# 95th Cumberland – Shenandoah Fruit Workers Conference

*December 5th-6th, 2019*

Holiday Inn Winchester SE-Historic Gateway
Winchester, Virginia

**CONFERENCE AGENDA**

**Thursday, December 5:**

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| 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 |

**Update on the Status of Spotted lanternfly in the Mid-Atlantic Area.**
*Heather Leach, Department of Entomology, Pennsylvania State University.*

**Before You See the Spots: Using eDNA as a Biosurveillance Tool for Spotted Lanternfly in NJ Vineyards.**
*Anne Nielsen, Department of Entomology, Rutgers University.*

**Automation and technological innovations used in apple packing**.
*Danijel Lolic, Engineer, Rice Fruit Company, Gardners, PA.*

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

**Friday, December 6:**

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

*Concurrent Sessions Agenda*

**ENTOMOLOGY**

**Thursday, December 5:**

1:30 - 1:45 **Redistributing *Trissolcus japonicus* in Virginia: 2019 Update.**
*Chris Bergh (Alson H. Smith Jr. Ag. Res. and Ext. Ctr., Virginia Tech, Winchester, VA), Ashley Edwards, Kathleen Reed, Alyssa Elliott, Kate Lawrence (Virginia Cooperative Ext.), and Elijah Talamas (Division of Plant Industry, Florida Dept. of Ag. and Consumer Serv.).*

1:45 – 2:00 **Habitat, Temporal, and Host Plant Effects on *Trissolcus japonicus* (Ashmead) (Hymenoptera: Scelionidae) Detections in Virginia.**
*Nicole Quinn (Alson H. Smith Jr. Ag. Res. and Ext. Ctr., Virginia Tech, Winchester, VA), Elijah Talamas (Division of Plant Industry, Florida Dept. of Ag. and Consumer Serv.), Tracy Lesksey (USDA-ARS, Appalachian Fruit Res. Station, Kearneysville, WV), and Chris Bergh (Alson H. Smith Jr. Ag. Res. and Ext. Ctr., Virginia Tech, Winchester, VA).*

2:00 - 2:15 **Life on the Edge? Woods-to-orchard Pheromone Trap Transects for *Halyomorpha Halys.***
*Whitney Hadden (Alson H. Smith Jr. Ag. Res. and Ext. Ctr., Virginia Tech, Winchester, VA), Tracy Leskey (USDA-ARS, Appalachian Fruit Res. Station, Kearneysville, WV), and Chris Bergh (Alson H. Smith Jr. Ag. Res. and Ext. Ctr., Virginia Tech, Winchester, VA).*

2:15 - 2:30 **Are Detections of *Halyomorpha halys* Egg Masses and *Trissolcus japonicus* Increased in Pheromone-Baited Trees?**
*Jared Dyer (Alson H. Smith Jr. Ag. Res. and Ext. Ctr., Virginia Tech, Winchester, VA), Elijah Talamas (Division of Plant Industry, Florida Dept. of Ag. and Consumer Serv.), Tracy Lesksey (USDA-ARS, Appalachian Fruit Res. Station, Kearneysville, WV), and Chris Bergh (Alson H. Smith Jr. Ag. Res. and Ext. Ctr., Virginia Tech, Winchester, VA).*

2:30 - 2:45 **Residual Activity of Bifenthrin and Dinotefuran for Control of BMSB on Apples.**
*Jim Walgenbach, Steven Schoof, and Amelia Heintz-Botz (NC State Univ.).*

2:45 - 3:00 **Ambrosia Beetle Ecology and Management in NC Apple Systems.**
*Sean Gresham, Seth Ellis, Netty Calvin, Amelia Heintz-Botz, Sara Villani, and Jim Walgenbach (NC State Univ.).*

3:00 – 3:15 **BREAK**

3:15 - 3:30 **Efficacy of Plant Host Defense Compounds in Preventing Ambrosia Beetle Infestations in Apple Trees.**
*Arthur Agnello and Dave Combs (Cornell Univ.).*

3:30 - 3:45 **Oriental Beetle-Still A Hidden Issue.**
*Carrie Denson and Dean Polk (Rutgers Univ.).*

3:45 - 4:00 **Challenges with Spotted Lanternfly Research: Monitoring and Ovicidal Bioassays.**
*Greg Krawczyk, Edwin Winzeler, and Henry Rice. (Penn State Univ. Fruit Res. and Ext. Ctr.).*

4:00 - 4:15 **Effects of Standard Versus Reduced-Width Sticky Bands on Captures of Spotted Lanternfly Nymphs and Non-Target Organisms.**
*Brian Ruether, Jaren Dyer, Whitney Hadden, Nicole Quinn, and Chris Bergh (Alson H. Smith Jr. Ag. Res. and Ext. Ctr., Virginia Tech, Winchester, VA).*

4:15 - 4:30 **Development of Behaviorally Based Monitoring and Biosurveillance Tools for the Invasive Spotted Lanternfly, *Lycorma delicatula*.**
*Laura Nixon (USDA-ARS, Appalachian Fruit Res. Station), Heather Leach (Penn State Univ.), Dalton Ludwick (USDA-ARS, Appalachian Fruit Res. Station), Julie Urban (Penn State Univ.), Danielle Kirkpatrick (Trece Inc.), and Tracy Leskey (USDA-ARS, Appalachian Fruit Res. Station).*

4:30 – 4:45 **Spotted Lanternfly Host Breadth and Rearing: Quarantine and Field studies.**
*Tracy Leskey, Sharon Jones, Dalton Ludwick, Laura Nixon (USDA-ARS), and Karen Felton (USDA Forest Serv.).*

4:45 – 5:00 **Spotted Lanternfly Control Trials on Grape & Peach with Conventional and Bioinsecticides.**
*David Biddinger (Penn State Univ. Fruit Res. & Ext. Ctr.), Heather Leach, Nina Jenkins, and Julie Urban (Penn State Univ.).*

5:00 – 5:15 **Field Observations on Spotted Lantern Fly Behavior and Host Suitability.**
*Jason Bielski and James Steffel (LABServices).*

*Concurrent Sessions Agenda*
**ENTOMOLOGY**

## Friday, December 6:

9:00 - 9:15 **European Cherry Fruit Fly Quarantine in New York.**
*Juliet Carroll (Cornell Univ.)*

9:15 - 9:30 **Trapping for Brown Marmorated Stink Bug in Appalachian Forests.**
*Steve Schoof and Jim Walgenbach (NC State Univ.).*

9:30 - 9:45 **Is Codling Moth Becoming Less Susceptible to *Cydia pomonella* granulovirus in Apple Orchards?**
*Jiangbin Fan, Katarzyna Madalinska, and Anne Nielsen (Rutgers Univ.).*

9:45 - 10:00 **Update on Pesticide Impacts on Honey Bees Used for NJ Highbush Blueberry Pollination.**
*Dean Polk, Chelsea Abegg, Cesar Rodriguez-Saona, and Gail Lokaj (Rutgers Univ.).*

10:00 - 10:15 **Leveraging Pest Behavior for Implementation of Biological Control for Plum Curculio - Findings From Year 1.**
*Robert McDougall (Rutgers Univ.), Clement Akotsen-Mensah (Lincoln Univ.), Tracy Leskey (USDA-ARS), Cesar Rodriguez-Saona (Rutgers Univ.), Brett Blaauw (Univ. of Georgia), and Anne Nielsen (Rutgers Univ.).*

10:15 – 10:30 ***D. suzukii* Management - Using a Crop Sanitizer to Control Yeasts.**
*Torsten Schoneberg and Kelly Hamby (Univ. of Maryland).*

10:30 - 10:45 **Integrating *Trissolcus japonicus* into Apple IPM Programs.**
*Dalton Ludwick, Jessica Patterson (USDA-ARS), Layne Leake (Univ. of Missouri-Columbia), Lee Carper, and Tracy Leskey (USDA-ARS).*

*Concurrent Sessions Agenda*
**HORTICULTURE**

**Thursday, December 5:**

1:15 - 1:30 **Breaking Buds with Bags: Minimizing Blind Wood on Apple.**
*Thomas Kon, Chris Clavet (NC State Univ.), and Byron Phillips (Valent USA).*

1:30 - 1:45 **Chemical Blossom Thinning in Apples: Applied Research Findings.**
*W. Chester Allen, Sherif Sherif (Virginia Tech), Thomas Kon (NC State Univ.), Keith Yoder, Mariah Temkin, and Sara Pitcock (Virginia Tech).*

1:45 - 2:00 **Evaluation of 1-Aminocyclopropane-1-carboxylic Acid (ACC) as a Potential Post-bloom Thinner of Apples.**
*Sherif Sherif (Virginia Tech).*

2:00 - 2:15 **'Honeycrisp' Bitter Pit Prediction in New York State.**
*Daniel Donahue (Cornell Coop. Ext.)*

2:15 - 2:30 **Trees Per Hectare or Leaders Per Hectare: Which is More Important?**
*Rob Crassweller and Don Smith (Penn State Univ.).*

2:30 - 3:00 **Russet and Fruit Cracking of Imperial 10-45 and GoldRush Apples: Effects of Canopy Position and GA4+7 Sprays.**
*James Schupp, Melanie Schupp, and Edwin Winzeler (Penn State Fruit Res. and Ext. Ctr.).*

3:00 – 3:15 **BREAK**

3:15 - 3:30 **Effects of Rootstock and In-row Tree Spacing on Mineral Nutrition and Productivity of Peach Trees in Pennsylvania.**
*James Schupp, Melanie Schupp, and Edwin Winzeler (Penn State Fruit Res. and Ext. Ctr.).*

3:30 - 3:45 **Managing Blackberry Growth with Prohexadione Calcium.**
*Chris Clavet, Thomas Kon, Gina Fernandez, Penelope Perkins-Veazie (NC State Univ.), Karen Blaedow (NC Coop. Ext. Serv.).*

3:45 - 4:00 **Comparing the Mineral Nutrition and Vigor of Northern and Southern Highbush Blueberries.**
*Chris Walsh, Carol Allen, Audra Bissett, Claire Frank, Lukas Hallman, Amelia Loeb, and Sebastian Peters (Univ. of Maryland).*

4:00 - 4:15 **Sugar Metabolism Reprogramming in Japanese Plums.**
*Macarena Farcuh (Dept. of Plant Science and Landscape Architecture, Univ. of Maryland), Bosheng Li (Dept. of Plant Sciences, Univ. of California), Rosa Rivero (CEBAS, CSIC, Murcua, Spain), Avi Sadka (Dept. of Fruit Tree Sciences, ARO, The Volcani Center, Israel), and Eduardo Blumwald (Dept. of Plant Sciences, Univ. of California).*

4:15 - 4:30 **Building a Food Safety Culture for Direct Market Growers.**
*Carol Allen, Audara Bissett, Angela Ferelli, Kathy Hunr, and Chris Walsh (Univ. of Maryland).*

*Concurrent Sessions Agenda*

**PLANT PATHOLOGY**

**Thursday, December 5:**

1:15 - 1:30 **Identification and Resistance Profiling of Colletotrichum spp. Isolates from Strawberries in the Mid-Atlantic.**
*Qiuchen Luo (Univ. of Maryland).*

1:30 - 1:45 **Investigating Sources for Postharvest Apple Rot Fungi in the Field and Packhouse: Conceptual Framework and Preliminary Results.**
*Johanny Castro, Kari Peter (Penn State Univ.).*

1:45- 2:00 **Optimizing the Potential for Biological Controls to Manage Fungal Diseases of Apple.**
*Katrin Ayer and Kerik Cox (Cornell AgriTech).*

2:00 - 2:15 **Alternatives to QoI Fungicides for Glomerella Leaf Spot Management in NC.**
*Sara Villani, Alejandro Llanos, and Rachel Kreis (NC State Univ.).*

2:15 - 2:30 **Assessment of Alternative Chemical Management Programs for Apple Powdery Mildew Caused by *Podosphaera leucotricha*.**
*David Strickland and Kerik Cox (Cornell AgriTech).*

2:30 - 2:45 **Developing Tools to Detect and Manage Antimicrobial Resistance in Blue Mold Fungi Causing Postharvest Decay.**
*Wayne Jurick II and Kerik Cox (Cornell Univ.).*

2:45- 3:00 **Influence of pH on the Efficacy of Captan for Summer Disease Control in Apple.**
*W. Chester Allen, Keith Yoder, Allen Cochran, William Royston, Scott Kilmer, and Sherif Sherif (Virginia Tech).*

3:00 - 3:15 ***Paecilomyces* Rot in Apples: A Newly Described Disease and a Possible Source of Food Spoilage and Patulin Contamination.**
*Tristan Wang and Kathie T. Hodge (Cornell Univ.).*

3:15 - 3:30 **BREAK**

3:30 - 3:45 **Update on In-Orchard Population Dynamics of *Erwinia amylovora*: Night Time Growth and Implications for Antibiotic Application Timing.**
*Suzanne Slack, Kellie Walters, Emily Pochubay, Cory Outwater, and George Sundin (Michigan State Univ.).*

3:45 - 4:00 **Managing Fire Blight with Prohexadione-calcium Applied Pre-bloom.**
*Anna Wallis and Kerik Cox (Cornell AgriTech).*

4:00 - 4:15 **Post-infection Applications of Prohexadione-calcium Prevent Initiation of Fire Blight Cankers on Perennial Apple Wood.**
*Srdjan Acimovic, Christopher Meredith, Ricardo Santander, and Fatemeh Khodadadi (Cornell Univ.).*

4:15 - 4:30 **Development of Viability Digital PCR to Elucidate *Erwinia amylovora* Biology and Management.**
*Srdjan Acimovic, Ricardo Santander, and Christopher Meredith (Cornell Univ.).*

4:30 - 4:45 **Quantifying Impact of Dormant Copper Sprays on Overwintering Cells of *Erwinia amylovora* in Cankers on Apple Wood.**
*Srdjan Acimovic, Ricardo Santander, and Christopher Meredith (Cornell Univ.).*

4:45 - 5:00 **The Intensity of Phytotoxicity on Grape Leaves by a Mixture of Copper and Phosphorus Acid Depends on the Copper Formulation and Water pH.**
*Mizuho Nita, Abdullah Nahiyan (Virginia Tech), and Jungkwan Lee (Dong-A Univ.).*

5:00 - 5:15 **Pathogenicity Behavior of *Aspergillus*, *Alternaria*, and *Pestalotiopsis* on Grape Bunches.**
*Scott Cosseboom and Mengjun Hu (Univ. of Maryland).*

*Concurrent Sessions Agenda*
**PLANT PATHOLOGY**

**Friday, December 6:**

9:00 - 9:15 **The Detection Rate of *Botryosphaeria* spp. is Significantly Lower in Certified Grafted Grapevine Materials.**
*Mikako Gomyo, Gregory Klinger, and Mizuho Nita (Virginia Tech).*

9:15 - 9:30 **Biocontrol Agent *Rhizobium vitis* ARK-1 Reduces Grapevine Crown Gall Against Higher Cell Numbers of Tumorigenic *R. vitis* in a Co-Inoculation Study.**
*Abdullah Nahiyan, Akiko Mangan, and Mizuho Nita (Virginia Tech).*

9:30 - 9:45 **Wine Grape Field Trials (BioSafe, PlantAid, Helena, and protective shield) at Winchester, VA, 2019.**
*Mizuho Nita, Abdullah Nahiyan (Virginia Tech), and Jungkwan Lee (Dong-A Univ.).*

9:45 - 10:00 **Quantification of *Colletotrichum fioriniae* in the Forest Suggest Its Main Ecological Role is that of a Leaf Endophyte.**
*Phillip Martin and Kari Peter (Penn State Univ.).*

10:00 - 10:15 **Sensitivity Distribution to 11 Fungicides in a Population of *Colletotrichum* Isolates from Apple.**
*Kristen Pierce, Kate Thomas, Phillip Martin, Kari Peter (Penn State Univ.).*

10:15 - 10:30 **Highlights of 2019 Apple Fungicide Tests.**
*Keith Yoder, William Royston Jr., and Scott Kilmer (Virginia Tech AREC).*

10:30 - 10:45 **Management of Peach Bacterial Spot: Integration of Biorational Bactericides and Cultivar Resistance.**
*Norman Lalancette and Lorna Blaus (Rutgers Univ.).*