



The 51st Hermiston Farm Fair Seminars

Location: Eastern Oregon Trade and Event Center, 1705 E Airport Rd, Hermiston, OR 97838

Dates: Dec 4 – 5, 2024

Wednesday, December 4 (8 am-12 pm)

Potato

- 8:00 a.m. [Next-Generation Tools for Rapid Nematode Diagnosis](#)
Cynthia Gleason, Department of Plant Pathology, Washington State University
- 8:30 a.m. [Managing the Evolving Bacterial Soft Rot Complex](#)
Ken Frost, Hermiston Agricultural Research and Extension Center, Oregon State University
- 9:00 a.m. [Sustainable Potato Production: ET vs Soil Moisture-Based Irrigation with Variable Nitrogen Management](#)
Tajamul Hussain and Ruijun Qin, Hermiston Agricultural Research and Extension Center, Oregon State University
- 9:30 a.m. [The Effect of Nitrogen Application Rates on Aphid Abundance on PVY-Resistant and -Susceptible Potato Varieties](#)
Josephine Antwi, Hermiston Agricultural Research and Extension Center, Oregon State University
- 10:00 a.m. **Break**
- 10:30 a.m. [Differential Gene Expression Provides Insights on Host Resistance and Susceptibility Reactions to Columbia root-knot Nematodes in Potato](#)
Shengwei Hu and Vidyasagar Sathuvalli, Hermiston Agricultural Research and Extension Center, Oregon State University
- 11:00 a.m. [Essential Oils: A Natural Alternative to Synthetic Chemicals for Potato Sprout Suppression](#)
Valtcho Jeliaskov, Department of Crop and Soil Science, Oregon State University
- 11:30 p.m. [How Can Artificial Intelligence Help us Breed a Better Potato?](#)
Max Feldman, Temperate Tree Fruit and Vegetable Research Unit, USDA-ARS

12:00 **Adjourn**



Wednesday, December 4 (1 pm-5 pm)

Potato

- 1:00 p.m. **Aphids and Aphid-Vectored Viruses of Potatoes**
Gina Angelella, Temperate Tree Fruit and Vegetable Research Unit,
USDA-ARS
- 1:30 p.m. **Changes to Soil Health Indicators, Microbial Communities, and Potato Yield Following Biofumigation and Application of Composted Manure**
Ken Frost, Hermiston Agricultural Research and Extension Center,
Oregon State University
- 2:00 p.m. **Greening and Glycoalkaloids**
Roy Navarre, Temperate Tree Fruit and Vegetable Research Unit,
USDA-ARS
- 2:30 p.m. **New Strategies to Control Potato Virus Y (PVY) in Potato**
Alexander Karasev, Department of Entomology, Plant Pathology and
Nematology, University of Idaho
- 3:00 p.m. **Break**
- 3:30 p.m. **The Reference Quality Genome of Potato Golden Nematode Resistant Solanum Brevicaule Y1-5 and Resistance Genes Analysis**
Senthilkumar Shanmugavel and Vidyasagar Sathuvalli, Hermiston
Agricultural Research and Extension Center, Oregon State University
- 4:00 a.m. **Beet Leafhopper-Associated Pathogen Prevalence in the Columbia Basin of Washington**
Kylie Swisher Grimm, Temperate Tree Fruit and Vegetable Research
Unit, USDA-ARS
- 4:30 p.m. **Impact of Environment on Crop Productivity in the PNW**
Jacob Blauer, Department of Horticulture, Washington State University
- 5:00 p.m. **Adjourn**



December 4, 2024 (8 am-12 pm)

Vegetable

- 8:00 a.m. **New IPM Modeling**
Surendra Dara, Department of Horticulture, Oregon State University
- 8:30 a.m. **What's New at OSU Vegetable Breeding Program?**
James Myers, Department of Horticulture, Oregon State University
- 9:00 a.m. **Successfully Growing Sweet Potatoes in the Pacific Northwest**
Laura Schulz and Jordan White, Northwestern Washington Res & Ext Ctr, Washington State University
- 9:30 a.m. **Research Update on Onion and Potato Weed Control**
Rui Liu, Irrigated Agriculture Research and Extension Center, Washington State University
- 10:00 a.m. **Break**
- 10:30 a.m. **Effect of Vine Kill Timing and Speed on Blackspot Bruise**
Pamela Hutchinson, Aberdeen Research and Extension Center, University of Idaho
- 11:00 a.m. **Developing Best Management Practices for Potato Cropping System**
Haoyang Lyu, Ruijun Qin, and Tajamul Hussain, Hermiston Agricultural Research and Extension Center, Oregon State University
- 11:30 a.m. **Field Survey of Soilborne Fusarium Disease and Soil Health Indicators**
Kristine Buckland, North Willamette Research and Extension Center, Oregon State University
- 12:00 p.m. **Adjourn**



December 4, 2024 (1 pm-5 pm)

General Agriculture

- 1:00 p.m. **Two Herbicides Are Better Than One**
Drew Lyon, Department of Crop and Soil Sciences, Washington State University
- 1:30 p.m. **Smooth Scouringrush from the Dinosaurs to Direct Seed**
Drew Lyon, Department of Crop and Soil Sciences, Washington State University
- 2:00 p.m. **P & K Rate Impacts on Timothy Yield and Lodging**
Steve Norberg, Washington State University Extension-Franklin County
- 2:30 p.m. **Diagnosing Pest Problems in Alfalfa**
Steve Norberg, Washington State University Extension-Franklin County
- 3:00 p.m. **Break**
- 3:30 p.m. **The Effect of Plant Growth Regulators on Bluegrass Seeds**
Ruijun Qin, Hermiston Agricultural Research and Extension Center, Oregon State University
- 4:00 p.m. **Entomological Research in the Treasure Valley: Perspectives of an Early-Career Faculty**
Armando Falcon-Brindis, Parma Research and Extension Center, University of Idaho
- 4:30 p.m. **When and Where to Expect Insect Pest? Leverage Habitat Suitability and Phenology Model to Anticipate Insect Activity**
Gengping Zhu, Department of Entomology, Washington State University
- 5:00 p.m. **Adjourn**



Thursday, December 5 (8 am-12 pm)

General Agriculture

- 8:00 a.m. [Oregon Pest Monitoring Network: Online Insect Surveillance and Reporting Tools for Key Agricultural Pests in Oregon](#)
Seth Dorman, Forage Seed and Cereal Research Unit, USDA-ARS
- 8:30 a.m. [Remote Sensing and Proximal Sensing for Precision Potato Production](#)
LiuJun Li, Department of Soil and Water Systems, University of Idaho
- 9:00 a.m. [Updates from the Grass Seed Pathology Program at USDA](#)
Hannah Rivedal, Forage Seed and Cereal Research Unit, USDA-ARS
- 9:30 a.m. [Using Evaporative Cooling to Mitigate Heat Damage to Blueberries](#)
Weiqiang Yang, North Willamette Research and Extension Center (NWREC), Oregon State University
- 10:00 a.m. **Break**
- 10:30 a.m. [Sifting Grain from Chaff in Soil Health and Regenerative Agriculture](#)
Andrew McGuire, Washington State University Extension-Grant County
- 11:30 a.m. [The Potential of Winter Cover Crops to Improve Soil Health](#)
Markus Kleber, Department of Crop and Soil Science, Oregon State University
- 12:00 p.m. **Adjourn**



Thursday, December 5 (1 pm-4:30 pm)

Best management practices

- 1:00 p.m. **Cover Cropping Vegetables: Is It Worthwhile?**
Nicholas Andrews, Department of Horticulture, Oregon State University
- 1:30 p.m. **Onion Response to Irrigation Stress**
Udayakumar Sekaran, Malheur Experimental Station, Oregon State University
- 2:00 p.m. **Soil Aggregate Stability as an Indicator of Soil Health**
Carlos Bonilla, Hermiston Agricultural Research and Extension Center, Oregon State University
- 2:30 p.m. **Break**
- 3:00 p.m. **Anaerobic Soil Disinfestation**
Francesco Di Gioia, Department of Plant Science, Pennsylvania State University
- 3:30 p.m. **Biology and Management of Insect Vectors of Potato Pathogens**
Rodney Cooper, Temperate Tree Fruit and Vegetable Research Unit, USDA-ARS
- 4:00 p.m. **IPM of Weeds in Vegetable Farming**
Aaron Becerra-Alvarez, Department of Horticulture, Oregon State University
- 4:30 p.m. **Adjourn**



Thursday, December 5 (8 am-12 pm)

Cereal

- 8:00 a.m. **Wheat Breeding for Improved Production on North-Central Oregon's Irrigated Acres**
Margaret Krause, Department of Crop and Soil Science, Oregon State University
- 8:30 a.m. **Winter Wheat Varieties for Irrigated Production in North Central Oregon**
Ryan Graebner, Columbia Basin Agricultural Research Center, Oregon State University
- 9:00 a.m. **Making Informed Fertilizer Decisions: Strategies for Corn and Other Forages**
Megan Baker and Matt Yost, Plants, Soils, Climate Department, Utah State University
- 9:30 a.m. **Herbicide Resistance in Weeds**
Judith Barroso, Columbia Basin Agricultural Research Center, Oregon State University
- 10:00 a.m. **Break**
- 10:30 a.m. **Fungicide Application on Winter Wheat**
Aaron Esser, Washington State University Extension-Lincoln/Adams Counties
- 11:00 a.m. **Dryland Grain Hemp Production**
Don Wysocki, Oregon State University Extension- Umatilla County
- 11:30 a.m. **Oregon Wheat Markets and Commission Updates**
Tyler J. Hansell, Oregon Wheat Commission
- 12:00 p.m. **Adjourn**



Thursday, December 5 (1 pm - 5:00 pm)

Cereal

- 1:00 p.m. **Identification and Management of Wheat Diseases**
Timothy D. Murray, Department of Plant Pathology, Washington State University
- 1:50 p.m. **Stripe Rust Management**
Xianming Chen, Wheat Health, Genetics, and Quality Research, USDA-ARS
- 2:30 p.m. **Break**
- 3:00 p.m. **The economic value of mineral nutrients contained in wheat residue**
Curtis Adams, Columbia Plateau Conservation Research Center, USDA-ARS
- 3:30 p.m. **The Impact of Stubble Management on Soil Water and Wheat Yield**
Stewart Wuest and Nicole Durfee, Columbia Plateau Conservation Research Center, USDA-ARS
- 4:00 p.m. **Fungicides Are Expensive: When Do We Need Them Most?**
Christina Hagerty, Columbia Basin Agricultural Research Center, Oregon State University
- 4:30 p.m. **Adjourn**

Pending Pesticide Credit:

ODA:

WSDA:

ISDA:

Approved CEUs over 2 days:

Nutrient Management: 1.5

Soil & Water Management: 1.5

Integrated Pest Management: 14.5

Crop Management: 5

Professional Development: 0.5

Manure Management: 0

Sustainability: 3

Precision Ag: 1