



DEEP ROOTS | NEW STRATEGIES

innovative thinking for today's challenges

119th Annual Meeting

Presented by



**Orchard
Robotics**

& NW Hort Expo

KENNEWICK, WASHINGTON

DECEMBER 4, 5 & 6, 2023



**Washington State
Tree Fruit Association**

NW Hort Expo



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WSTFA Annual Meeting & NW Hort Expo Program Guide

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2023 WSTFA Annual Meeting Committee Chair* Page 4

*WSTFA Annual Meeting Planning Committee,
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MEETING ETIQUETTE

*Cell phones must be turned off or on silent mode 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.

Welcome to Kennewick

The Washington State Tree Fruit Association is proud to host the 119th Annual Meeting and NW Hort Expo from Dec. 4–6. The meeting this year will take place at the Three Rivers Convention Center in Kennewick, Washington. It is hard to believe, but the last time we had the opportunity to gather for this event in the Tri-Cities was in 2017.

The WSTFA staff, annual meeting planning committee and volunteers have been meeting regularly since March to prepare for this gathering. We are all excited to present the sessions we've been working on centered around this year's theme: "Deep Roots, New Strategies: Innovative Thinking for Today's Challenges." I would like to offer my appreciation and gratitude for the combined efforts of everyone involved for pulling together and making this meeting possible.

People who make their living in agriculture know that every year is different. Inconsistency has certainly been consistent over the past several years, to say the least. Adapting to factors that are out of our control is an ongoing part of working in this business, but we are committed to the land and seeing the job through, even when our plans get turned sideways. The practice of being a tree fruit farmer is one that is deeply rooted, both in the agricultural practices used by farmers every day, but also in the expensive investment undeniably connected to the ground being farmed. When new challenges are thrown our way, we can't simply fold up our operation like a laptop and take it with us.

It takes new strategies and innovative thinking to adapt to the many challenges producers are facing. From difficult markets, extreme weather and rising costs to burdensome regulation and labor uncertainty, even the best producers are finding it more difficult to sustain profitability in this business environment. With a deep-rooted and perseverance-driven mindset, the tree fruit industry has always been in a constant evolution of practices to meet the challenges of today for tomorrow's success.

Our keynote speaker will offer us a high-level look at global market events that affect agriculture worldwide. David Magaña is a vice president and senior analyst for Rabobank's RaboResearch Food and Agribusiness group. Based in California, Magaña is responsible for covering and analyzing the U.S. and North American fresh fruit, vegetable and tree nut industries. He has a strong background in agriculture and works together with an international team to collect key insights into commodity markets, conduct in-depth analysis of the factors that drive sector success or failure and examine the megatrends that ultimately influence clients' business strategies.

Staying consistent with this year's theme, the Batjer Address will



Marty Olsen

*2023 WSTFA Annual Meeting
Committee Chair*



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be given by David Granatstein, professor emeritus at Washington State University. Granatstein will look back at the evolution of sustainability in the food system over the course of his professional career and how the tree fruit industry has participated.

As always, the conference will include sessions that cover a variety of topics, from profitability, climate and new technology to horticulture, organics and workforce issues. We'll also take a deep dive into pear issues with a dedicated session on Tuesday. Many of the topics from these sessions will also be available in a dedicated all-day Spanish session that takes place Tuesday, Dec. 5. Pesticide credits will be available on Monday and Tuesday. As always, there's also more to see and learn in the trade show held throughout the meeting.

Winter weather has been known to cause last-minute changes to people's plans, therefore we ask you to check for the most up-to-date version of the agenda on the WSTFA annual meeting app, which can be downloaded at wstfa.org. We encourage you to take advantage of the app as it allows us to send you notifications of updated information or schedule changes and gives you the ability to provide us feedback on the event.

Lastly, I would like to thank all the sponsors for their financial contributions that help make this convention a success. There are certain people we only get to see once a year, and platforms like this one let us reconnect with those from outside our home base. We all share in the benefit when we come together in collaboration and support of one another. This spirit of teamwork within our industry is something that we can all be proud of and must strive to carry on, as the results have helped us all to improve over the years. On behalf of the entire WSTFA team, we look forward to seeing everyone this December in Kennewick.

Marty Olsen
2023 WSTFA Annual Meeting Committee Chair

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.

WSTFA STAFF

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Ranie Haas, Director of Regulatory & Industry Affairs
Tim Kovis, Director of Communications and Events
Jacqui Gordon Nuñez, Director of Training, Education & Member Services

Joanne Rouse, Education & Member Services Assistant
Brock Williams, Data Analyst
Emily Allwardt, Office Manager
Karla Flores-Curiel, Data Assistant



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

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Washington State Tree Fruit Association Annual Meeting & NW Hort Expo

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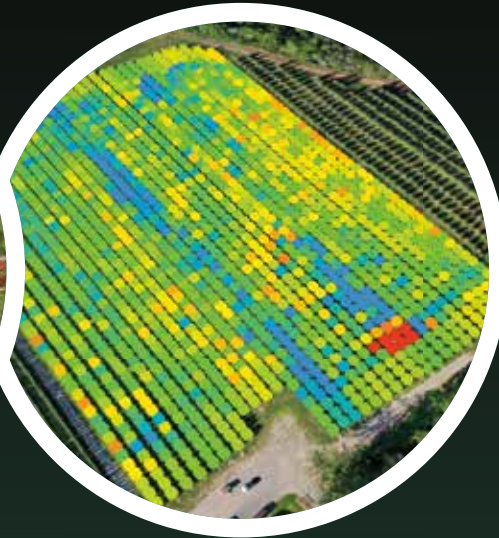
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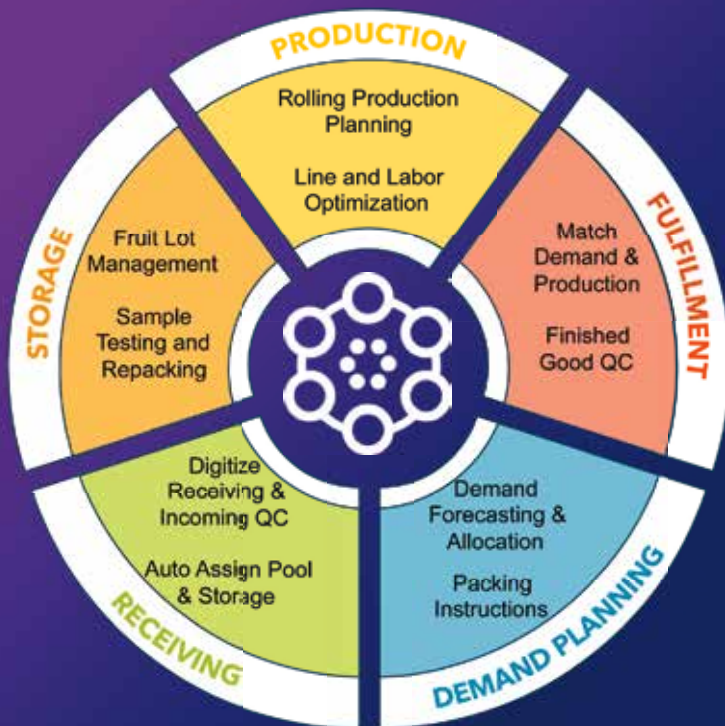
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NW Hort Expo

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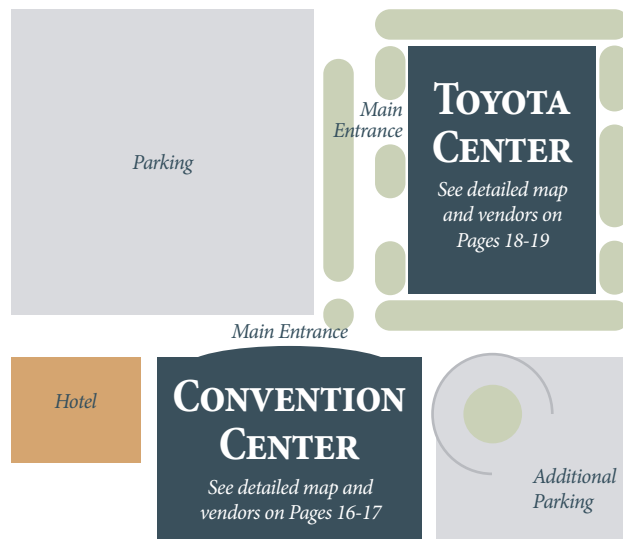


NW HORT EXPO EVENT SCHEDULE

MONDAY DECEMBER 4th

8 a.m. - 5 p.m.	WSTFA meetings – Convention Center
9 a.m. - 6 p.m.	NW Hort Expo open to the public – Toyota Center & Convention Center
10 a.m. - 11 a.m.	Apple & Cherry Mildew 1 pest credit English / Spanish – Toyota Center Level III (see Page 20)
11 a.m. - 2 p.m.	Pinion Concessions open – Toyota Center Level II
11 a.m. - 2 p.m.	Pom Club Axe Throw – Toyota Center Level II
11 a.m. - 2 p.m.	Sponsored Cider & Beer – Toyota Center Level II
2 p.m. - 3 p.m.	Psylla Biology & Management 1 pest credit English / Spanish – Toyota Center Level III (see Page 20)
2 p.m. - 6 p.m.	Happy Hour – Toyota Center Level I & Convention Center

Three Rivers Convention Center and Toyota Center complex



TUESDAY DECEMBER 5th

8 a.m. - 5 p.m.	WSTFA meetings – Convention Center
9 a.m. - 6 p.m.	NW Hort Expo open to the public – Toyota Center & Convention Center
10 a.m. - 11 a.m.	Codling Moth Management 1 pest credit English / Spanish – Toyota Center Level III (see Page 20)
11 a.m. - 2 p.m.	Pinion Concessions open – Toyota Center Level II
11 a.m. - 2 p.m.	NCW Fieldmans Axe Throw – Toyota Center Level II
11 a.m. - 2 p.m.	Sponsored Cider & Beer – Toyota Center Level II
2 p.m. - 3 p.m.	Fire Blight Management 1 pest credit English / Spanish – Toyota Center Level III (see Page 20)
2 p.m. - 6 p.m.	Happy Hour – Toyota Center Level I & Convention Center

WEDNESDAY DECEMBER 6th

9:00 a.m. - 1 p.m.	WSTFA meetings – Convention Center
9 a.m. - 12 noon	NW Hort Expo open to the public – Toyota Center & Convention Center

NW Hort Expo

Three Rivers Convention Center



VENDOR	BOOTH
AEF Global Biopesticides	325
Aerobotics US Inc.	Sponsor
Ag West	242
AgBiome	327
AgCode Inc.	153
AgriPhage- Fire Blight	307
AgroFresh	214
AgWeatherNet/PNASH	T3
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Antles Pollen	305
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CLA (CliftonLarsonAllen LLP)	331
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Cultiva	202
DECCO US	234
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Dig Corp	211
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G.S. Long Co	216
Gilbert Orchards	Sponsor
Good Fruit Grower	225
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Toyota
Center

NW Hort Expo



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NW HORT EXPO 2023 WSDA PESTICIDE CREDITS

MONDAY DECEMBER 4th

APPLE & CHERRY MILDEW

MONDAY 10 A.M. – 11 A.M.

1 pest credit English /Spanish

Moderator: Juan Ojeda, Northwest Wholesale

Location: Toyota Center Level III

10:00 Efficacy of conventional and organic materials against apple powdery mildew – Dr. Achour Amiri, WSU

10:20 Theia fungicide for control of Powdery Mildew – Lisa Malm, AgBiome

10:40 Innovations for powdery mildew control with Zayin – Anthony Faretta & Sarah Hallyburton, GroPro

PSYLLA BIOLOGY & MANAGEMENT

MONDAY 2 P.M. – 3 P.M.

1 pest credit English /Spanish

Moderator: Chris Strom, Northwest Wholesale

Location: Toyota Center Level III

2:00 Biology of pear psylla in relation to management decisions – Rodney Cooper, USDA

2:20 Rimon® 0.83EC, Dimilin® 2L, and Assail® 30SC – Kendall Johnson PH.D., UPL

2:40 Centaur, Bexar – Aaron Gale, Nichino

TUESDAY DECEMBER 5th

CODLING MOTH MANAGEMENT AND EMERGING PEST

TUESDAY 10 A.M. – 11 A.M.

1 pest credit English /Spanish

Moderator: Tyson McCallum, Willow Drive Nursery

Location: Toyota Center Level III

10:00 How point sources influence success of pheromone mating disruption programs – Don Thomsom, Pacific Biocontrol

10:30 Altacor® Evo insect control, Exirel insect control – Kirk Sager, FMC

10:45 Emerging Plant Pest – Cassie Cichorz, WSDA

FIRE BLIGHT

TUESDAY 2 P.M. – 3 P.M.

1 pest credit English /Spanish

Moderator: Brent Etzkorn, Aqua-Yield

Location: Toyota Center Level III

2:00 Staying ahead of shoot blight – Tianna DuPont, WSU

2:30 AgriPhage-Fire Blight – Ryan Benson, AgriPhage

2:45 Serenade OPTI and Serenade ASO – Sarah Mills, Bayer

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- Geneva® 'G.41
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- Vineland 1

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- Krymsk® 6

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Washington State Tree Fruit Association 119th Annual Meeting *Presented By Orchard Robotics*

MONDAY

8:00 **DEEP ROOTS | NEW STRATEGIES**
 9:00 **INNOVATIVE THINKING FOR TODAY'S CHALLENGES**
 8:00 a.m. – 12:00 p.m.
 10:00 Three Rivers Convention Center, Ballrooms A & C
 11:00 See Page 24

Noon *WSTFA Leadership Luncheon, 12:00 p.m. – 1:00 p.m.,
 Three Rivers Convention Center, Meeting Rooms C & D*

1:00 **PROFITABILITY**
 1:30 p.m. – 5:00 p.m.
 Three Rivers Convention Center,
 Ballrooms A & C
 See Page 28

2:00 **COMMUNICATING SUCCESS**
 2:00 p.m. – 5:00 p.m.
 Three Rivers Convention
 Center, Meeting Rooms C & D
 See Page 28

3:00 **RESEARCH NEWS FLASH**
 1:30 p.m. – 5:00 p.m.
 Three Rivers Convention
 Center, Ballroom B
 See Pages 30–38

4:00

5:00

TUESDAY

WAEF Alumni Breakfast, 7:00 a.m.

8:00 **FACING TODAY'S TECHNOLOGY**
 9:00 **CHALLENGES AND BUILDING**
 10:00 **FOR TOMORROW'S SUCCESS**
 8:00 a.m. – 12:00 p.m.
 11:00 Three Rivers Convention Center,
 Ballroom B See Page 40

Noon

1:00 **UNDERGROUND**
 2:00 **HORTICULTURE**
 8:00 a.m. – 12:00 p.m.
 Three Rivers Convention
 Center, Ballroom D See Page 42

3:00 **ABOVE GROUND HORT**
 1:30 p.m. – 5:00 p.m.
 Three Rivers Convention Center,
 Ballroom D See Page 46

4:00 **CLIMATE**
 1:30 p.m. – 3:00 p.m.
 Three Rivers Convention
 Center, Ballroom B See Page 46

5:00

Evening *WSTFA Banquet, 6:00 p.m. – 9:00 p.m.
 Three Rivers Convention Center Ballroom B*

WEDNESDAY

8:00 **ORGANICS**
 8:45 a.m. – 12:00 p.m.
 10:00 Three Rivers Convention Center,
 Ballroom B See Page 48

Noon

1:00 **WORKFORCE**
 8:30 a.m. – 12:00 p.m.
 Three Rivers Convention
 Center, Meeting Rooms A-D See Page 48

2:00 **WA-64**
 12:30 p.m. – 2 p.m.
 Three Rivers Convention Center,
 Ballroom B See Page 50

MONDAY

EARLY PACKET PICK-UP HOURS

Sunday: 2:00 p.m. – 6:00 p.m.

Lobby of the Three Rivers
 Convention Center

REGISTRATION HOURS

Monday & Tuesday:
 6:30 a.m. – 5:00 p.m.

Wednesday: 7:30 a.m. – 12:00 p.m.

SPANISH SESSION REGISTRATION

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Tuesday: 6:30 a.m. – 9:00 a.m.

SPANISH LANGUAGE SESSION I

Tuesday: 8:00 a.m. – 12:00 p.m.

SPANISH LANGUAGE SESSION II

Tuesday: 1:30 p.m. – 5:00 p.m.

Three Rivers Convention Center,
 Ballrooms A & C

See Page 44

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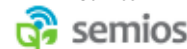
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DEEP ROOTS | NEW STRATEGIES

INNOVATIVE THINKING FOR TODAY'S CHALLENGES

8:00 A.M. – 12:00 P.M.

Session Sponsor: Terrantic

Session Manager: Marty Olsen, Olsen Brothers Ranches,
Annual Meeting Chair

Location: Three Rivers Convention Center, Ballrooms A & C

8:00 **Welcome** – Marty Olsen, 2023 Annual Meeting Chairman

8:15 **WSTFA Update** – Jon DeVaney, Washington State Tree Fruit
Association

8:40 **Remarks from Sponsor**

8:45 **NHC Update** – Mark Powers, Northwest Horticultural Council

9:05 **USApple Update** – Diane Kurrle, U.S. Apple Association

9:20 **Tree Top Update** – Craig Green, President, Tree Top Inc.

9:35 **Break**

9:45 **Remarks from Keynote Speaker Sponsor** – The Northwest Seaport
Alliance

9:50 **Keynote** – David Magaña, Robobank

10:55 **Sponsor Remarks**

11:00 **42nd Batjer Address: Sustainability is Not the Answer, It's the
Question** – David Granatstein, WSU TFREC

WSTFA LEADERSHIP LUNCHEON

12:00 P.M. – 1:00 P.M.

Separately ticketed event

Host: Jon DeVaney, President, Washington State Tree Fruit Association

Guest Speaker: Senator Mark Mullet, LD-5

Location: Three Rivers Convention Center, Meeting Rooms C & D

BOARD & COMMISSION NOMINATIONS

1:15 P.M.

Location: Three Rivers Convention Center, Ballrooms A & C



1980 - 2023

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A lot changes from year to year in our industry,
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PROFITABILITY

1:30 P.M. – 5 P.M.

Session Sponsor: AgWest Farm Credit

Session Manager: Jeff Baldwin, Sage Fruit, Annual Meeting Chair & Jordan Matson, Matson Fruit Company

Location: Three Rivers Convention Center, Ballrooms A & C

1:30 **Welcome** – Jeff Baldwin, Sage Fruit Company, & Jordan Matson, Matson Fruit

1:45 **Economics of the Tree Fruit Industry** – AgWest Farm Credit

2:15 **What Fruit is Profitable? — Marketer's Perspective**

2:45 **Grower Panel — What Makes Me Money?**

COMMUNICATING SUCCESS

2:00 P.M. – 5:00 P.M.

Location: Three Rivers Convention Center, Meeting Rooms C & D

2:00 **Orchard Robotics — AI-powered cameras that know what you grow** – Join Orchard Robotics CEO Charlie Wu in hearing about the technology behind their industry-leading Orchard Vision System that gathers precision data – from fruit count, size, yield, color, to blossom density, bud counts, tree vigor, tree trunk size, and more! See how AI-powered camera systems are helping today's growers optimize fruit yield & quality, and helping packhouses drive efficiency through yield, size, and color estimates.

2:45 **Terrantic — Digitizing Your Packhouse & Beyond** – Join Terrantic to learn about how to modernize and digitize your packhouse operations. We are the only operational data solution specifically designed for the packhouse industry that spans the entire breadth from digitizing receiving & optimizing storage to optimizing production & shipping. We also enable sales desks to improve grower accounting, optimize demand forecasting and improve packhouse planning. Even if you are a grower, join us and learn about the latest technology for integrating data and making your data usable!

3:30 **PwC – Family continuity can mean different things for each family, so how do family businesses move from generation to generation successfully? Gain an understanding of important frameworks that can aid in decisions around staying together, selling a business or transformation.**

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SUSTAINABILITY

Session Manager: Marcella Galeni, WSU

Location: Three Rivers Convention Center, Ballroom B

1:15-1:20 Introduction and housekeeping

TREE FRUIT BREEDING

1:20-1:25 Utilizing a non-destructive approach to improve uniformity of Phase 2 fruit samples in the WSU Apple Breeding Program – India Cain, WSU-TFREC

1:25-1:30 Advanced Selection Screening Protocol in the WSU apple breeding program Phase 3 – Melissa Garcia Medel, Washington Tree Fruit Research Commission

1:30-1:35 Performance of WA 64 in the WSU Apple Breeding Program phase 3 plantings – Manoella Mendoza, Washington Tree Fruit Research Commission

1:35-1:40 Consumer preference testing of the WA 64 apple – Kate Evans, WSU-TFREC

1:40-1:45 Questions

PLANT PATHOLOGY & SAFETY

1:45-1:50 Cas12a-based diagnosis of X-disease phytoplasma infecting cherry 'Prunus avium' in Washington – Amit Kumar Kesharwani, WSU-IAREC

1:50-1:55 Assessing the effectiveness of sanitizer disinfection in apple packing line dump tank operations – Meijun Zhu, WSU, School of Food Science

1:55-2:00 Bacterial canker of sweet cherry in Washington: Overview of the disease, copper, and antibiotic resistance situation – Sheersa Manna, Washington State University

2:00-2:05 Rapid detection of four major fungal pathogens of pome fruit – Arild Arifin, WSU-TFREC

2:05-2:10 Characterization of three new fungal species causing postharvest decay in the Pacific Northwest – Joseph K. Mellow, WSU-TFREC

2:10-2:15 Characterization of fungicide sensitivity in several *Penicillium* species causing blue mold of pome fruits in Pacific Northwest – Madan Pandey, WSU, Department of Pathology

2:15-2:20 X-disease phytoplasma patchiness within cherry trees – Laura Flandermeyer, WSU, Department of Entomology

2:20-2:25 Ozone application reduces listeria population on Fuji apples during storage – David González, Washington Tree Fruit Research Commission

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2:25-2:30 Questions

PEST MANAGEMENT

2:30-2:35 **Scouting Network: Implementing Biologically Based Pear IPM** – Jose Ricardo Lima Pinto, WSU-TFREC

2:35-2:40 **Evaluating lacewing releases for apple aphid control** – Rebecca Schmidt-Jeffris, USDA-ARS

2:40-2:45 **Epigeal predators in Eastern Washington cherry orchards** – Peter Smytheman, WSU-TFREC

2:45-2:50 **From pest to predator: moving earwigs from stone fruit to pome fruit enhances control of aphids and pear psylla** – Aldo Hanel, WSU-TFREC

2:50-2:55 **Orchard Oddities: From PCR to Parasitoids, the Cherry on Top of Leafhopper Research** – Cesar A. Reyes Corral, WSU-TFREC

2:55-3:00 **Quest for the Mountain Leafhopper with a little help from Citizen Scientists** – Adrian Marshall, USDA-ARS, Temperate Tree Fruit and Vegetable Research Unit

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3:00-3:05 **Pesticide Residue on Apple & Cherries 2023** – Gerardo Garcia, Washington Tree Fruit Research Commission

3:05-3:10 **Exploring usage of novel viruses to control the codling moth** – William Walker, USDA-ARS, Temperate Tree Fruit and Vegetable Research Unit

3:10-3:15 **Questions**

NEW AG TECHNOLOGY

3:15-3:20 **Washington Tree Fruit Research Commission Technology Initiatives** – Ines Hanrahan, Washington Tree Fruit Research Commission

3:20-3:25 **Automated pruning strategy using crop-load estimation** – Dawood Ahmed, WSU-IAREC

3:25-3:30 **AI-Based Image Analytics for Fruit Quality** – Heidi Hargarten, USDA-ARS TFRL

3:30-3:35 **Dynamically Refined 3D Modelling of Planar-Canopy Sweet Cherry Trees for Automated Pruning** – Martin Churuvija, WSU, Center for Precision & Automated Agricultural Systems

3:35-3:40 **Multi sensor-based autonomous system for variable rate Nitrogen application in orchards** – Achyut Paudel, WSU, Center for Precision & Automated Agricultural Systems

3:40-3:45 **Translating open-field weather to in-orchard conditions: A multi-site modelling approach** – Karisma Yumnam, WSU, Center for Precision & Automated Agricultural Systems

3:45-3:50 **Assessment of Internet of Things based frost monitoring network in sweet cherry orchard** – Srikanth Gorthi, WSU, Center for Precision & Automated Agricultural Systems

3:50-3:55 **Effectiveness of overhead sprinklers, netting, and fogging in mitigating heat stress on apple fruit quality, pre- and post-harvest** – Basavaraj Amogi, WSU AgWeatherNet

3:55-4:00 **Questions**

POSTHARVEST

4:00-4:05 **Evaluating Postharvest Storage Conditions in Four Washington Sweet Cherry Cultivars** – Madeline Zwergel, WSU-TFREC

4:05-4:10 **Modeling textural parameters on sweet cherries using hyperspectral images** – Rene Mogollon, WSU-TFREC

4:10-4:15 **Organic Gala apple: Fruit quality during the 2022/2023 long-term storage season** – Sadat Amankona, WSU-TFREC

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4:15-4:20 Spectral characterization of sunburn in D'anjou pear – *Oswaldo Gonzalez, WSU-TFREC*

EXTENSION

4:20-4:25 WA Tree Fruit Research Commission 2023 Highlights – *Paige Beuhler, Washington Tree Fruit Research Commission*

ECONOMICS

4:25-4:30 Economic viability of robotic fruit harvesters to reduce large seasonal labor demands – *Karina Gallardo, Washington State University*

4:30-4:35 Questions

SOIL & ROOTSTOCK INTERACTIONS

4:35-4:40 Fruitful Allies: Investigating Apple Rootstock and AMF (Arbuscular Mycorrhizal Fungi) Interactions – *Chris Cook, WSU-TFREC*

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4:40-4:45 **Metatranscriptomic analysis reveals insight into plant-microbiome response to biochar-amended organic soil –** *Seanna Hewitt, Washington State University*

POLLEN & POLLINATION

4:45-4:50 **Assessing the role of intra-cluster floral position on apple fruit quality –** *Sarah Gruntmeir, Washington State University*

4:50-4:55 **Post-bloom thinning in sweet cherry –** *Alfredo Reyes, Washington State University*

TREE FRUIT PHYSIOLOGY

4:55-5:00 **Chemical Thinning For Pears and Apples –** *Denver Pagat, Washington Tree Fruit Research Commission*

5:00-5:05 **Mitigating Excessive Vigor in Apple Trees Utilizing Plant Growth Regulators –** *Juan Munigua, WSU-IAREC*

5:05-5:10 **Questions**

5:10-5:15 **Final remarks**



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FACING TODAY'S TECHNOLOGY CHALLENGES AND

BUILDING FOR TOMORROW'S SUCCESS 8:00 A.M. – 12:00 P.M.

Session Sponsor: Larson Gross

Session Manager: Jeff Cleveringa, Columbia Fruit Packers

Location: Three Rivers Convention Center, Ballroom B

8:00 **Introduction**

8:10 **Technology Roadmap** – Ines Hanrahan, WTFRC

8:25 **Today's Challenges and Solutions / Irrigation Solutions Panel** –
Moderator: Steve Mantle, innov8.ag – **What Are Growers Trying**

9:05 **Sprayer Technology** – Gwen Hoheisel, WSU; Peter Frans de Jong,
Wageningen University

9:30 **Technology We are Trying and Why? Panel** – Moderator: Ines
Hanrahan, WTFRC – **Vision Based Systems for Crop Load and
Fruit Thinning** — Matt Miles, Allan Bros; **Farm Data Using
Tremble How Are We Gathering and Using Data** – Steve Caudill,
Columbia Fruit Packers; **Labor Tracking by Task and Block, Getting
Accurate Bin Accounting by Block** – Cody Bishop, Price Fruit and
Cold Storage; **Sprayers That Are Making a Difference and a Plan
to Get People Out of the Spraying Process** – Rob Blakey/Hannah
Wolters, Stemilt Growers

10:15 **AgAID Institute: Update and What They Are Doing** – Ananth
Kalyanaraman, WSU

10:25 **Orchard of the Future Update** – Ines Hanrahan, WTFRC

10:35 **Harvest Automation Long Term Plan From WTFRC Point Of View** –
Jeff Cleveringa, Columbia Fruit Packers

10:45 **WSDA: Their Engagement of Industry and Formation of Partnerships
Going Forward** – Julia Terlinchamp, WSDA

10:55 **Towards Harvest Automation Panel** – Moderator: Keith Veselka,
NWFM, LLC
Automated Ag: Future Plans for Cyclone Picking Assist;
FFR: Making a Pivot Towards Automated Pruning
in High Density Orchards;
Tevel: Drone Harvest Update;
advanced.farm: Robotic Apple Picking and 2023 Season Update;
Renfu Lu, MSU: Apple Picking, Sorting, Bin Filling;
Peter Frans de Jong, Next Fruit 4.0: Pear Harvesting Update



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Session Sponsor: AgroFresh

Session Manager: Molly McIlquham, WSU

Location: Three Rivers Convention Center, Ballroom D

- 8:00 Introduction – Molly McIlquham, WSU
- 8:05 Soil Health Indicators in Tree Fruit Systems – Tianna DuPont, WSU
- 8:35 Soil Health in Perennial Systems – Devin Rippner, USDA
- 9:05 Soil Microbial Inoculants for Crop Production: There is A long way to go – Mark Mazzola, USDA-ARS
- 9:35 Break
- 9:45 Toward A Holistic View of Orchard Ecosystem Dynamics: A Comprehensive Review of the Multiple Factors Governing Development or Suppression of Apple Replant Disease – Tracey Somera, USDA
- 10:15 Nematodes in Tree Fruit – Tom Forge, BC Summerland
- 10:45 Producer Panel – Moderator Molly McIlquham, WSU; Panelists: Jonathan Cox, Double Diamond Fruit; Casey Hubs, Farmland Management Services; Greg Newman, NWFEM



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Session Sponsor: FirstFruit Farms

Session Managers: Jesus Heredia, GS Long Company;
Lorena Rodriguez, WSDA

Location: Three Rivers Convention Center, Ballrooms A & C

8:00 **Bienvenida e Introducción/ Welcome & Introduction** – Jesus Heredia,
GS Long Company & Lorena Rodriguez, WSDA

8:15 **Calibración de equipo de aplicación de pesticidas y uso de nuevas tecnologías (créditos de pesticidas disponibles)/ Calibration of Pesticide Application Equipment & use of new technologies (pesticide credit eligible)** – Jeff Robison, WSDA

9:05 **Sistemas de guarda prolongada para distintas variedades de cereza/ Post harvest systems for extended storage in sweet cherries** – Carolina Torres, WSU

9:55 **Receso/Break**

10:05 **Reglas de la exposición al calor & humo por incendios forestales (créditos de pesticidas disponibles)/ Outdoor Heat Exposure & Wildfire Smoke rules (pesticide credit eligible)** – Natali Ramirez, LNI

10:55 **Premio al Liderazgo Latino/Latino Leadership Award** – Washington State Tree Fruit Association

11:25 **Encuesta al público/ Advancing Knowledge Audience Survey** – Jean Dibble, Good Fruit Grower

11:25 **Bulletins Live! Dos: Que es y como consultarlo/ Bulletins Live! Two – Flor Servin, WSDA**

12:00 **COMIDA/ LUNCH**

Session Sponsor: Stemilt Growers

Session Managers: Jesus Heredia, G.S. Long Company;
Lorena Rodriguez, WSDA

Location: Three Rivers Convention Center, Ballrooms A & C

1:30 **Inteligencia emocional en la agricultura/ Emotional Intelligence in Agriculture** – Ofelio Borges, WSDA

2:20 **Retos de los trabajadores migrantes en la agricultura/ Migrant Seasonal Farmworkers in Washington** – Bertha Clayton, ESD

3:10 **Receso/Break**

3:20 **¿Por qué están enfermos mis arboles? Diagnóstico y prevención de problemas poco comunes en los árboles (créditos de pesticidas disponibles)/ Why are my trees sick? Diagnosing and preventing less common orchard problems (pesticide credit eligible)** – Tianna DuPont, WSU

4:10 **Soluciones de Seguridad con Pesticidas (créditos de pesticidas disponibles)/ Pesticide Safety Solutions (pesticide credit eligible)** – Pablo Palmandez, Pacific Northwest Agricultural Safety and Health

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ABOVE GROUND HORT 1:30 P.M. – 5:00 P.M.

Session Sponsor: Corteva

Session Manager: Matt Whiting, WSU

Location: Three Rivers Convention Center, Ballroom D

- 1:30 Crop Load Management in Apples/PACMAN SCRI Project – Tory Schmidt, WTFRC
- 2:00 Preharvest Conditions Affecting Fruit Quality – Suzanne Bishop, Allan Bros. Fruit
- 2:30 Preharvest Conditions on Fruit Quality and Storability – Carolina Torres, WSU
- 3:00 Genes Related to Harvest Timing in Apple – Loren Honaas, USDA-ARS
- 3:30 Plant Growth Regulator Effects on Fruit Quality/Maturity – Poliana Francesetta, Valent BioSciences
- 4:00 Weather-guided apple heat stress mitigation – Lav Khot, WSU

CLIMATE 1:30 P.M. – 3:00 P.M.

Session Manager: Chad Kruger, WSU

Location: Three Rivers Convention Center, Ballroom B

- 1:30 Introduce LCA and NHC Climate Change Subcommittee – Dan Langager, NHC
- 1:35 NHC CCS, Orchard Data/Records Growers Will Need for Survey, Importance of Grower Participation – Brent Milne, McDougall & Sons
- 1:45 WTFRC Funding, Grower and Researcher Perspective – Ines Hanrahan, WTFRC
- 1:55 LCA Metrics / Methodology / Data Collection – Georgine Yorgey, WSU
- 2:05 WSTFA Role and How LCA Will Benefit Industry – Jon DeVaney, WSTFA
- 2:10 Market Forces on Sustainability and How to Meet New Standards and Monetize Their Carbon Data – Panel
- 2:15 Q&A

PEARS 1:30 P.M. – 5:00 P.M.

Session Manager: Ray Smitten, Blue Bird, Inc

Location: Three Rivers Convention Center, Meeting Rooms A-D

- 1:30 Intro to the Pear Afternoon
- 1:40 Psylla Tactics: Successes Targeting Phenology Using Thresholds and Scouting – Grower and Researcher Panel

- 2:30 Cost Estimates of Producing Fresh Market Pears – Karina Gallardo, WSU
- 3:00 Practical Cost Analysis of Pear Replanting – Brandon Cobos, CFO Blue Bird, Inc
- 3:20 Pear Orchard Renewal: Successes and Mistakes. What Have We Learned – Grower Panel
- 4:00 Pear Bureau Update

WSTFA BANQUET 6:00 P.M. – 9:00 P.M.

Master of Ceremonies: Richard Olsen, Olsen Brothers Ranches

Banquet Sponsor: Good Fruit Grower

Hors d'Oeuvres Sponsor: Wilbur-Ellis

Location: Three Rivers Convention Center, Ballroom B

- 6:00 Reception
- 7:00 Dinner & Awards



ORGANICS

8:45 A.M. – 12:00 P.M.

Session Sponsor: Semios

Co-Session Managers: David Granatstein, WSU; Dan Langager, Northwest Horticultural Council

Location: Three Rivers Convention Center, Ballroom B

- 8:45 **Welcome** – Dan Langager, Northwest Horticultural Council
- 8:55 **Organic Tree Fruit Trends** – David Granatstein, WSU
- 9:10 **Organic Certification Updates and Opportunities** – Gwen Wyard, SOS; Brenda Book, WSDA
- 9:50 **Managing Fruit Quality and Decays in Organic Pome Fruit** – Carolina Torres, WSU; Achour Amiri, WSU
- 10:40 **Organic Marketing Panel: Challenges and Opportunities** – Tate Mathison, Stemilt Growers; Catherine Gipe-Stewart, Domex Superfresh Growers; Joel Hewitt, CMI Orchards
- 11:20 **Production Costs Update (Organic Honeycrisp & Gala)** – Karina Gallardo, WSU

WORKFORCE

8:30 A.M. – 12:00 P.M.

Session Sponsor: PGIM

Co-Session Managers: Samantha Mendoza, Douglas Fruit; Ranie Haas, Washington State Tree Fruit Association

Location: Three Rivers Convention Center, Meeting Rooms A-D

- 8:30 **Welcome and Introductions** – Ranie Haas, WSTFA
- 8:35 **Leadership & Education Development lightning round** – Agricultural Leadership Program; AgForestry; Central Washington University- Agribusiness, Ag-Tech; Walla Walla Community College- Ag Center of Excellence; Wenatchee Valley Community College- Hispanic Orchard Education Program; WSU- CAHNRS, Degrees and Interns; Yakima Valley Community College- Ag Program, BAS
- 9:50 **Health and well-being** – Mauricio Gomez, Lourdes Health; John Miller, Lourdes Health
- 10:20 **H-2A Updates** – Kate Tynan, Northwest Horticultural Council
- 11:00 **Smoke Rule: Permanent Rule Basic Requirements; Resources for training and more in-depth information** – Bradley Farrar, L&I
- 11:15 **Heat Rule** – Bradley Farrar, L&I, **Permanent Rule Basic Requirements; Resources for training and more in-depth information**
- 11:30 **Temporary Worker Housing** – Bradley Farrar, L&I, **Final Rule Update**
- 11:45 **Industry Panel** – Katherine Ryf Taiclet, Washington Fruit; Alfredo Jeronimo, Columbia Fruit Packers



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Session Sponsor: KeyBank

Session Manager: Ken Ballard, AgWest Farm Credit

Location: Three Rivers Convention Center, Ballroom D

- 9:00 Consumer Preferences and Trends, Varieties and Strains with Challenging Futures, Fruit Quality Needed to Remain Relevant – Steve Clement, Sage Fruit
- 9:20 Making It Work. Niche Inputs & Costs, Production Levels, etc. Personal Testimonial – Geoff Thornton, Independent Grower
- 9:40 Orchard Market Trends for Various Varieties, Strains, Planting Styles and Locations – Shane Hatch, AgWest Farm Credit
- 10:00 Break
- 10:10 Panel Discussion – Moderator: Jennifer Witherbee, Larson Gross; Mike Denklau, Dorset Ag; Steve Clement, Sage Fruit; Henry Smith, Roche Fruit

Session Manager: Ines Hanrahan, WTFRC

Location: Three Rivers Convention Center, Ballroom B

- 12:30 Introduction of WA 64 – Kate Evans, WSU
- 12:50 Timeline of the selection and release process – Jeremy Tamsen, WSU & Deah McGaughey, WSU
- 1:15 Open Forum for Industry Discussion – Panel – Moderator Ines Hanrahan, WTFRC; Panelist: Kate Evans, WSU; Deah McGaughey, WSU; Jeremy Tamsen, WSU; Scot Hulbert, WSU; & Cultivar Licensing Committee industry member (TBD)

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