C. ESTEVEZ DE JENSEN (4), L. Rivera-Vargas (4), J. V. Rodrigues (4), W. Mercado (1), G. Frantz (2), H. Mellinger (2), C. Webster (3), S. Adkins (3)  
 (1) Gargiulo Farms, Santa Isabel, PR; (2) Glades Crop Care Inc, Jupiter, FL; (3) USDA-ARS, Fort Pierce, FL; (4) University of Puerto Rico, Mayaguez, Puerto Rico.
- 2:20-3:00 Closing Remarks:** APS and Division Presidents. New Officer Introductions; Adjourn

### POSTER SESSION

COYOTE ROOM (Sonoran Ballroom): Sunday 3 PM until Tuesday 6 PM

- Morphological and molecular identification of *Colletotrichum* spp. causing postharvest anthracnose in papaya fruits cv Maradol in Colima, Mexico**  
 R. ALLENDE-MOLAR (1), I. Rojo-Baez (1), J. A. Carrillo-Fasio (1), R. S. Garcia-Estrada (1), J. Leon-Felix (1), I. Marquez-Zequera (1) ; (1) Centro de Investigacion en Alimentacion y Desarrollo AC.
- Characterization of the causal agent of aerial blight and wilt in *Vinca rosea* plants from Sinaloa, Mexico**  
 B. ALVAREZ-RODRIGUEZ (1), J. A. Carrillo-Fasio (1), R. S. Garcia-Estrada (1), J. Leon-Felix (1), R. Allende-Molar (1); (1) Centro de Investigacion en Alimentacion y Desarrollo AC.
- Monitoring and management of fungicide resistance in populations of *Alternaria* spp. from California pistachio orchards**  
 H. F. Avenot (1), M. Luna (1), D. P. Morgan (1), T. J. MICHAILIDES (1);(1) University of California-Davis, Kearney Agricultural Center, Parlier, CA.
- Neofusicoccum parvum causing black spots on avocado fruit in Michoacán, Mexico**  
 G. D. AVILA-QUEZADA (1), H. V. Silva-Rojas (2), H. K. Saenz-Hidalgo (1) ; (1) Centro de Investigacion en Alimentacion y Desarrollo A.C. Av. 4 sur no. 3829, Cd. Delicias, Chihuahua, MEXICO 33089; (2) Colegio de Postgraduados campus Montecillos, Km 36.5 carr. Mexico-Texcoco. Edo. de Mexico. Mexico.
- HYT A and HYT B effect on fungal pathogen growth in broccoli and lettuce – A biological fertilizer program**  
 K. COONS (3), A. Formella (3), E. Flora (4), M. Abildgaard (2), J. Allan (1);(1) Agrimar; (2) Agrinos; (3) Pacific Ag Research, and (4) pacificagresearch.com.
- Supporting integrated pest management in the Western United States**  
 J. J. FARRAR (1), C. Thomas (1); (1) Western IPM Center, UC-Davis, Davis, CA.
- Corky bark disease of langsat in Hawaii**  
 L. M. KEITH (1), T. K. Matsumoto (1), G. T. McQuate (1); (1) PBARC, USDA-ARS, Hilo, Hawaii.
- Survival of *Ralstonia solanacearum* bacteriophage  $\phi$ RS6 in agricultural soil**  
 F. S. LOPEZ-SOTO (1), I. Marquez-Zequera (1), R. Allende-Molar (1), J. Leon-Felix (1), J. B. Valdez-Torres (1), J. B. Heredia (1), R. S. Garcia-Estrada (1); (1) Centro de Investigacion en Alimentacion y Desarrollo AC
- Advances in the detection of ‘*Candidatus Liberibacter solanacearum*,’ the causative agent of potato zebra chip disease.**  
 J. LEVY (1), A. Ravindran (2), D. Gross (2), C. Tamborindegy (3), Elizabeth Pierson (1); (1)Department of Horticultural Sciences, (2)Department of Plant Pathology and (3)Department of Entomology; Texas A&M University, College Station, TX
- Pathogenicity of *Pythium aphanidermatum* on papaya seedlings cultivar Maradol, and hybrids Sensation and Tainung**

I. MARQUEZ-ZEQUERA (1), R. S. Garcia-Estrada (1), R. Allende-Molar (1) ; (1) Centro de Investigacion en Alimentacion y Desarrollo AC

**Reducing fungicide applications to control *Alternaria* late blight of California pistachios by spraying after early season 10-unit DSV thresholds**

D. P. MORGAN (1), R. D. Puckett (1), T. J. Michailides (1);(1) Department of Plant Pathology, University of California-Davis, Kearney Agricultural Center, Parlier, CA

**Identification of fungal species responsible of stem-end rot in papaya cv Maradol in Colima, Mexico**

I. ROJO-BAEZ (1), J. A. Carrillo-Fasio (1), R. S. Garcia-Estrada (1), J. Leon-Felix (1), R. Allende-Molar (1) ; (1) Centro de Investigacion en Alimentacion y Desarrollo AC.

**Evaluation of selected biorational products for efficacy against fungal pathogens of Valencia peanut**

S. SANOGO (1), P. Lujan (1), N. Puppala (1), J. Idowu (1), K. Grover (1); (1) New Mexico State University, NM.

**Environmental factors influencing disease suppression by compost water extracts (CWE) under controlled conditions**

S. J. Tollefson (1), G. CURLANGO-RIVERA (2), T. Pew (3), G. Giacomelli (1), M. C. Hawes (2)  
(1) Department of Agricultural and Biosystems Engineering and CEAC, University of Arizona, Tucson, AZ; (2) Department of Soil, Water, and Environmental Science, University of Arizona, Tucson, AZ; (3) Merlin Organics, Tucson, AZ (\*graduate student competing paper)

**Evaluation of relative susceptibility of lettuce varieties to *Tomato spotted wilt virus* and *Fusarium wilt***

T.A. TURINI (2), J. D. McCreight (1);(1) USDA ARS, Salinas, CA, USA; (2) University of California, Fresno, CA.

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**and the following Corporate Sponsors:**

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