MANAGE What You Can Control,

PLAN For What You Can't

Washington State Tree Fruit Association

114^{тн} ANNUAL MEETING & NW HORT EXPO Yakima, Washington December 3, 4 & 5, 2018

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Welcome

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Sean Gilbert WSTFA Annual Meeting Committee Chair

As our annual meeting planning committee came together this spring to discuss topics the proposed

themes quickly fell into two distinct concepts: growing better fruit with the latest research and perspectives, as well as discussion of the latest trends and issues domestically and abroad. From these differing items, the concept of "Manage what you can control, plan for what you can't" became our theme.

This year's Batjer speaker is Dr. Vikram Mansharamani, a renowned economist and Harvard lecturer who will give us his unique perspective on the geopolitical landscape as well ideas for how our businesses can succeed in our current environment. As our industry tries to understand the role of outside capital, dynamics of markets that we export to, and where we are headed to, Vikram will provide a fascinating talk for us to enjoy.

Despite some wonderful temperatures for cherry, apple and pear harvests, it was still a year of continued challenges for issues such as bitterpit and fireblight. At the same time, input costs for both labor and spray seem to be continually outpacing inflation. With the goal of tackling these issues head-on, our committee has put together an agenda that brings the best minds and speakers from around the country and the world to educate us with ideas that make our industry stronger.

Of particular interest, our committee felt that fireblight needed a stand-alone session to give it the importance that we feel it deserves. In the last few years in my own operation, I've learned that everything I thought I knew about fireblight was either incomplete or incorrect, and that gaps in that knowledge threaten the viability of a large number of acres. Dr. Tianna DuPont has put together an ambitious session that will help us tackle this destructive problem.

Other topics that our committee is excited about include labor benchmarking, efficient orchard structures, resistance management in postharvest decay, canopy management, pest and disease management, and, of course, WA38, aka Cosmic Crisp[™]. Our Spanish session this year will be headed by Lauren Gonzalez, who has put together a lineup that has a lot of crossover topics with the English language session.

As we attend the many sessions of the 2018 annual meeting, it is my hope that people will be challenged to evaluate their own operations as well as share ideas with their peers in the hallways, at shared meals, and at the tradeshow. In my opinion our industry's success has come from special climate and geographical advantages, as well as a broad mix of independent growers and vertically-integrated grower-packer-marketers that keep our industry robust and antifragile. I believe that this annual meeting is the perfect venue to support our diverse grower base and help us get stronger than ever in the face of adversity.

Sean Gilbert

2018 WSTFA Annual Meeting Committee Chair

Washington State Tree Fruit Association 105 S 18th St #116 | Yakima, WA 98901 Phone: 509.452.8555 | Fax: 509.452.8754

2900 Euclid Avenue | Wenatchee, WA 98801 Phone: 509.665.9641 | Fax: 509.665.8541 Website: www.wstfa.org



WSTFA Mission Statement

The WSTFA's mission is to add value to all segments of the tree fruit industry through educational programs and conferences, statistics to enable growers and packers to plan for market opportunities, and engagement in Washington State government affairs to help address the market uncertainty driven by government policy.

2018 ANNUAL MEETING PLANNING COMMITTEE

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Karen Lewis, WSU Extension

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Bernardita Sallato, WSU-CAHNRS

Tory Schmidt, WTFRC

Teah Smith, Zirkle Fruit Company

Matt Whiting, WSU

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WSTFA 114th Annual Meeting and NW Hort Expo

TRADE SHOW HOURS

Monday: 8:00 a.m. -5:00 p.m. Tuesday: 8:00 a.m. - 5:00 p.m. Wednesday: 8:00 a.m. - 12:00 p.m.

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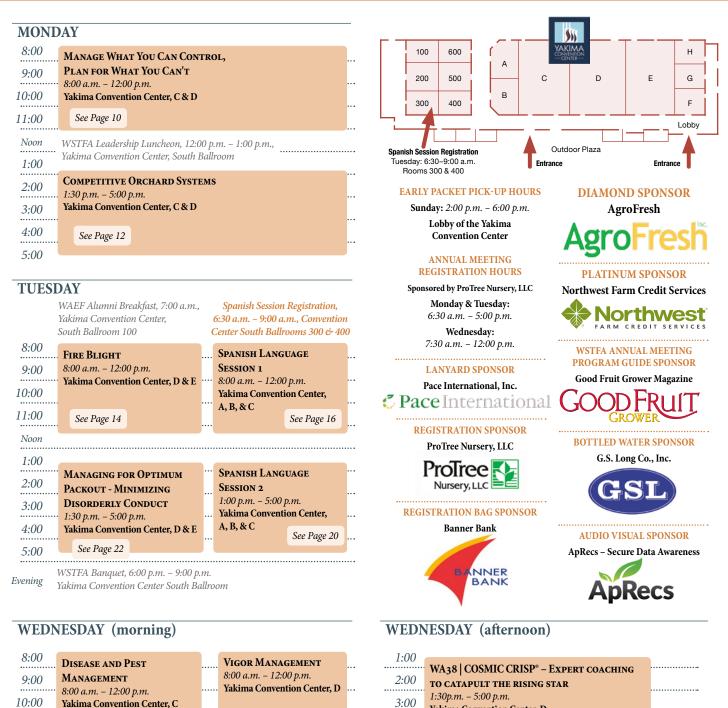


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WSTFA 114th Annual Meeting and NW Hort Expo

Schedule Highlights



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11:00

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4:00

5:00

Monday, December 3

MEETING ETIQUETTE

* Cell phones and beepers must be muted in session rooms.

 * Please take conversations unrelated to the program outside the session rooms.

* Arriving on time to sessions will avoid entering/leaving session rooms when a speaker is presenting.

Manage What You Can Control, Plan for What You Can't

8:00 A.M. - 12:00 P.M.

Session Sponsor: AgroFresh Session Manager: Sean Gilbert, Annual Meeting Chair Location: Yakima Convention Center, C & D

- 8:00 Welcome Jim Colbert, WSTFA Chairman of the Board
- 8:10 WTFRC Leadership Transition Ines Hanrahan, Executive Director, WTFRC & Mike Willet, WTFRC
- 8:30 The Future of CAHNRS and the Tree Fruit Industry Dr. André-Denis Girard Wright, Dean, College of Agricultural, Human and Natural Resource Sciences.
- 9:00 U.S. Apple Association Up-Date Jim Bair, President & CEO, US Apple Association

9:15 WSTFA: New approaches to industry advocacy — Jon DeVaney, President, Washington State Tree Fruit Association

- 9:30 International Market Perspective Todd Fryhover, President, Washington Apple Commission
- 9:45 Coordinating the Industry to Maximize Value Panel: Jon DeVaney, President, Washington State Tree Fruit Association; Todd Fryhover, President, Washington Apple Commission; & Brian Focht, Manager, The Marketing Associations
- 10:15 Apple Trends at Retail Hailey Peyron, Client Manager, Nielsen
- 10:45 **Remarks From Keynote Speaker Sponsor** The Northwest Seaport Alliance
- 10:50 **39th Batjer Address** Dr. Vikram Mansharamani, President, Kelan Advisors

WSTFA Leadership Luncheon

.2:00 P.M. – 1:00 P.M

Session Sponsor: Domex Superfresh Growers

Host: Jon DeVaney, President, Washington State Tree Fruit Association Guest Speaker: To Be Announced

Location: Yakima Convention Center, South Ballroom

BOARD & COMMISSION NOMINATIONS

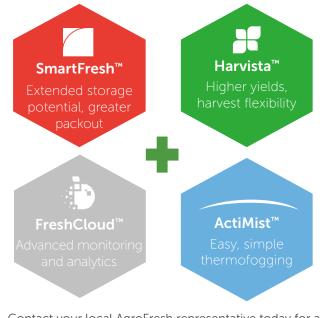
1:15 P.M.

Location: Yakima Convention Center, C & D Board & Commission Nominations, WSDA



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Monday, December 3

COMPETITIVE ORCHARD SYSTEMS

1:30 P.M. - 5:00 P.M.

Session Sponsors: Northwest Farm Credit Services Session Manager: Mark Hambelton, MM Orchards, Karen Lewis, Regional Extension Specialist, WSU Extension

Location: Yakima Convention Center, C & D

- 1:30 The Good, the Bad, the Necessary Mark Hambelton, MM Orchards & Karen Lewis, WSU Extension
- 2:00 Using Orchard Systems to Mitigate Risks: Panel Moderator, Jason Matson, Matson Fruit; Panelists: Scott Crawford, Borton Fruit; Tye Fleming, Helios Nursery; & Dan Plath, Washington Fruit & Produce
- 2:50 Transitioning from 3-D to 2-D Canopies with Pruning, Hedging, and via Grafting of an Old Block — Mario Miranda Sazo, Fruit Extension Specialist, Cornell Cooperative Extension
- 3:45 Taking Advantage of Climate Extremes to Grow High Quality Tree Fruit — Lee Kalcsits, WSU Wenatchee
- 4:15 Where the Rubber Hits the Road: Panel Moderator, Suzanne Bishop, Allan Brothers Inc.; Panelists: Vince Jones, WSU Wenatchee, TBD



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WAEF ALUMNI BREAKFAST

7:00 A.M.

Sponsor: Washington Apple Education Foundation Host: Jennifer Witherbee, Washington Apple Education Foundation Location: Yakima Convention Center, South Ballroom 100

Research News Flash

8:00 A.M

Sponsor: Papé Material Handling Location: Yakima Convention Center, Rooms G & F SCHEDULE AND DETAILS ON PAGES 30-34

COMMUNICATING SUCCESS

10:30 A.M. – 11:30 A.M

Location: Yakima Convention Center, South Ballroom 200

- 10:30 MeasureTek MTx Control A modular, integrated IoT platform incorporating irrigation by zone, crop type, time interval, water volume and, or environmental variables. Comprehensive automation control utilizing wireless valves and full VFD integration with pump and dispersion control via schedules, monitored variables on smart devices and our mobile app.
- 11:30 MeasureTek MTx Distributed sensors in an integrated IoT platform provides algorithms that combine measurements from multiple sensors, often at different geographical locations, to provide real-time data for orchard managers and field personnel. An IoT Solution allowing the integration of monitoring and control equipment from multiple hardware manufacturers into a single cohesive software package.

FIRE BLIGHT

8:00 A.M. - 12:00 P.M.

Session Sponsor: Valent

Session Managers: Tianna DuPont, Extension Specialist, WSU Extension Location: Yakima Convention Center, D & E

- 8:00 Introduction Tianna DuPont, Extension Specialist, WSU Extension
- 8:10 Relative Cultivar Susceptibility to Fire Blight Sarah Kostick, Washington State University
- 8:20 Rootstock Susceptibility to Fire Blight Gennaro Fazio, Research Geneticist, USDA ARS
- 8:50 Assessing and Minimizing the Threat of Fire Blight Following Mechanical Thinning and Hedging — Kerik Cox, Associate Professor, Cornell University
- 9:10 Using Apogee and Regalia at Pink to Reduce Flower Infections Kerik Cox, Associate Professor, Cornell University
- 9:30 SARs and Low Rate Apogee Applications for Shoot Blight Kari Peter, Assistant Research Professor & Tree Fruit Pathology Penn State University
- 10:00 **Organic Controls that Work** Ken Johnson, Professor of Plant Pathology, Oregon State University; Mark Lapiere, Wilbur Ellis; & Neil Johnson, North West Wholesale.



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14 WSTFA 114th Annual Meeting & NW Hort Expo

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SPANISH LANGUAGE SESSION 1

8:00 A.M. - 12:00 P.M.

Concurrent Session

Session Sponsor: Broetje Orchards

Session Manager: Lauren Gonzalez, G.S. Long Company, Manoella Mendoza, Research Tech., Washington Tree Fruit Research Commission

Location: Yakima Convention Center, A, B, & C

- 8:00 Bienvenida e introducción / Welcome and Introduction Lauren Gonzalez, G.S. Long Company & Sean Gilbert, Gilbert Orchards
- 8:15 Fisiología de Árboles Frutales 101 / Tree Fruit Physiology 101 Bernardita Sallato, Associate Researcher, WSU-CAHNRS
- 9:00 Aceptando el uso de nuevas tecnologías en una huerta moderna de manzana / Embracing the Use of New Technologies in a Modern Apple Orchard — Mario Miranda Sazo, Fruit Extension Specialist, Cornell Cooperative Extension
- 9:45 Prevención de enfermedades postcosecha / Preventing Post-Harvest Disorders — Ines Hanrahan, Executive Director, Washington Tree Fruit Research Commission

10:00 Receso / Break

- 10:10 Good Fruit Grower en Español / Good Fruit Grower in Spanish Maria Fernandez, Circulation Manager, Good Fruit Grower
- 10:20 Recursos en español del programa de producción orgánica de WSDA /Spanish Resources from the WSDA Organic Program — Sam Schaefer-Joel, Outreach and Education Specialist, WSDA
- 10:50 Uso de nematodos entomopatogenicos como una nueva herramienta biologica / Beneficial Nematodes use as a new biological tool — Dr. Diana K Londoño, Global Tech for Beneficial Nematodes and Early Bio-insecticide Screening, BASF Corporation
- 11:10 Manejo de una huerta orgánica / Managing an Organic Farm, Panel de discusión / Grower Panel Rob Call, Bear Creek Orchard & TBA
- 11:40 Ley de Protección al Trabajador (WPS) y actualización del programa de capacitación de WSDA / Worker Protection Standard (WPS) and WSDA Training Program Updates — Flor Servin, Education & Outreach Services Unit Supervisor, WSDA

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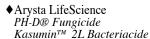
The essential resource, in Spanish



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Tuesday, December 4

SPANISH LANGUAGE SESSION 2

1:00 P.M. - 5:00 P.M.

Session Sponsor: Stemilt Growers Session Manager: Lauren Gonzalez, G.S. Long; Manoella Mendoza, Research Tech., Washington Tree Fruit Research Commission

Location: Yakima Convention Center, A, B, & C

- 1:45 Logística de la sesión de la tarde / Housekeeping for the Afternoon Session — Lauren Gonzalez, G.S. Long Company
- 1:50 Manejo de una huerta de Cosmic Crisp^{*} / Cosmic Crisp^{*} Orchard Management — Dave Gleason, Kershaw Companies
- 2:15 Resumen de actividades cosecha y postcosecha / Harvest and Post-Harvest Overview — Manoella Mendoza , Research Tech., Washington Tree Fruit Research Commission
- 2:40 Recursos Educativos / Educational Resources Jacqui Gordon, Director of Training, Education & Member Services, Washington State Tree Fruit Association;

Eladio Gonzales, Orchard Manager, G.S. Long Company;

Maria Fernandez, Circulation Manager, Good Fruit Grower;

Talia Barajas, Scholarship Program Manager, Washington Apple Education Foundation;

Francisco Sarmiento, Hispanic Orchard Employee Education Program, Wenatchee Valley College

Ofelio Borges, Technical Services and Education Program Manager, WSDA

3:10 Receso / Break

- 3:20 ¡Celebremos! El impacto local y global de lo que hemos logrado juntos. / Let's Celebrate! The Local and Global Impact of What We Accomplish Together — Karen Lewis, Regional Extension Specialist, WSU Extension, Victor Bueno, Orchard Manager, Washington Fruit & Produce, Jorge Villaseñor, Corteva
- 3:40 Premio de Liderazgo Latino / Latino Leadership Award
- 3:50 Manejo integrado del fuego bacteriano / Integrated Management of Fireblight

Presentación y Resumen / Introduction and Overview — *Tianna* DuPont, Extension Specialist, WSU Extension

Panel de Discusión – Preguntas y Respuestas / Grower Panel – Q&A — Victor Bueno, Orchard Manager, Washington Fruit & Produce, Jorge Villasenor, Corteva

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MANAGING FOR OPTIMUM PACKOUT

- MINIMIZING DISORDERLY CONDUCT

1:30 P.M. - 5:00 P.M.

Session Sponsor: Pace International

Session Managers: Dana Faubion, Research and Development, AgroFresh; Richard Kim, Director of Plant Pathology, Pace International Location: Yakima Convention Center. D & E

- 1:30 The Causes of the Recent Decay Outbreak in Washington Apples Richard Kim, Director of Plant Pathology, Pace International
- 2:00 The basics of fungicide resistance management in the gray mold pathogen Botrytis cinerea — *Guido Schnabel, Clemson University*
- 2:30 **The New WSU Fruit Defect Guide** Ines Hanrahan, Executive Director, Washington Tree Fruit Research Commission & Rob Blakey, Research & Development Manager, Stemilt Growers
- 2:45 Benefit and Risks of Drench and Thermonebulization of Fungicides to Control Storage Decays — Achour Amiri, Plant Pathology, WSU-TFREC
- 3:15 Quality Impacts of Smoke Washington Wine Tom Collins, Assistant Professor, WSU
- 3:45 Prediction of Physiological Storage Disorders using Genomics Nigel Gapper, Global Genomics Leader, AgroFresh
- 4:15 Harvest management and orchard practices influencing fruit quality — Panel: Bruce Allen, Columbia Reach Pack; Jake Gutzwiler, Stemilt Growers; Jason Matson, Matson Fruit; Nick Plath, Washington Fruit & Produce; Paul Steikema, Douglas Fruit

WSTFA BANQUET

5:00 P.M. - 9:00 P.M.

Master of Ceremonies: Cragg Gilbert, Gilbert Orchards Banquet Sponsor: Good Fruit Grower Hors d 'Oeuvres Sponsor: Wilbur Ellis Dessert Buffet Sponsor: AgroFresh Location: Yakima Convention Center South Ballroom

- 6:00 Reception
- 6:00 Connecting with Research News Flash presenters and WSU Apple Tasting
- 7:00 Dinner & Awards

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22 WSTFA 114th Annual Meeting & NW Hort Expo

DISEASE AND PEST MANAGEMENT

8:00 A.M. - 12:00 P.M.

Concurrent Session

Session Sponsor: Corteva Agriscience

Co-Session Managers: Teah Smith, Entomologist/Ag. Consultant, Zirkle Fruit Company; Mike Doerr, Strategic Account Leader, Corteva Agriscience Location: Yakima Convention Center. C

8:00 Welcome

- 8:05 Systems approaches to pest management Tobin Northfield, Entomologist, WSU TFREC
- 8:30 New tools for IPM and horticulture coming in 2019 for apple, pear, and stone fruit — Vince Jones, Entomologist, WSU-TFREC
- 8:55 WA-SIR: update on the sterile codling moth release project in Washington Betsy Beers, Entomologist, WSU-TFREC
- 9:20 Invasive species: the new normal Betsy Beers, Entomologist, WSU-TFREC
- 9:45 Monitoring and management of Oriential fruit moth: options for Washington orchards — Peter Shearer, Entomologist, Cal Poly San Luis Obispo, CA
- 10:10 Pear Psylla Management Research in 2018 Louie Nottingham, Postdoctoral Research Associate, WSU TFREC
- 10:35 Entomopathogenic nematodes used as a new biological tool to control Codling moth and other Orchards' insect pests — Dr. Diana K Londoño, Global Tech for Beneficial Nematodes and Early Bioinsecticide Screening, BASF Corporation
- 11:00 **Trees, Viruses, and You** Scott Harper, Director, Northwest Clean Plant Center
- 11:25 Panel Q&A on Implementation Travis Schoenwald, Gebbers Farms; Ray Schmitten, Wenatchee Valley Pear Grower; Mike Van Pelt, Kershaw Companies; Nick Plath, Washington Fruit & Produce

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VIGOR MANAGEMENT

8:00 A.M. - 12:00 P.M.

Concurrent Session

Session Sponsor: G.S. Long Co.

Session Manager: Bernardita Sallato, Associate Researcher, WSU-CAHNRS; Tory Schmidt, Project Manager, Washington Tree Fruit Research Commission; Matt Whiting, Professor & Horticulturist, WSU-IAREC

Location: Yakima Convention Center, D

- 8:15 Vigor What's That Supposed to Mean? Matt Whiting, Professor & Horticulturist, WSU-IAREC
- 8:45 Vigor Controlling Strategies to Manage Bitter Pit in Honeycrisp Lee Kalcsits, WSU-Wenatchee
- 9:15 Adventures and Misadventures in Matching Rootstocks to Site — Panel: Scott McDougall, McDougall & Sons; Mario Martinez, Washington Fruit & Produce; Bruce Allen, Columbia Reach Orchards
- 10:00 Nutrition and PGRs for Vigor Management Dan Griffith, G.S. Long
- 10:30 Water Management Strategies to Control Orchard Vigor Panel: Moderator: Mike Robinson, Double Diamond Fruit; Panelists: Travis Allan, Yakima Valley Orchards; Andrew del Rosario, Washington Fruit & Produce; Chris Peters, Valley Fruit: & Mike Stewart, Stewart Irrigation Consulting

11:45 Session Wrap Up



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WA38 COSMIC CRISP® – Expert coaching to catapult the rising star 1

1:30P.M. - 5:00 P.M.

Session Sponsor: Key Bank

Session Manager: Karen Lewis, Regional Extension Specialist, WSU Extension; Ines Hanrahan, Executive Director, Washington Tree Fruit Research Commission

Location: Yakima Convention Center, D

1:30 Introduction

- 1:40 Planting trends, marketing, royalty collection and allocation Lynnell Brandt, President, Proprietary Variety Management & Scot Hulbert, Interim Associate Dean for Research, WSU CAHNRS
- 2:40 Research and Extension Projects | Communication WSU Pilot Orchards Program | Field Tour Summaries; Karen Lewis, Regional Extension Specialist, WSU Extension; Ines Hanrahan, Executive Director, Washington Tree Fruit Research Commission

3:10 Research and Extension Updates

Rootstocks — Tom Auvil, North American Plants

Nutrient management for vigor control — *Bernardita Sallato, Associate Researcher, WSU-CAHNRS*

Mechanical pruning and pollinizers — *Karen Lewis, Regional Extension Specialist, WSU Extension*

Fruit quality — Ines Hanrahan, Executive Director, Washington Tree Fruit Research Commission

3:50 Getting it right from the start: A Panel Discussion — Moderator: Jim McFerson, WSU Wenatchee; Panelists: Tom Auvil, North American Plants; Troy Huck, Monson Fruit; Conor Killian, Killian Orchards; & Paul Stiekema, Douglas Fruit

4:50 Closing remarks

STATE FFA APPLE/PEAR JUDGING

0:00 A.M. - 11:45 A.M.

Location: Yakima Convention Center, B

STUDENT FFA LEADERSHIP LUNCHEON 12:00 P.M. – 1:0

Session Sponsor: Washington Apple Education Foundation Host: Jennifer Witherbee, Washington Apple Education Foundation, Executive Director Location: Yakima Convention Center, 400



Shelby Dietrich, WAEF Scholarship Recipient 2014-2018, Eastern Washington University, Graduate, Summa Cum Laude

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Research News Flash — Tuesday, December 4

Session Sponsor: Papé Material Handling, Convention Center, Rooms G&F

8:00 Introduction — Faith Critzer, WSU

POSTHARVEST

- 8:05 STEM outreach for the future of specialty crops Heidi Hargarten, USDA ARS TFRL
- 8:10 Genomics for better fruit Loren Honaas, USDA ARS TFRL
- 8:15 Update on fungicide drench and thermonebulization to control postharvest diseases — "Vikas Koundal," WSU-TFREC
- 8:20 Feasibility of stem clipping in WA 38 Monique Borba, WTFRC
- 8:25 Q&A

EXTENSION

8:35	Starch scale for WA 38 — Victor Villegas, WTFRC
8:40	China tariff effect on WA tree fruit industry — R.K. Gallardo, WSU
8:45	Q&A

ENVIRONMENTAL STRESS PHYSIOLOGY

- 8:55 Cellulose Nanocrystals Reduce Cold Damage To Reproductive Buds — Brent Arnoldussen, WSU
- 9:00 Stem Water Potential as a Water Management Tool Connor Dykes, WSU IAREC
- 9:05 Q&A

TREE FRUIT PHYSIOLOGY

New PGR to help manage flowering in apple — <i>Martin Blackburn, WTFRC</i>
Prediction of bitter pit for Honeycrisp apples — <i>Raquel Gomez</i> , <i>WSU IAREC</i>
Can deficit irrigation be used as a tool to improve fruit quality in 'Honeycrisp'? An Update. — <i>Michelle Reid, WSU TFREC</i>
Exogenously Applied Abscisic Acid to Control Bitter Pit in Honeycrisp Apples — Raquel Gomez, WSU TFREC
TBA
Q&A

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Research News Flash — Tuesday, December 4 Convention Center, Rooms G&F

PLANT PATHOLOGY & SAFETY

9:50	Functional validation of apple genes on their roles in resistance to
	apple replant pathogen — Yanmin Zhu, USDA ARS TFRL

- 9:55 Investigation into Fungicide Resistance in Apple Powdery Mildew Lederson Gañán, WSU TFREC
- 10:00 "Evalution of ozone to control decays in storage" Achour Amiri, WSU
- 10:05 Results from the pear decay survey in the Pacific Northwest Laxmi Koirala Pandit, WSU TFREC
- 10:10 Alternative Methods to Control Replant Disease Shashika S. Hewavitharana, USDA-ARS
- 10:15 Dynamic variation of Botrytis populations in pear orchards of the Pacific Northwest — Louis Bengyella, WSU
- 10:20 Cherry Powdery Mildew- a Molecular Perspective Dr. Prashant Swamy, WSU
- 10:25 Development of a LAMP portable assay to detect two quarantined pathogens of apple fruit David Enicks, "WSU TFREC"
- 10:30 A reliable and accurate method of qRT-PCR for plant gene expression pattern analysis — Melody Saltzgiver, USDA ARS TFRL
- 10:40 Q&A

NEW AG TECHNOLOGY

- 1:30 Cellulose Nanocrystals to Mitigate Fruit Sunburn in Apple Brent Arnoldussen, WSU
- 1:35 Field evaluation of vibratory mechanical harvesting of cider apples: fruit removal efficiency and damage rate — Xin Zhang, WSU
- 1:40 A scaled-up solid set canopy delivery system for spray application in a high-density apple orchard. Rajeev Sinha, WSU
- 1:45 Q&A

TREE FRUIT BREEDING

	Identification of elite sources of fire blight resistance in apple — Sarah Kostick, WSU TFREC
2:00	Overview of the re-launched PNW sweet cherry breeding program — <i>Per McCord, WSU-IAREC</i>
2:05	RosBREED 2: The Home Stretch — <i>Jim McFerson, WSU</i>
2:10	Genome Database for Rosaceae — Jim McFerson, WSU
2:15	Q&A

Thank you.

Dear WA State Tree Fruit Association, Growers and Packers,

We applaud you for another fruitful year. From the orchards to the pack houses, the AgroFresh team is proud to have worked beside you for nearly 20 years. We are honored to be a part of this community and to bring you innovative solutions for your challenges.

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Research News Flash — Tuesday, December 4 Convention Center, Rooms G&F

SOIL & ROOTSTOCK INTERACTIONS

- 2:25 Apple Rootstock Technologies for Curbing Fire Blight Losses Gennaro Fazio, USDA ARS and Cornell University
- 2:30 Rootstock genotype succession influences rhizosphere and endophyte microbial community. *Christopher Van Horn, USDA-ARS*
- 2:35 Q&A

PESTS MANAGEMENT

2:45 Do You want to Catch A LOT MORE Codling Moth? — Alan Knight, USDA-ARS 2:50Biological control of the brown marmorated stink bug in eastern Washington — Joshua Milnes, WSU 2:55 Horticultural oil based thermotherapy for Pear psylla management -Haitham Y. Bahlol, WSU 3:00 Integrating Control Tactics For Pear Pest Management — Chris Strohm, "WSU TFREC" 3:05 The Risk of Establishment of Grapholita molesta (Oriental Fruit Moth) in Washington State — Tewodros Wakie, USDA-ARS 3:10 County Pest Board Activities — Michael Bush, Yakima County Horticultural Pest & Disease Board 3:15 Q&A

POLLEN & POLLINATION

3:25	Electrostatic spray pollination in sweet cherry — <i>Katie Taylor, WSU-IAREC</i>
3:30	Pollen variability among sweet cherry cultivars — <i>Katie Taylor, WSU–IAREC</i>
3:35	Blue orchard bee pollination of tree fruit — <i>Natalie Boyle, "USDA-ARS PIRU"</i>
3:40	Q&A





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