



Our Choices



Shape Our Reality TOMORROW



115th Annual Meeting & NW Hort Expo • Wenatchee, Washington • December 9, 10 & 11, 2019

Welcome

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Willow Drive Nursery

See Us at Booth 109 in the Convention Center. WWW.WIIIOWdrive.com 3539 Road 5 NW, Ephrata, WA 98823 888 54-TREES • 509 787-1555 or individuals involved in today's tree fruit industry, there is an abundance of knowledge and opinions that are being shared between growers, warehouses and tree fruit experts. Our challenge is to evaluate this information and these opinions to decide which we will act on, and how. The choices that we make on a daily basis affect our long-term successes and failures.

There is much at stake as production and

them has a lasting effect on tomorrow.



Mark Hambelton WSTFA Annual Meeting Committee Chair

labor costs continue to rise, where one wrong choice can have lasting effects on the bottom line of our operations. The choices we have to make seem endless: whether we are in a situation of looking to prepare our orchards for automation, renewing an orchard, or simply updating our watering systems. But large or small, each of

Beginning this past spring, a core group of industry volunteers has met regularly, along with Washington State Tree Fruit Association employees, to steer this year's annual meeting in a direction that will address many of the choices we face. We have been collaborating with industry leaders in the hope of bringing knowledge to everyone, so that when difficult choices have to be made, we will be better prepared to evaluate our options and predict likely outcomes.

My goal for this year's annual meeting is that you will leave with new perspectives and confidence to help you to lead your operation in our current challenging times and set the groundwork for a prosperous future.

A key element in making choices today is preparing for what we think tomorrow will look like. Our keynote Batjer Address speaker this year is Andrew Busch, who is the former chief market intelligence officer for the U.S. Commodity Futures Trading Commission. Busch will bring his experience and insights into overall economic trends and how they will affect our industry. As he puts it, "simplifying complexity and chaos to inspire confidence in the future."

I think we have prepared a program that will present actionable information for your operation, and the confidence to make these choices now and for your future.

Mark Hambelton

2019 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.

2019 ANNUAL MEETING PLANNING COMMITTEE

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2019 ANNUAL MEETING SESSION MANAGERS

Achour Amiri, WSU Garret Bishop, G.S. Long Company Suzanne Bishop, Allan Brothers Inc. Faith Critzer, WSU Mike Doerr, Wilbur Ellis Tianna DuPont, WSU Extension Jacqui Gordon, WSTFA Ines Hanrahan, WTFRC Mark Hambelton, Double M Orchard, Planning Committee Chair Karen Lewis, WSU Extension Manoella Mendoza, WTFRC Bernardita Sallato, WSU-CAHNRS Francisco Sarmiento, Wenatchee Valley College Tory Schmidt, WTFRC Gary Snyder, C&O Nursery, Planning Committee Vice-Chair Carolina Torres, WSU Alix Whitener, FMC Corporation

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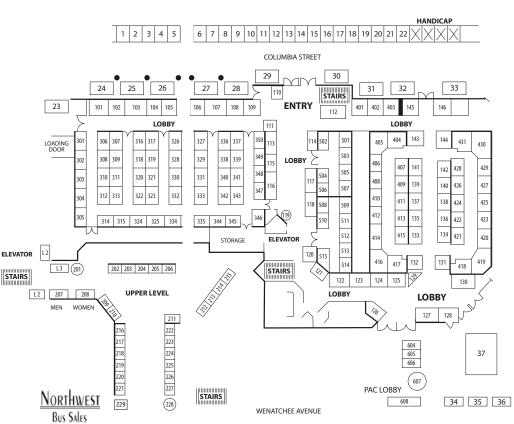
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WSTFA 115th Annual Meeting and NW Hort Expo

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. VENDOR BOOTH 2nd Sight Bio Science 104 A&B Packing Equipment Inc Acadian Seaplants 344 138 Accu-Label 310 AgCode 208 AgForestry Leadership Program 511 AgOtter / Insero 311 Agricultural Data Systems 408 AgroFresh 224 Agroplasma Inc. 411 AgroSource, Inc. 402 Air-O-Fan Products 346 Airstrike Bird Control, Inc. 401 406 Alpha Scents, Inc Amarillo/Wenatchee Wind 307 AmeriTrellis Engineered Steel Trellising 219 Antles Pollen Supplies, Inc. 124 ApRecs 212 Automated Ag Systems 306 Aweta Americas 103 Bailey Nursery 319 Barnel USA 302 **BBC Technologies** 144 Besseling North America 323 427 Better tripod Ladders **BIO GRO INC** 415 Biosafe Systems 425 Bird Gard 225 Bleyhl Co-Op 325 Blue Sky Hazelnuts / Sorbatto 409 Blueline Equipment & Manufacturing 316 Brandt's Fruit Trees, LLC 118 **Burrows Tractor** 101 C & O Nurserv 130 Cameron Nursery, LLC 133 Carrier Transport 318 Cascade Analytical, Inc. 431 Cascade Wind Machine Service 113 **Central Washington Equipment** 315 Central Washington Refrgeration 303 CERTIS USA 421 C-Gro 423 CLA 111 College of Agriculture, Human & Natural Resource Sciences 508 608 Compu-Tech, Inc. CopenHaven Farms Nursery 329 Corteva 141 CSI Chemical Corp 202 DACO Corporation 326 Data Pro Solutions 428 Davis Instruments 413 Decco US Post Harvest Inc. 210 Doubl-Kold 328 604 Draggoo Financial Drape Net North America 216 **EAGLE Certification Group** 223 Extenday USA 134 Firman Pollen Co., Inc. 334 Giro Pack, Inc. 416 GOOD FRUIT GROWER 206 Graphic Label LLC 107 338 Gripple, Inc. Growers League 512 GS Long 137 Guardian Ozone 340 H.F. Hauff Company, Inc. 125 Haley Manufacturing 339 Homchick Smith & Associates, P.L.L.C. 131 Hortau 114 i.farm 220 InSeason Ag Innovations, LLC 218 Irrigation Technology & Control 145 Jet Harvest Solution 110

TRADE SHOW HOURS



Shuttle pick up at Wenatchee Avenue Entrance

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WSTFA 115th Annual Meeting and NW Hort Expo

Schedule Highlights

MONDAY

8:00 9:00 10:00 11:00	OUR CHOICES TODAY SHAPE 8:00 a.m 12:00 p.m. Wenatchee Convention Center, C See Page 10			
Noon 1:00	WSTFA Leadership Luncheon, 1 Wenatchee Convention Center, C	*	*	
2:00 3:00 4:00 5:00	ECONOMICS OF THE INDUSTRY 1:30 p.m 5:00 p.m. Wenatchee Convention Center, Grand Apple Ballroom South See Page 11		RESEARCH NEWS FLASH 1:30 p.m. – 5:00 p.m. Wenatchee Convention Center, Grand Apple Ballroom North See Pages 30-34	

TUESDAY

WAEF Alumni Breakfast, 7:00 a.m., The Rivertop (top floor of The Wenatchee Coast Hotel)

8:00 9:00 10:00 11:00 Noon	FRUIT MATURITY AND PRECISION HARVEST MANAGEMENT 8:00 a.m 12:00 p.m. Wenatchee Convention Center, Grand Apple Ballroom North See Page 12		SOILS AND NUTRITION 8:00 a.m. – 12:00 p.m. Numerica Performing Arts Center See Page 14	 	SPANISH LANGUAGE SESSION 1 8:00 a.m 12:00 p.m. Wenatchee Convention Center, Grand Apple Ballroom South See Page 16	
1:00						
2:00	POLLINATION AND CROP LOAD MANAGEMENT 1:30 p.m. – 5:00 p.m.	•••••	TREE FRUIT PATHOLOGY 1:30 p.m. – 5:00 p.m. Numerica Performing Arts	 	Spanish Language Session 2 1:45 p.m. – 5:00 p.m.	
3:00	Wenatchee Convention Center,		Center	 	Wenatchee Convention Center,	
4:00	Grand Apple Ballroom North		See Page 22		Grand Apple Ballroom South	
5:00	See Page 24		Ţ		See Page 20	
Engening	WSTFA Banquet, 6:00 p.m. – 9 p.n Wenatchee Convention Center, Gra		ople Ballroom		REGISTRATION BAG SPONSO	R

WEDNESDAY

8:00	INVESTING IN IPM TODAY		WA38 COSMIC CRISP®
9:00	WILL HELP PROTECT CROPS		8:30 a.m. – 12:00 p.m.
10:00	FOR YEARS TO COME 8:00 a.m. – 12:00 p.m.	•••••	Wenatchee Convention Center, Grand Apple Ballroom North
	Wenatchee Convention Center,	•••••	
11:00	Grand Apple Ballroom South		See Page 26
Noon	See Page 26		



EARLY PACKET PICK-UP HOURS

Sponsored by: Banner Bank Sunday: 2:00 p.m. - 6:00 p.m.

Lobby of the Wenatchee Convention Center

ANNUAL MEETING **REGISTRATION HOURS**

Sponsored by ProTree Nursery, LLC

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

Wednesday: 7:30 a.m. - 12:00 p.m.

SPANISH SESSION REGISTRATION

Tuesday: 6:30 a.m. - 9:00 a.m.

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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.

Our Choices Today Shape Our Reality Tomorrow

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

Session Sponsor: AgroFresh

Session Manager: Mark Hambelton, Annual Meeting Chair Location: Wenatchee Convention Center, Grand Apple Ballroom South

- 8:00 Welcome & Introduction Mark Hambelton, Annual Meeting Chair & Sean Gilbert, WSTFA Chairman of the Board
- 8:15 WSTFA Update Jon DeVaney, President, Washington State Tree Fruit Association
- 8:45 U.S. Apple Association Update Jim Bair, President & CEO, US Apple Association
- 9:00 WTFRC Update Ines Hanrahan, Executive Director, WTFRC
- 9:30 **Technology in Tree Fruit** George Kantor, Senior Systems Scientist, Carnegie Mellon University
- 10:10 Remarks From Keynote Speaker Sponsor The Northwest Seaport Alliance
- 10:15 **40th Batjer Address –** Andrew Busch, CEO, Bering Productions Inc.
- 11:15 Marketers Panel Mike Taylor, Vice President Sales and Marketing, Stemilt Growers; Steve Lutz, Senior Vice President Insights and Innovation, Category Partners; and Chuck Zeutenhorst, General Manager, FirstFruits Marketing

WSTFA Leadership Luncheon

12:00 P.M. - 1:00 P.M.

Session Sponsor: Domex Superfresh Growers

Host: Jon DeVaney, President, Washington State Tree Fruit Association Guest Speaker: Representative Alex Ybarra

Location: Wenatchee Convention Center, Grand Apple Ballroom North

BOARD & COMMISSION NOMINATIONS

1:15 P.M.

Location: Wenatchee Convention Center, Grand Apple Ballroom South Board & Commission Nominations, WSDA

ECONOMICS OF THE INDUSTRY

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

Session Sponsors: Northwest Farm Credit Services Session Manager: Gary Snyder, C & O Nursery

Session Manager. Gury Snyuer, C & O Warsery

Location: Wenatchee Convention Center, Grand Apple Ballroom South

- 1:30 Northwest Farm Credit Economics of the Industry Ken Ballard, Vice President, Northwest Farm Credit Services
- 2:00 Updates on Washington Apple Production Costs Dr. Karina Gallardo, Associate Professor Extension Specialist, WSU
- 2:40 Real Time Labor Management: Panel Moderator, Alex Garcia, Director of Sales, FieldClock; Shelly Durfey, Office Manager; and Joe Britton, Orchard Foreman
- 3:20 Navigating the private equity discussion in Food and Agribusiness
- 4:10 Operating the Fruit Enterprise Following Unbridled Optimism and Irrational Exuberance — Playing to Win or Playing not to Lose? Panel– Moderator Tom Auvil, North American Plants; Travis Allan, Allan Brothers Inc.; and Don Gibson, Mount Adams Orchards

Research News Flash

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

Session Sponsors: Papé Material Handling Session Manager: Suzanne Bishop, Allan Brothers Location: Wenatchee Convention Center, Grand Apple Ballroom North

SCHEDULE AND DETAILS PAGES 30-34

Better Together

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WAEF ALUMNI BREAKFAST

7:00 A.M.

Sponsor: Washington Apple Education Foundation Host: Jennifer Witherbee, Washington Apple Education Foundation Location: The Rivertop (top floor of The Wenatchee Coast Hotel)

COMMUNICATING SUCCESS

9:30 A.M. - 11:00 A.M.

Location: Wenatchee Convention Center, Blossom Room

- 9:30 Semios Why you might need to rethink generalized codling moth models Presenter: Jordan Hazell - Semios Research Manager & Entomologist. Leveraging over two year's worth of granular data across nine Washington counties, Semios investigates why generalized codling moth models might not be working for all growers. We review how you can use your in-canopy data and real-time pest activity to create a model that is representative of your orchard's unique conditions for better management timing, and less damage.
- 10:00 FruitSpec FruitSpec provides accurate early season fruit yield estimation. Scanning the orchard at an early stage, (fruit size of ~1.5 inches), FruitSpec accurately (>90%) provide the number of fruit in the orchard in weight units and as heat-maps that map the distribution of fruit number along with the orchard.
- FRUIT MATURITY AND Precision Harvest Management

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

Concurrent Session Session Sponsor: Valent

Session Managers: Faith Critzer, Associate Professor & Produce Safety Extension Specialist, WSU; Ines Hanrahan, Executive Director, Washington Tree Fruit Research Commission Location: Wenatchee Convention Center, Grand Apple Ballroom North

- 8:00 Welcome and Introductions Ines Hanrahan, Executive Director, Washington Tree Fruit Research Commission
- 8:05 Fruit Maturing Management for Precision Harvest- Carolina Torres, Associate Professor, Endowed Chair in Postharvest Systems, WSU
- 8:35 Communications Between the Warehouse and Field: Panel Thomas Hale, Warehouse Manager, Gilbert Orchards; Aylin Moreno, Horticulturist-Fruit Quality Analyst, McDougall & Sons; and Juan Rodriguez, QC Receiving Manager, Stemilt Growers
- 9:25 Break
- 9:35 Influence of Growing Season Climate on Storage Capacity Carolina Torres, Associate Professor, Endowed Chair in Postharvest Systems, WSU

Fruit Quality Impacts and Cold Chain Management Challenges Resulting from Warmer Growing Seasons – Dave Rudell, Research Plant Physiologist, USDA, ARS

- 10:15 Risk Management Within the Harvest Environment, The WSDA Onfarm Readiness Review Program: Panel– Karen Ullmann, Education and Outreach Coordinator, WSDA; Jeremy Leavitt, Food Safety & Compliance Director, Borton Fruit; and Sarah Rasmussen, Orchard Food Safety and Compliance Manager, Gilbert Orchards
- 10:55 BioMarker Development to Predict Apple Storage Disorders Nigel Gapper, Global Genomics Leader, AgroFresh

Information-based Apple and Pear Cold Chain Management Using Modern Diagnostics – Dave Rudell, Research Plant Physiologist, USDA, ARS



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11:35 **Produce Safety Rule On-farm Inspections: Panel** – Kelly Morales, Produce Safety Inspection Supervisor, WSDA; Derek Tweedy, Food Safety Compliance Officer, Domex Superfresh Growers; and Jeff Christoferson, Safety Manager, Columbia Fruit

SOILS AND NUTRITION

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

Concurrent Session

Session Sponsor: G.S. Long Company

Session Managers: Bernardita Sallato, Tree Fruit Extension Specialist, WSU; Garret Bishop, G.S. Long Company

Location: Numerica Performing Arts Center

- 8:00 Welcome and Introduction– Bernardita Sallato, Tree Fruit Extension Specialist, WSU
- 8:05 Cover crop for Improved tree growth and soil health in orchards Jennifer Reeve, Associate Professor, Organic/Sustainable Agriculture, Utah State University
- 8:35 Microbial Soil Health Tara Sullivan, WSU
- 9:05 Break
- 9:20 Honeycrisp and Bitter Pit in Eastern New York: Connecting the Spots – Daniel J. Donahue, CCE Extension Associate-Tree Fruit Specialist, Cornell Cooperative Extension
- 10:05 Using Rootstocks and Horticultural Management to Achieve Elemental Balance in Honeycrisp – Nadia Valverdi, Ph.D. Candidate, WSU
- 10:35 **Potassium in soils and role in fruit quality** Bernardita Sallato, Tree Fruit Extension Specialist, WSU
- 11:05 Panel Bernardita Sallato, Tree Fruit Extension Specialist, WSU; Nadia Valverdi, Ph.D. Candidate, WSU; Daniel J. Donahue, CCE Extension Associate-Tree Fruit Specialist, Cornell Cooperative Extension; Tara Sullivan, WSU; Jennifer Reeve, Associate Professor, Organic/Sustainable Agriculture, Utah State University; and Garret Bishop, Garret Bishop, G.S. Long Company

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Spanish Language Session 1

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

Concurrent Session

Session Sponsor: FirstFruits Farms

Session Managers: Manoella Mendoza, Research Operations Manager, Washington Tree Fruit Research Commission & Francisco Sarmiento, Hispanic Orchard Employee Education Program, Wenatchee Valley College

Location: Wenatchee Convention Center, Grand Apple Ballroom South

- 8:00 Bienvenida e introducción / Welcome and Introduction Manoella Mendoza, Research Operations Manager, Washington Tree Fruit Research Commission & Francisco Sarmiento, Hispanic Orchard Employee Education Program, Wenatchee Valley College
- 8:10 Actualización del censo de la industria frutícola/Tree Fruit industry census update – Ignacio Marquez, Regional Assistant to the Director, Washington State Department of Agriculture
- 8:25 Fuego bacteriano-respondiendo preguntas y pronostico para el próximo año / Fireblight – answering questions and prognostics for next year – Tiana DuPont, Extension Specialist, WSU Extension
- 8:50 Buenas practicas agricolas para prevenir y enfrentar al fuego bacteriano / Good agricultural practices to prevent and fight Fireblight – Victor Bueno, Orchard Manager, Washington Fruit and Produce
- 9:15 Riesgos de enfermedades por calor y mala calidad del aire/ Risks of heat illness and poor air quality – Teresa Andrews, UC Davis, Western Center for Agricultural Health and Safety

10:00 Receso / Break

- 10:10 Modelo de crecimiento del tubo polínico / Pollen tube growth model Joel Flores, Production Manager, Washington Fruit and Produce
- 10:50 El impacto del estrés ambiental en manzanos / The impact of environmental stress on apple trees – Raquel Gomez, Graduate Research Assistant, Washington State University & Jessica Waite, Postdoctoral Researcher, Washington State University
- 11:10 Actualización de los Programas de Protección del Trabajador y Capacitaciones WSDA / Worker Protection Standard (WPS) and WSDA Training Program Updates – Bradley Farrar, Education Specialist, Washington State Department of Agriculture

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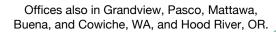


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SPANISH LANGUAGE SESSION 2

1:45 P.M. - 5:00 P.M.

Concurrent Session

Session Sponsor: Stemilt Growers

Session Managers: Jacqui Gordon, Director of Training, Education & Member Services, Washington State Tree Fruit Association & Carolina Torres, Asst. Professor, Wenatchee TREC, Washington State University

Location: Wenatchee Convention Center, Grand Apple Ballroom South

- 1:30 Sesión de la tarde / Afternoon Spanish session Jacqui Gordon, Director of Training, Education & Member Services, Washington State Tree Fruit Association and Carolina Torres, Asst. Professor, Wenatchee TREC, Washington State University
- 1:35 Manejo de vigor en huertas de árboles frutales / Vigor management in tree fruit orchards Rob Call, Orchard Manager, Bear Creek Orchard
- 2:05 Actualización sobre la enfermedad de la cereza pequeña (LCD) / Little Cherry Disease (LCD) Update – Bernardita Sallato, Tree Fruit Extension Specialist, Prosser-IAREC, Washington State University & Alfredo Reyes, Director of Horticulture, Kyle Mathison Orchards
- 2:35 Uso de sanitizantes en el agua de postcosecha / Use of sanitizers in postharvest water – Enrique Garcia, R&D Lab Manager, Stemilt Growers
- 2:55 Guía de defectos de manzanas, 50 aniversario del WTFRC / Apple defect guide, WTFRC 50-year anniversary – Ines Hanrahan, Executive Director, Washington Tree Fruit Research Commission

3:10 Receso / Break

3:20 Recursos Educativos / Educational Resources (lightning round) – (1) Jacqui Gordon, Director of Training, Education & Member Services, Washington State Tree Fruit Association; (2) Eladio Gonzales, Orchard Manager, G.S. Long Company; (3) TBD, Good Fruit Grower; (4) Erika Betancourt, Scholarship Specialist, WAEF; (5) Francisco Sarmiento, Hispanic Orchard Employee Education Program, Wenatchee Valley College; (6) Ofelio Borges, Technical Services and Education Program Manager, WSDA

- 4:05 Premio Liderazgo Latino / Latino Leadership Award
- 4:20 Prepárese para FSMA! / Get ready for FSMA! Jacqui Gordon, Director of Training, Education & Member Services, Washington State Tree Fruit Association
- 4:50 Efecto del clima sobre maduración y calidad de manzanas pre y postcosecha / Influence of climate on apple maturity and quality preand postharvest – Carolina Torres, Asst. Professor, Wenatchee TREC, Washington State University

5:20 Finalización / Adjourn



El recurso esencial, en Español

The essential resource, in Spanish



Suscríbase a nuestro boletín electrónico, eFlash en español, y obtén lo último en horticultura, desde las huertas hasta las empacadoras.



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TREE FRUIT PATHOLOGY

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

Concurrent Session

Session Sponsor: Pace International

Session Managers: Achour Amiri, Assistant Professor, WSU; Tianna DuPont, Tree Fruit Extension Specialist, WSU

Location: Numerica Performing Arts Center

- 1:30 Cherry and Apple Powdery Mildews: Current Status and Management – Gary Grove, Plant Pathologist, Extension Plant Pathologist, and Professor, WSU
- 2:15 Fungicide Resistance: Status and Alleviation in the PNW Achour Amiri, Assistant Professor, WSU
- 3:05 Fire blight status: Management and New Research Tianna DuPont, Tree Fruit Extension Specialist, WSU
- 3:50 Little Cherry Disease: Panel Scott Harper, Director, Clean Plant Center Northwest; Tobin Northfield, Assistant Professor, WSU; and Craig Harris, Harris Farms, Inc.



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POLLINATION AND **CROP LOAD MANAGEMENT SESSION**

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

Concurrent Session

Session Sponsor: Semios

Session Managers: Tory Schmidt, Project Manager, Washington Tree Fruit Research Commission

Location: Wenatchee Convention Center, Grand Apple Ballroom North

- 1:15 Native Pollinator Species - Natalie Boyle, Center for Pollinator Research, Penn State University
- 1:45 WSU Bee Lab Update: New Breeding Lines and Strategies for Improving Colony Health - Steve Sheppard, WSU-Pullman
- 2:15 Honeybee Foraging and Fruit Set Models On DAS - Vince Jones, WSU-Wenatchee
- 2:35 Setting and Thinning Your Crop - It's All About the Right Timing -Poliana Francescatto, Valent Biosciences
- 3:20 Beyond Manchurian: New Candidates for Apple Pollinizers - Stefano Musacchi, WSU-Wenatchee
- 3:50 Cherry S-Alleles, Effective Pollination Window, Mechanical Pollination - Matt Whiting, WSU-Prosser
- 4:15 Observations About Pollen, Pollinizers, and Pollinators: Panel -Moderator: Tom Auvil, North American Plants, Harold Schell, Chelan Fruit; and Lee Gale, Northwest Wholesale Fruit

WSTFA BANQUET

6:00 P.M. - 9:00 P.M.

Master of Ceremonies: Mike Hambelton, Double M Orchards Banquet Sponsor: Good Fruit Grower Hors d'Oeuvres Sponsor: Wilbur Ellis

Location: Wenatchee Convention Center, Grand Apple Ballroom

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

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INVESTING IN IPM TODAY WILL HELP PROTECT CROPS FOR YEARS TO COME

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

Concurrent Session

Session Sponsor: Corteva Agriscience

Co-Session Managers: Mike Doerr, Key Account Manager, Wilbur Ellis, Alix Whitener, Technical Service Manager, FMC Corporation

Location: Wenatchee Convention Center, Grand Apple Ballroom South

- 8:00 **Optimizing Existing and Future Spray Technologies** Gwen-Alyn Hoheisel, Extension Specialist, WSU
- 8:30 WA-SIR: Year 2 Update on the Sterile Codling Moth Release Project in Washington Elizabeth Beers, Entomologist, WSU
- 9:00 Timing Codling Moth and Obliquebanded Leafroller Treatments for Optimal Results and Evaluating Past Performance of Your Spray Programs – Vincent Jones, Entomologist, WSA
- 9:30 Invasive Arthropod Pests of Tree Fruit: Current Challenges and Potential New Ones – Alix Whitener, Technical Service Manager, FMC Corporation
- 10:00 Adding Natural Enemies to the Pear IPM Tool Box- Tianna DuPont, Tree Fruit Extension Specialist, WSU
- 10:30 Management of Pear Psylla with Integrated Approaches Louie Nottingham, Entomologist, WSU
- 11:00 Status and Management Tools for BMSB in Pacific Northwest Orchard Crops – Nik Wiman, Entomologist, OSU
- 11:30 **Grower Panel** Teah Smith, Zirkle Fruit; Shawn Gilbert, Chiawana Orchards; and Rudy Prey, Prey's Fruit Barn and Orchards

WA38 | COSMIC CRISP®

8:30 A.M. - 12:00 P.M.

Concurrent Session

Session Sponsor: Key Bank

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

Location: Wenatchee Convention Center, Grand Apple Ballroom North

- 8:30 Welcome Karen Lewis, Regional Extension Specialist, WSU Extension & Ines Hanrahan, Executive Director, Washington Tree Fruit Research Commission
- 8:35 WSU and PVM Updates Moderator: Brent Milne, Assistant Manager, Company Orchards, McDougall and Sons, Inc.
- 8:40 Cosmic Crisp[®] WSU Update Past, Present, and Beyond Scott Holbert, Associate Dean, CAHNRS, WSU & Albert Tsui, Business Developement Specialist, CAHNRS, WSU
- 9:00 Cosmic Crisp* PVM Update By the Numbers, Plantings, Volume and Marketing Efforts – Lynnell Brandt, President, PVM & Kathryn Grandy, Director of Marketing and Operations, PVM



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Wednesday, December 11

9:30 WSU Research and Extension Updates

Effect of Prohexadione Calcium (Apogee*) on a WA38 top grafted orchard – Stefano Musacchi, WSU Wenatchee

WA38 fruit size and dry matter for fruit quality/consumer preference – Stefano Musacchi, WSU Wenatchee

WA38 flower biology, pollination and fruit development – *Sara Serra and Stefan Roeder, WSU Wenatchee*

WA 38 Research and Extension Update – Bernardita Sallato, WSU Prosser

2019 observations from the catwalk and cull bin – *Carolina Torres, WSU Wenatchee*

11:00 Grower Panel. Moving from Growing the Tree to Growing Fruit – Moderator: Karen Lewis, WSU Extension; Panelists - Tom Auvil, North American Plants; Paul Stiekema; Conor Kilian, Kilian Farms; and Troy Huck, Monson Fruit

Worker Protection Standard (WPS) Train-the-Trainer Refresher Course for WSDA WPS Certified Trainers 8

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

Location: Coast Hotel Riverside Room & Saddlerock Room Pre-Registration Required

Worker Protection Standard (WPS) Train-the-Trainer Refresher Course for WSDA WPS Certified Trainers

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

Location: Coast Hotel Riverside Room & Saddlerock Room Pre-Registration Required WAEF marked a milestone this

WAEF marked a milestone this year – 25 years as the charity of Washington's tree fruit industry! Working together, industry members have helped 2000+ students attend college with scholarship funding in excess of \$9 million.



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Learn more at www.waef.org Come by our booth at the WSTFA annual meeting Research News Flash — Monday, December 9

Session Manager: Suzanne Bishop, Research & Development Manager, Allan Brothers Inc. Session Sponsor: Papé Material Handling Wenatchee Convention Center, Grand Apple Ballroom North

1:30	Welcome And Outline – Suzanne Bishop, Allan Bros			
TREE F	TREE FRUIT BREEDING			
1:40	Advancing Genetic Resources for Pear Rootstock Breeding – Zara York, WSU - TFREC			
1:46	An Update on a WA 38 [™] Rootstock Trial in Washington State – Erica Casagrande Biasuz, WSU - TFREC			
1:52	Effects of Exogenous Hormonal and Chemical Applications on Seed Dormancy in Sweet Cherry (Prunus Avium) – Michael Stein, WSU - IAREC			
1:58	S-Genotyping to Determine Cross- Compatibility In Apple – <i>Ryan Sheick, WSU -TFREC</i>			
2:04	Status of Advanced Selection Screening in the WSU Apple Breeding Program – Manoella Mendoza, WTFRC			
2:10	Promising WSU Sweet Cherry Selections – <i>Corina Serban,</i> <i>WSU - IAREC</i>			
2:16	Q&A – Austin Wilson, Allan Bros			

POSTHARVEST PHYSIOLOGY

2:26	Rapid CA Impacts Apple Fruit Quality and Disosrders – Jim Mattheis, USDA-ARS Tree Fruit Research Laboratory
2:32	WA 38 Starch Scale for the Washington State Apple Industry – Sadat Amankona, WTFRC
2:38	Next Generation Postharvest Tools – Loren Honaas, USDA- ARS Tree Fruit Research Laboratory
2:44	Tools for Bitter Pit Prediction in Honeycrisp – Federico Grignaffini, WTFRC

PLANT PATHOLOGY AND FOOD SAFETY

2:50	Identification of Microbial Community Profile Associated with Apple Rootstock Genotypes – Christopher Van Horn, USDA- ARS Tree Fruit Research Laboratory
2:56	Updates on Virulence on Management of the Emerging Phacidium Rot of Pome Fruit – <i>Kutay Ibrahim Ozturk, WSU -</i> <i>TFREC</i>
3:02	Monitoring Fungicide Resistance in Apple Powdery Mildew – Lederson Ganan, WSU
3:10	Q&A – Austin Wilson, Allan Bros

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AgroFresh Yakima Office: 509 317 7530 agrofresh.com Research News Flash — Monday, December 9

Session Manager: Suzanne Bishop, Research & Development Manager, Allan Brothers Inc. Session Sponsor: Papé Material Handling Wenatchee Convention Center, Grand Apple Ballroom North

PEST MANAGEMENT

3:21	Exploring the Functional Capacity of Seed Meal-Structured Microbiomes in the Control of Apple Replant Disease – <i>Tracey</i> <i>Somera, USDA-ARS Tree Fruit Research Laboratory</i>
3:27	Data to Model Apple Airblast Spraying Drift Exposure Levels – Anura Rathnayake, WSU - CPASS
3:33	Alternate Spray Technologies for Pear Psylla Mgt – M. Jacob Schrader, WSU - CPAAS
3:39	Managing Codling Moth — One Female at a Time – Alan Knight, Private Consultant
3:45	The Establishment Risk of Spotted Lanternfly in the United States with a Focus on Washington State – Tewodros Wakie, USDA-ARS Tree Fruit Research Laboratory

3:51 **Q&A** – Austin Wilson, Allan Bros.



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32 WSTFA 115th Annual Meeting & NW Hort Expo

Research News Flash — Monday, December 9 Session Manager: Suzanne Bishop, Research & Development Manager, Allan Brothers Inc. Session Sponsor: Papé Material Handling Wenatchee Convention Center, Grand Apple Ballroom North

NEW AG TECHNOLOGY

4:01	New Tech for Ag Safety and Health: Pesticides, Heat, and Wildfire Smoke – Edward Kasner, UW PNW - Agricultural Safety and Health Center
4:07	Solid Set Canopy Delivery System for Efficient Agrochemical Delivery in Apple and Grapevine Canopies – Rakesh Ranjan, WSU - CPASS
4:13	A New Site-Specific Weather App for Cherry Cold Hardiness – Dave Brown, WSU - AgWeatherNet
4:19	Machine Learning for Hyper-Local Weather Forecasting – Joseph Zagrodnik, WSU - AgWeatherNet
4:25	A Smartphone Application for Real-Time Apple Fruit Surface Temperature Monitoring – Bin Wang, WSU - Visiting Scholar
4:31	Towards Automated Canopy and Crop-Load Management in Tree Fruit – Manoj Karee, WSU - CPAAS
4:37	Machine Vision System for Occlusion Free Robotic Harvesting in Apple Orchards – Manoj Karkee, WSU - CPAAS
4:45	Q&A – Austin Wilson, Allan Bros
4:56	Thank You's and Conclusions – Suzanne Bishop, Allan Bros





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