

# AG INNOVATIONS CONFERENCE: SUSTAINABLE AGRICULTURE

22-23 SEPTEMBER 2022, North Willamette Research and Extension Center, 15210 NE Miley Rd, Aurora, OR 97002

The purpose of the Ag Innovations Conference (AIC) series is to introduce new technologies to the grower community by speakers from universities, research organizations, and the agriculture input industry. There is a theme for each conference and the previous ones in California with general (2014), microbial control (2017), biologicals (2019), and comprehensive crop care (2020) themes were very successful. We are organizing the 2022 conference for the first time in the Pacific Northwest with the theme of sustainable agriculture. Come join us for an informative event with various presentations, field tours, and a tradeshow at the North Willamette Research and Extension Center (NWREC). AIC will be on 22 and 23 September 2022 followed by an optional Harvest Dinner on the 23<sup>rd</sup> evening. Lunch and refreshments will be provided during the conference.

## DAY 1 AGENDA

07:30 AM

Sign-in

08:10 AM



**Welcome remarks**

Ag Innovations Conference and its importance of applied research, developing practical solutions, building collaborations for effective outreach

**Surendra Dara**, Professor and Director, NWREC, Oregon State University

08:30 AM



**How the pressure chamber can help us understand drought stress in hazelnuts**

Basics of drought stress from literature search, applied research on irrigation management in the Willamette Valley

**Nik Wiman**, Associate Professor and Orchard Specialist, Oregon State University

09:00 AM



**Water conservation and improved drip irrigation efficiency with an additive**

Using small quantities of 4<sup>th</sup> generation quarternary ammonia to prevent mineral and biological fouling of drip emitters and exploring the costs and benefits.

**Joe Kupillas**, Western US Territory Manager, Pace 49

09:30 AM



**Dry farming vegetable crops in the maritime Pacific Northwest**

Techniques supporting dry farming organic vegetables in the maritime PNW, results from multiple on-farm studies, and connecting with the Dry Farming Collaborative

**Amy Garrett**, Associate Professor of Practice, Oregon State University Extension

## Coffee Break-Expo Visit 10:00-10:30 AM

10:30 AM



**Biofungicides and how to get the most from them**

Learn about biofungicide types and modes of action, navigating product offerings, and best-use practices

**Matthew Krause**, Technical Director – Covered Crops, Lallemand Plant Care

11:00 AM



**Frontiers in slug and snail management**

Development of new tools such as microbial control agents and novel attractants for managing invasive gastropods

**Rory Mc Donnell**, Associate Professor, Oregon State University

11:30 AM



**Biological solutions for nematode and weed control**

Biological control options for plant-parasitic nematodes and weeds and integrating them into an IPM program

**Louis (Lucho) Boddy**, Plant Science Group Leader, Bioceres Crop Solutions

**Lunch Break-Expo Visit 12:00-1:30 PM**

01:30 PM



**Embracing the power of plant-based bioactives**

Exploring the properties and benefits of plant-based bioactives, among many natural beneficial compounds, for production agriculture. Raw materials to formulated EPA-registered pesticides.

**Shannon H. Nauss Liebreich**, Director of Agriculture | Channel Sales & Business Development, Terramera Inc.

02:00 PM



**Electric weed control in tree crops**

An overview of electric weed control in tree crops and current research updates on weed control efficiency and crop tolerance.

**Marcelo Moretti**, Assistant Professor, Oregon State University Extension

02:30 PM



**Evolution of nutrient management in hazelnuts with extensive field research**

Multi-year, multi-location studies to mitigate alternate bearing and better nutrient management with tissue and soil analyses, biometric and yield data, and non-structural carbohydrate sampling

**Andrew Pokorny**, Research Agronomist, Nutrien Ag Solutions

03:00 PM



**Challenges and opportunities of substrate tabletop strawberry production**

Overcoming a steep learning curve in going from in-ground to tabletop production and many benefits of this system to encourage more growers as we transform strawberry production

**William Unger**, President, Unger Berry Farms LLC

**Break-Expo Visit 3:30-4:00 PM**

4:00 PM



**Cover Crops and nitrogen management in organic vegetables**

On-farm cover crop studies, nitrogen mineralization and immobilization from cover crops, and an introduction to the [Western Cover Crops Council](#)

**Nick Andrews**, Associate Professor of Practice, Oregon State University

4:30 PM



**Rethinking disease control: improving fruit quality and yield with precision bee vectoring**

Science behind precision bee vectoring as a natural solution of choice for managing diseases such as anthracnose, mummy berry, and gray mold; and for improving fruit quality and marketable yield with data from multiple berry and fruit crop studies as well as grower feedback

**Mason Newark**, Field Technical Manager, Bee Vectoring Technology

**Day 1 conference adjourns at 5:00 pm**

# DAY 2 AGENDA

08:00 AM



## **Sustainable blueberry production: a natural progression**

Sustainability aspect is unique to each farmer. It is a continuous process of planning, implementing, observing, learning, and refining each growing season.

**Carl Casale**, Partner, Casale AG, LLC

08:30 AM



## **The social aspect of sustainable farming: stress of farmers and ranchers**

Causes of high stress, anger, depression, and suicidal thinking in farmers and ranchers, recognizing and responding to those signs, and getting the required help.

**Cassie Bouska**, Agricultural Field Faculty, Oregon State University

09:00 AM



## **Maintaining resilience of agriculture in the US Northwest to climate change**

Potential impact of climate change on responses of crops, pollinators, pests, worker health, and infrastructure and tools for tracking relevant climatic and biological metrics in real time.

**Erica Fleishman**, Director, Oregon Climate Change Research Institute

09:30 AM



## **Measuring the temperature inversion to help guide frost protection practices in vineyards**

Knowing the temperature characteristics of frost events and measurements of inversion are important for investing in wind machines for frost protection.

**Mark Battany**, Water Management & Biometeorology Advisor, University of California Coop. Extn.

## Coffee Break-Expo Visit 10:00-10:30 AM

10:30 AM



## **Economics and science of choosing the right product for managing soil health**

Navigating the vast array of products for promoting soil health to understand their function, economic aspects, and determining their benefit for sustainable farming

**Carl Bruice**, National Nutrition Technical Manager, Wilbur-Ellis Company

11:00 AM



## **Recent advances in biocontrol technologies for improved pest management and environmental health**

Recent advances in invertebrate biocontrol agents and technologies for an efficient and environmentally-safe pest management for growers of many crops.

**Nicolas Bertoni**, IPM Technical Specialist – Canada/US PNW, Bioline Agrosiences

11:30 AM



## **Concluding remarks**

**Staci Simonich**, Dean, College of Agricultural Sciences, Oregon State University

## Lunch Break 12:00-1:00 PM

1:00-3:00 PM

### **NWREC Field Tour**

An overview of various research projects at the North Willamette Research and Extension Center

**NWREC Faculty and Staff**

## REGISTRATION AND HOTEL ACCOMMODATIONS

**Venue:** Conference will be in a large tent in the westside lawn of NWREC. Please dress appropriately for the late September weather.

**Register at:** <https://tinyurl.com/NWRECAIC2022>

Our portal allows one registration at a time. If you have a guest or other team members attending any of the events, please register them separately.

Early registration deadline August 31:	\$125 for the conference and \$75 for the Harvest Dinner per individual
Late registration deadline September 16:	\$150 for the conference and \$75 for the Harvest Dinner per individual
Walk-in registration (cash/check only):	\$180 for the conference per individual

### Hotel accommodations

A few rooms with discounted rates are available on the first come first serve basis at the following hotels.

[Holiday Inn Portland South Hotel and Convention Center](#), 25425 SW 95<sup>th</sup> Ave, Wilsonville, OR 97070

Reserve the room for \$124 + tax per night at <https://tinyurl.com/HolidayInnAIC>

[Hilton Garden Inn](#), 30800 SW Parkway Avenue, Wilsonville, OR 97070

10% discount with C-NWREC code by calling 503- 855-0996 or online at <https://tinyurl.com/HiltonAIC>

## THANKS TO OUR CONFERENCE SPONSORS!



Situated in the most productive farming region of Oregon, NWREC in Aurora is one of the 11 Oregon State University's agricultural experiment stations across the state. By serving Clackamas, Columbia, Marion, Multnomah, Polk, Washington, and Yamhill Counties NWREC plays an important role in the region where 65% of Oregonians live. Small fruits, Christmas trees, grass seed, hazelnuts, herbs, nursery crops, vegetables, and specialty seed crops are among the major commodities that NWREC researchers work on at the 160-acre facility. By evaluating new varieties, improving production practices, developing environmentally friendly crop protection solutions, and exploring ways to conserve natural resources and optimize agricultural inputs, various research and extension programs at NWREC contribute to thriving farm businesses, strong economy, healthy communities, and safe environment.

Web: <https://extension.oregonstate.edu/nwrec> and <https://agsci.oregonstate.edu/nwrec>

Videos: <https://tinyurl.com/NWRECYouTub>

Newsletter: <https://extension.oregonstate.edu/newsletter/nwrec-news>

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