

# 94<sup>th</sup> Cumberland – Shenandoah Fruit Workers Conference

November 29 -30, 2018

Holiday Inn Winchester SE-Historic Gateway  
Winchester, Virginia

## CONFERENCE AGENDA

### Thursday, November 29

8:00 – 9:00	Registration
9:00 – 9:10	Call to Order
9:10 – 10:10	Call of the States
10:10 – 10:30	Call of the Industry
10:30 – 10:45	BREAK
10:45 – 12:00	Plenary Session

#### **U.S. Apple Industry 2018-19 - Overview and Outlook.**

*Mark W. Seetin, Director, Regulatory and Industry Affairs, U.S. Apple Association, Falls Church, VA.*

#### **Impacts of Federal Policies and Regulatory (and Court) Actions on Agriculture - What's Happening & Why You Should Be Paying Attention.**

*David L Epstein, Entomologist, USDA-ARS Office of Pest Management Policy, Washington, DC.*

12:15 – 1:00	LUNCH
1:15 – 5:15	Concurrent Sessions Entomology Horticulture Plant Pathology
5:30	MIXER

### Friday, November 30:

8:00 – 8:45	CSFWC Business Meeting (all are invited)
9:00 – 12:15	Concurrent Sessions continue

Concurrent Sessions Agenda  
ENTOMOLOGY

Thursday, November 29:

- 1:15 - 1:30 **2018 orchard survey for invasive and exotic pests in New York.**  
*Juliet Carroll (NYS IPM Program, Cornell Univ.) and Art Agnello (Entomology, Cornell Univ.).*
- 1:30 - 1:45 **Preliminary Trapping Study and Host Range Results for Spotted Lanternfly (*Lycorma delicatula*).**  
*Danielle Kirkpatrick (USDA-ARS), Heather Leach, Julie Urban (Penn State Univ.), Rodney Cooper (USDA-ARS), Rafael Valentin, Anne Nielsen, Julie Lockwood, Dina Fonseca, (Rutgers Univ.), and Tracy Leskey (USDA-ARS).*
- 1:45 - 2:00 **Filling in the Knowledge Gaps: Update on Studies of Spotted Lanternfly Feeding and Reproductive Biology.**  
*Julie Urban (Penn State University).*
- 2:00 - 2:15 **Spotted Lanternfly Damage and Phenology in PA Vineyards.**  
*Heather Leach, Michela Centinari, David Biddinger, and Julie Urban (Penn State University).*
- 2:15 - 2:30 **Residual Control of Spotted Lanternfly Nymphs and Adults with Various Insecticides,**  
*David Biddinger (Penn State Univ. Fruit Res. & Ext. Ctr., Entomology), Heather Leach, and Julie Urban (Penn State Univ., Entomology).*
- 2:30 - 2:45 **BMSB and SLF - field trials during the 2018 season.**  
*Greg Krawczyk, Hillary Peterson, Claire Hirt, and Henry Rice (Penn State Univ. Fruit Res. & Ext. Ctr.)*
- 2:45 - 3:00 **Response of adult *Halyomorpha halys* to insecticide-treated netting during its autumn dispersal phase: Results from 2018.**  
*Chris Bergh, Nicole Quinn, Whitney Hadden, and Jean Engelman (Virginia Tech AHSAREC).*
- 3:00 - 3:15 **BREAK**
- 3:15 - 3:30 **Prevalence of *Nosema maddoxi* in brown marmorated stink bug (*Halyomorpha halys*) populations in Eastern and Western states in the US.**  
*Carrie Preston (Cornell University).*
- 3:30 - 3:45 **Big picture, small scale: Why does BMSB population density exhibit site-specific differences?**  
*Whitney T. Hadden (Virginia Tech AHSAREC), Tracy C. Leskey (USDA-ARS, Kearneysville, WV), and J. Christopher Bergh (Virginia Tech AHSAREC, Winchester, VA).*
- 3:45 - 4:00 **Trapping *Trissolcus japonicus* in Virginia: Habitat and host plant effects.**  
*Nicole Quinn (Virginia Tech AHSAREC, Winchester, VA), Elijah Talamas (Div. of Plant Industry, FL Dept. of Agric. & Consumer Services, Gainesville, FL), Tracy Leskey (USDA-ARS Appalachian Fruit Res Station, Kearneysville, WV), and Chris Bergh (Virginia Tech AHSAREC, Winchester, VA).*
- 4:00 - 4:15 **Behavioral responses of *Halyomorpha halys* and its egg parasitoid, *Trissolcus japonicus* to host based plant volatiles.**  
*Clement Akotsen-Mensah and Anne Nielsen (Rutgers University).*
- 4:15 - 4:30 **Parasitoid impact on brown marmorated stink bug under differing management programs: a comparison of egg fates in corn and apple agroecosystems in North Carolina.**  
*Emily Oqburn and Jim Walgenbach (MHCR&EC, North Carolina State University).*
- 4:30 - 4:45 **Impact of border row applications of insecticides on *Trissolcus japonicus*: an early look at alternative management strategies for integrated pest management.**  
*Dalton Ludwick (USDA-ARS/Virginia Tech) and Tracy Leskey (USDA-ARS).*

Concurrent Sessions Agenda  
ENTOMOLOGY

Thursday, November 29 (continued):

- 4:45 – 5:00 **Foraging Ecology and Predictions of *Trissolcus japonicus* in Fruit Systems.**  
*Anne L. Nielsen, Anna DiPaola, Clement Akotsen-Mensah, Nicolas Avila (Rutgers University) and Kevin Rice (University of Missouri).*
- 5:00 – 5:15 **Comparing parasitism of brown marmorated stink bug (*Halyomorpha halys* Stål) sentinel egg masses in Pennsylvania fruit orchard landscapes.**  
*Hillary Peterson (Penn State Univ, University Park, PA), Claire Hirt, and Greg Krawczyk (Penn State University, Biglerville, PA).*

Friday, November 30:

- 9:00 - 9:15 **Can you guess what caused this damage?**  
*Jim Walgenbach (NC State University) and Bill Mackintosh (Mackintosh Fruit Farm).*
- 9:15 - 9:30 **Protecting Apple Trees from Black Stem Borer, *Xylosandrus germanus*, Using Trunk Injection.**  
*John Wise and Celeste Wheeler (Michigan State University).*
- 9:30 - 9:45 **Effects of methyl salicylate as a repellent to *Xylosandrus germanus* ambrosia beetle infestations in apple trees.**  
*Arthur Agnello, David Combs (Cornell University) and Kenneth Lamm (Bowdoin College).*
- 9:45 - 10:00 **Optimizing the sterile insect technique for management of codling moth.**  
*Larry Gut, Chris Adams, and Rob Curtis (Michigan State University).*
- 10:00 - 10:15 **Colony collapse issues with NJ blueberry pollination.**  
*Dean Polk, Chelsea Abegg, Cesar Rodriguez-Saona (Rutgers Coop. Ext.), Tim Schuler (NJ Dept. Agric.)*
- 10:15 – 10:30 **BREAK**
- 10:30 – 10:45 **Tracking *In-Situ* Distribution of Plum Curculio *Conotrachelus nenuphar* in Peach and Blueberry Orchards.**  
*Timothy Lampasona and Anne Nielsen, Rutgers University.*
- 10:45 – 11:00 **Double edge sword: Cultivated blueberries are more susceptible, but less attractive, to spotted wing drosophila than wild blueberries.**  
*Cesar Rodriguez-Saona (Rutgers University) and Kevin Cloonan (Acadia University).*
- 11:00 – 11:15 **Replacing conventional insecticides with non-nutritive sugars in attracticidal spheres: preliminary studies with spotted wing drosophila and apple maggot fly.**  
*Laura Nixon and Tracy Leskey (USDA-ARS Appalachian Fruit Research Station).*
- 11:15 - 11:30 **Hummingbird enrichment in berries to encourage predation of spotted wing *Drosophila*.**  
*Juliet Carroll (NYS IPM Program, Cornell Univ), Greg Loeb (Entomology, Cornell Univ), Courtney Weber (Horticulture, Cornell Univ), and Laura McDermott (Eastern NY Commercial Hort. Program, Cornell University).*
- 11:30 - 11:45 **Can female vibrational playback increase BMSB trap capture?**  
*Aya Ibrahim (Univ. of Udine), Gianfranco Anfora (Fondazione Edmund Mach, San Michele all' Adige), Lara Maistrello (Univ. of Modena & Reggio Emilia), and Valerio Mazzoni (Fondazione Edmund Mach, San Michele all' Adige, Italy).*
- 11:45 – 12:00 **Agroecosystem Effects on BMSB Pheromone Trap Capture and Damage in NC Apple Orchards.**  
*Steve Schoof and Jim Walgenbach (NC State Univ).*
- 12:00 - 12:15 **Optimization of BMSB pheromone doses, ratios, substrates, and traps for monitoring and attract-and-kill.**  
*Brent Short and Tracy Leskey (USDA-ARS Appalachian Fruit Research Station).*

*Concurrent Sessions Agenda*  
**HORTICULTURE**

**Thursday, November 29:**

- 1:15 - 1:30     **Postharvest and Post-Cold Storage Properties of Five New Peach Varieties - Brigantine, Evelynn, Selena, Silverglo and Tiana.**  
*Hemant Gohil (Rutgers Cooperative Extension, Gloucester County) & Daniel Ward (Rutgers Agricultural Research and Extension Center).*
- 1:30 - 1:45     **Apple Rootstock Trial Results.**  
*Rob Crassweller and Don Smith (Penn State University).*
- 1:45 – 2:00     **Improving 'Fugachee Fuji' fruit quality with reflective fabrics.**  
*Chris Clavet and Tom Kon (North Carolina State University).*
- 2:00 – 2:15     **What is the Effect of Preconditioning on Premier Honeycrisp and Honeycrisp Apples Grown in Southern Pennsylvania?**  
*Chris Walsh, Audra Bissett, Kathy Hunt (Univ of Maryland) and Tara Baugher (Penn State Extension).*
- 2:15 – 2:30     **Effect of This Year's Hot, Wet Harvest Season on Apple Fruit Maturity.**  
*Chris Walsh, Audra Bissett, Kathy Hunt (Univ of Maryland), Tara Baugher and Norma Young (Penn State Extension).*
- 2:30 - 2:45     **Prohexadione-calcium, Honeycrisp, and Bitter Pit: Selected Results from Three Seasons of Field Research in Eastern New York.**  
*Daniel Donahue (Cornell Cooperative Extension - ENYCHP).*
- 2:45 - 3:00     **Thinning without carbaryl: Evaluation of multi-step thinning programs in NC and PA.**  
*Tom Kon (North Carolina State University) and Jim Schupp (Penn State University).*
- 3:00 – 3:15     **BREAK**
- 3:15 - 3:30     **Evaluating chemicals for apple blossom thinning.**  
*Sherif Sherif, Chester Allen, and Keith Yoder (Virginia Tech AHSAREC, Winchester, VA).*
- 3:30 - 3:45     **Effect of Single or Split Applications of Prohexadione, With and Without Gibberellin 4+7 on Scarf Skin of Buckeye Gala.**  
*Jim Schupp, H. Edwin Winzeler, and Melanie Schupp (Penn State Fruit Research and Extension Center).*

Concurrent Sessions Agenda  
**PLANT PATHOLOGY**

**Thursday, November 29:**

- 1:15 - 1:30 **Characterizing strains of *Erwinia amylovora* across orchards in New York State in 2017 & 2018 using CRISPR elements.**  
*Anna Wallis, Matthew Siemon, Mei-Wah Choi, and Kerik Cox (Plant Pathology and Plant-Microbe Biology Section, School of Integrative Plant Science, Cornell University, Geneva, NY).*
- 1:30 - 1:45 **The use of prohexadione calcium and a systemic acquired resistance inducer to manage fire blight without antibiotics.**  
*Anna Wallis (Plant Pathology & Plant-Microbe Biology Section, School of Integrative Plant Science, Cornell Univ, Geneva, NY), Daniel Kaplan (Dept. of Biology, St. John Fisher College, Rochester, NY), Mei-Wah Choi, and Kerik Cox (Plant Pathology & Plant-Microbe Biology Section, School of Integrative Plant Science, Cornell University, Geneva, NY).*
- 1:45 – 2:00 **Effect of flower age and antibiotic treatment on the population dynamics of *Erwinia amylovora* on apple flower stigmas.**  
*Suzanne Slack, Jeffery Schachterle, Cory Outwater, and George W. Sundin (Michigan State Univ.).*
- 2:00 – 2:15 **Field evaluation of host plant defense inducers for fire blight management and pathogenesis-related protein gene expression in *Malus x domestica*.**  
*Rachel Kreis and Sara Villani (North Carolina State University).*
- 2:15 – 2:30 **Post-Infection Prevention of Fire Blight Cankers with Apogee and Apple Scab Management with Revysol.**  
*Srđan G. Aćimović, Christopher L. Meredith, and Ricardo D. Santander (Cornell University, Plant Pathology and Plant-Microbe Biology Section, Hudson Valley Research Laboratory, Highland, NY).*
- 2:30 – 2:45 **Characterization of *Colletotrichum* species in KY Orchards and Potential Risks for Cross Infection.**  
*Nicole Gauthier, Madison McCulloch, and Lisa Vallaincourt (University of Kentucky, Dept. of Plant Pathology).*
- 2:45 – 3:00 **Rotten to the Core: Characterization and fungicide sensitivity of *Colletotrichum* species causing Glomerella leaf spot and fruit rot in NC.**  
*Kendall Johnson (North Carolina State University), Wayne Jurick (USDA-ARS), Rachel Kreis and Sara Villani (North Carolina State University).*
- 3:00 – 3:15 **BREAK**
- 3:15 – 3:30 **Bitter rot of apple: What we learned in 2018.**  
*Phillip Martin, Teresa Krawczyk, Brian Lehman, and Kari Peter (Penn State University).*
- 3:30 – 3:45 **Apple Bagging for Disease and Insect Management: A Low-Input Option for Backyard and Organic Growers.**  
*Nicole Gauthier (University of Kentucky, Dept. of Plant Pathology).*
- 3:45 – 4:00 **Highlights of 2018 fungicide testing on apples.**  
*Keith Yoder, Allen Cochran II, William Royston, Jr., Scott Kilmer, and Abby Kowalski (Virginia Tech AREC).*
- 4:00 – 4:15 **Selection for SDHI fungicide resistance: influence of application rate.**  
*Katrin Ayrer, Mei-Wah Choi, and Kerik Cox (Plant Pathology and Plant-Microbe Biology Section, School of Integrative Plant Science, Cornell University, Geneva, NY).*

Concurrent Sessions Agenda  
**PLANT PATHOLOGY**

**Thursday, November 29 (continued):**

- 4:15 - 4:30     **Timing Fungicide Applications for Improved Control of Apple Powdery Mildew (*Podosphaera leucotricha*).**  
*David Strickland and Kerik Cox (Plant Pathology and Plant-Microbe Biology Section, School of Integrative Plant Science, Cornell University, Geneva, NY).*
- 4:30 – 4:45     **Using Post Dormant Copper Applications for Fungal Disease Control.**  
*Brian Lehman and Kari Peter (Penn State University).*
- 4:45 – 5:00     **2018 Pennsylvania Update: RAD, new diseases, promising products.**  
*Kari Peter (Penn State University)*

**Friday, November 30:**

- 9:00 – 9:15     **Refinement of Peach Cover Spray Programs for Sustainable Management of Brown Rot.**  
*Norman Lalancette and Lorna Blaus (Rutgers University).*
- 9:15 – 9:30     **Efficacy of Experimental Fungicides and Biorational Bactericides for Management of Peach Brown Rot and Bacterial Spot.**  
*Norman Lalancette and Lorna Blaus (Rutgers University).*
- 9:30 – 9:45     **Evaluation of fungicidal products for the control of ripe rot in Maryland vineyards, 2018.**  
*Scott Cosseboom and Mengjun Hu (University of Maryland).*
- 9:45 – 10:00    **Field trial updates 2018: *Botrytis* gray mold on grapes and bagging trials.**  
*Mizuho Nita (Virginia Tech University).*
- 10:00 – 10:15   **Effect of high relative humidity on germination of five *Colletotrichum* species isolated from grapes in Virginia.**  
*Mizuho Nita and Akiko Mangan (Virginia Tech University).*