

**97<sup>th</sup> Cumberland-Shenandoah Fruit Workers Conference**  
December 1 - 3, 2021  
Virtual Meeting, Hosted by Virginia Tech, AHSAREC, Winchester, VA

**CONFERENCE AGENDA**

**\*All times listed are EST\***

**Wednesday, December 1:**

8:45 AM – 9:00 AM	Zoom Link Open
9:00 AM – 9:10 AM	Call to Order, Welcome, and Housekeeping
9:10 AM – 10:10 AM	Call of the States
10:10 AM – 10:30 AM	Call of the Industry
10:30 AM – 11:15 AM	Plenary Session <b>Challenges and Solutions (?) in PNW Tree Fruit Production</b> Byron Phillips, Key Account Manager, Wilbur-Ellis
11:15 AM – 11:30 AM	BREAK
11:30 AM – 12:15 PM	Business Meeting
12:15 PM – 1:25 PM	Lunch Break
1:25 PM – 5:15 PM	Horticulture Session

**Thursday, December 2:**

8:25 AM – 2:45 PM	Entomology Session
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**Friday, December 3:**

8:25 AM – 2:15 PM	Plant Pathology Session
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**Horticulture Session**  
**Wednesday, December 1<sup>st</sup>**

- 1:25 – 1:30 PM**      **Welcome and housekeeping** *Moderator: Tom Kon, NC State University*
- 1:30 – 1:45 PM**      **The future of the Appalachian Fruit Research Station's pome fruit breeding program**  
*Christopher Gottschalk, USDA-ARS Appalachian Fruit Research Center*
- 1:45 – 2:00 PM**      **Addressing herbicide trunk deposition in high density apple systems**  
*Janet van Zoeren and Michael Basedow, Cornell Cooperative Extension.*
- 2:00 – 2:15 PM**      **A quantitative weed IPM program for New Jersey blueberries**  
*Carrie Denson and Dean Polk, Rutgers University*
- 2:15 – 2:30 PM**      **Effect of timing and air output of pneumatic defoliation on canopy light distribution and red color of apple**  
*Jim Schupp and Melanie Schupp, Penn State Fruit Research and Extension Center*
- 2:30 – 2:45 PM**      **Effects of ReTain and Harvista on the pre-harvest drop and cracking of ‘Gala’ apple**  
*Sherif Sherif, Jianyang Liu, and Tabibul Islam, Virginia Tech AHSAREC.*
- 2:45 – 3:00 PM**      **Assessing the efficacy of GA4+7 products for the control of stem-end splitting in ‘Gala’ apples**  
*Sherif Sherif, Tabibul Islam, and Jianyang Liu, Virginia Tech AHSAREC.*
- 3:00 – 3:30 PM**      **Additional questions / Targeted discussion: Fruit finish and cracking**
- 3:30 – 3:45 PM**      **Break**
- 3:45 – 4:00 PM**      **Bloom thinning with the PTGM in Northern NY**  
*Michael Basedow, Cornell Cooperative Extension: ENYCHP*
- 4:00 – 4:15 PM**      **A RECIPE for predicting fruit set using the fruitlet growth rate model: tested in 2021**  
*Jon Clements, UMass Extension*
- 4:15 – 4:30 PM**      **Vis/NIR Spectroscopy is a promising tool to predict apple fruitlet abscission**  
*Jimmy Larson and Tom Kon, NC State University*
- 4:30 – 4:45 PM**      **Evaluation of the new materials ACC and Metamitron for chemical thinning of ‘Gala’ apples**  
*Anna Wallis, MSU Extension*
- 4:45 – 5:00 PM**      **Effects and interactions of blackberry genotype and PGRs on vegetative growth**  
*Tom Kon, Chris Clavet, and Ann Piotrowski, NC State University*
- 5:00 – 5:15 PM**      **Additional questions and open discussion**

**Entomology Session**  
**Thursday, December 2<sup>nd</sup>**

- 8:25 – 8:30 AM**      **Welcome and housekeeping** *Moderator: Steve Schoof, NC State University*
- 8:30 – 8:45 AM**      **Distribution of 17-year periodical cicada nymphal exuviae and oviposition injury in Mid-Atlantic apple orchards**  
*Chris Bergh<sup>1</sup>, Jared Dyer<sup>1</sup>, Nate Brandt<sup>1</sup>, John Cullum<sup>2</sup>, Laura Nixon<sup>2</sup>, Tracy Leskey<sup>2</sup>, and Mizuho Nita<sup>1</sup>. Virginia Tech AHSAREC<sup>1</sup> and USDA-ARS Appalachian Fruit Research Center<sup>2</sup>*
- 8:45 – 9:00 AM**      **Management impacts on secondary orchard pests and beneficial insects under mating disruption**  
*Jake Newcombe and Anne Nielsen. Rutgers University*
- 9:00 – 9:15 AM**      **Mating disruption in small apple plots: Does it work?**  
*Tracy C. Leskey, John Cullum, Chris Hott, and Lee Carper. USDA-ARS Appalachian Fruit Research Station*
- 9:15 – 9:30 AM**      **In-situ distribution of plum curculio *Conotrachelus nenuphar* in peach and blueberry farms**  
*Timothy Lampasona, Anne Nielsen, and Cesar Rodriguez-Saona. Rutgers University*
- 9:30 – 9:45 AM**      **Assessing the impact of ruby-throated hummingbird predation on spotted-wing drosophila in raspberry**  
*Juliet Carroll, Percival Marshall, Nicole Mattoon, Courtney Weber, Greg Loeb. Cornell University*
- 9:45 – 10:00 AM**      **Effects of buckwheat strips on abundances of beneficial and pest insect species in experimental peach orchards**  
*Emma Waltman and Anne Nielsen. Rutgers University*
- 10:00 – 10:15 AM**      **Additional Questions and open Discussion**
- 10:15 – 10:30 AM**      **BREAK**
- 10:30 – 10:45 AM**      **Monitoring BMSB revisited - research and practice**  
*Greg Krawczyk and Edwin Winzeler. Penn State University Fruit Research and Extension Center*
- 10:45 – 11:00 AM**      **Does trap location matter? Comparing captures of *Trissolcus japonicus* in mid- and lower canopy yellow sticky cards**  
*Jared Dyer<sup>1</sup>, Elijah Talamas<sup>2</sup>, Tracy Leskey<sup>3</sup>, and Christopher Bergh<sup>1</sup>. Virginia Tech AHSAREC<sup>1</sup>, Florida Department of Agriculture and Consumer Services<sup>2</sup>, USDA-ARS Appalachian Fruit Research Station<sup>3</sup>*
- 11:00 – 11:15 AM**      **Conventional and molecular assessment of parasitism in stink bug sentinel egg masses**  
*James R. Hepler<sup>1</sup>, Kacie Athey<sup>2</sup>, David Enicks<sup>3</sup>, Paul K. Abram<sup>4</sup>, Tara D. Gariepy<sup>4</sup>, Elijah J. Talamas<sup>5</sup>, and Elizabeth Beers<sup>3</sup>. USDA-ARS Appalachian Fruit Research Station<sup>1</sup>, University of Illinois at Urbana Champaign<sup>2</sup>,*

*Washington State University TFREC<sup>3</sup>, Agriculture and Agri-Food Canada<sup>4</sup>, and Florida Department of Agriculture and Consumer Services<sup>5</sup>*

- 11:15 – 11:30 AM**      **What to do about BMSB on Granny Smith apples?**  
*Jim Walgenbach, Steve Schoof, and Emily Ogburn. NC State University*
- 11:30 – 11:45 AM**      **Is Attract-and-Kill a viable option for brown marmorated stink bug control in NC apples?**  
*Steve Schoof and Jim Walgenbach. North Carolina State University*
- 11:45 – 12:00 PM**      **Additional questions / Open discussion**
- 12:00 – 1:00 PM**      **Lunch**
- 1:00 – 1:15 PM**      **Incipient invasion of spotted lanternfly into Northern Virginia vineyards**  
*Johanna Elsensohn. USDA-ARS Appalachian Fruit Research Station*
- 1:15 – 1:30 PM**      **Spotted lanternfly, *Lycorma delicatula*, enters Virginia vineyards**  
*Doug Pfeiffer<sup>1</sup>, Jason Bielski<sup>1</sup>, and Mark Sutphin<sup>2</sup>. Virginia Tech<sup>1</sup> and Virginia Cooperative Extension<sup>2</sup>*
- 1:30 – 1:45 PM**      **Spotted lanternfly phenology in New Jersey**  
*Katarzyna Madalinska and Anne L. Nielsen. Rutgers University*
- 1:45 – 2:00 PM**      **Update on female spotted lanternfly reproductive development in eastern Pennsylvania**  
*Julie Urban and Dennis Calvin. Penn State University*
- 2:00 – 2:15 PM**      **Management of overwintering spotted lanternfly (*Lycorma delicatula*) egg masses with the entomopathogenic fungus, *Beauveria bassiana***  
*Jason Bielski, Douglas Pfeiffer, and Stefan Jaronski. Virginia Tech*
- 2:15 – 2:30 PM**      **Season-long effects of spotted lanternfly infestation on young apple and peach trees: Short-term effects and long-term plans**  
*Laura J. Nixon, Lisa Tang, Caitlin Barnes, Tony Rugh, and Tracy C. Leskey. USDA-ARS Appalachian Fruit Research Station*
- 2:30 – 2:45 PM**      **Additional questions and open discussion**

**Plant Pathology Session**  
**Friday, December 3<sup>rd</sup>**

- 8:25 – 8:30 AM**      **Welcome and housekeeping** *Moderator: Sara Villani, NC State University*
- 8:30 – 8:45 AM**      **Summary of peach disease control using biorational materials**  
*Norman Lalancette and Lorna Blaus. Rutgers University*
- 8:45 – 9:00 AM**      **Investigation of alternative fungicides for preharvest peach brown rot control**  
*Guido Schnabel, William Gura, and Jeff Hopkins. Clemson University*
- 9:00 – 9:15 AM**      **Edging out the competition: The blue mold fungus uses patulin to exclude other fungi at the food infection court**  
*Holly Bartholomew, Michael Bradshaw, Otilia Macarisin, Verneta Gaskins, Jorge Fonseca, and Wayne Jurick II. USDA-ARS Food Quality Lab*
- 9:15 – 9:30 AM**      **Using leaf wetness and temperature to predict *Colletotrichum* infection of grapes**  
*Scott Cosseboom and Mengjun Hu. University of Maryland.*
- 9:30 – 9:45 AM**      **Fungicide field trials: Grape powdery mildew and downy mildew, Winchester, VA 2021**  
*Mizuho Nita and Kenneth Savia. Virginia Tech AHSAREC*
- 9:45 – 10:00 AM**      **Fungicide field trials: Grape late season rots and protective materials, Winchester, VA 2021**  
*Mizuho Nita and Kenneth Savia. Virginia Tech AHSAREC*
- 10:00 – 10:15 AM**      **Additional Questions / Open Discussion**
- 10:15 – 10:30 AM**      **BREAK**
- 10:30 – 10:45 AM**      **Spring snow cover and apple scab pseudothecial development**  
*Juliet Carroll, Wayne Wilcox, Ron Neville, Judy Nedrow, and Percival Marshall. Cornell University*
- 10:45 – 11:00 AM**      **Control of shoot blight and cankers on pear with Regalia and the effect of Gatten® and Parade® on apple powdery mildew**  
*Srđan Aćimović<sup>1</sup>, Christopher Meredith<sup>2</sup>, Andrew Davis<sup>1</sup>, and Vivien Wong<sup>1</sup>. Virginia Tech AHSAREC<sup>1</sup> and Cornell University<sup>2</sup>.*
- 11:00 – 11:15 AM**      **Tackling the role of environmental and host factors in *Erwinia amylovora* survival and long-term persistence in fire blight cankers**  
*Ricardo Delgado Santander<sup>1</sup>, Christopher Meredith<sup>1</sup>, Fatemeh Khodadadi<sup>2</sup>, Jon Clements<sup>3</sup>, and Srđan Aćimović<sup>2</sup>. Cornell University<sup>1</sup>, Virginia Polytechnic Institute and State University<sup>2</sup>, and University of Massachusetts Amherst<sup>3</sup>*
- 11:15 – 11:30 AM**      **Plant pathogens associated with ambrosia beetles attacking apple trees: Hitchhikers, bed-fellows, or beacons for beetle attack?**  
*Sean Gresham, Jim Walgenbach, and Sara Villani. North Carolina State University*

- 11:30 – 12:00 PM**      **Additional questions and targeted discussion: A challenging year for bitter rot?**
- 12:00 – 1:00 PM**      **Lunch**
- 1:00 – 1:15 PM**      **Exploring the effects of spray tactics on selection for fenhexamid resistance in *Botrytis cinerea***  
*Stephen Boushell and Mengjun Hu. University of Maryland*
- 1:15 – 1:30 PM**      **Apple chlorotic leaf spot virus on cv. Pristine in New England orchards**  
*Kathleen Leahy. Polaris Orchard Management*
- 1:30 – 1:45 PM**      **Apple blotch (Marssonina Leaf Blotch) disease caused by *Diplocarpon coronariae*: A rising problem in the Mid-Atlantic, US**  
*Fatemeh Khodadadi<sup>1</sup>, Phillip Martin<sup>2</sup>, Kari Peter<sup>2</sup>, Daniel J. Donahue<sup>3</sup>, and Srđan Aćimović<sup>1</sup>. Virginia Tech AHSAREC<sup>1</sup>, Penn State University<sup>2</sup>, and Cornell Cooperative Extension<sup>3</sup>.*
- 1:45 – 2:00 PM**      **Unraveling *Colletotrichum* species causing Glomerella leaf spot and bitter rot on apple in NC**  
*Sara Villani<sup>1</sup>, Rachel Douglas<sup>1</sup>, Kendall Johnson<sup>2</sup>, Michael Bradshaw<sup>3</sup>, and Wayne Jurick<sup>4</sup>. NC State University<sup>1</sup>, University of Georgia<sup>2</sup>, Harvard University<sup>3</sup>, and USDA-ARS Beltsville<sup>4</sup>.*
- 2:00 – 2:15 PM**      **Additional questions and open Discussion**