



**WERA-103**  
Nutrient Management and Water Quality

# WESTERN NUTRIENT MANAGEMENT CONFERENCE

**MARCH 9-10, 2023 | RENO, NV**

The Western Nutrient Management Conference provides an opportunity for research, extension, industry, agricultural professionals and educators to explore, learn, and expand their horizons on current and emerging nutrient related issues in the western region.

Conference Organizer: PAQ Interactive, Inc.

**ONLINE PROCEEDINGS:** [westernnutrientmanagement.org](http://westernnutrientmanagement.org)

# PROGRAM

## THURSDAY, MARCH 9

	TRACK 1	TRACK 2
7:00-8:00 am	Breakfast	
7:55-8:00 am	Opening Remarks, <i>Jared Spackman - University of Idaho</i>	
8:00-8:50 am	<b>Opening Keynote – The Ammonia Rainbow</b> , <i>Alan Blaylock - Nutrien Inc</i>	
8:50-9:00 am	Break	
9:00-11:00 am	<b>Breakout Session 1</b> <ul style="list-style-type: none"> <li>Nitrogen Availability from Organic Amendments <i>Daniel Geisseler - University of California, Davis</i></li> <li>Flushed Liquid Dairy Manure Solid Particle and Nutrient Distributions <i>Lide Chen - University of Idaho</i></li> <li>Effects of Long-term Biosolids Applications in Two Dryland Agroecosystems on Physical, Biological, and Chemical Soil Health Properties <i>Madeline Desjardins - Washington State University</i></li> <li>Biosolids-based Fertilizers as a Nitrogen Source in California Small Grains Systems <i>Konrad Mathesius - University of California Cooperative Extension</i></li> </ul>	<b>Breakout Session 2</b> <ul style="list-style-type: none"> <li>Impact of Variable-Rate Nitrogen on Potato Yield, Quality, and Profit <i>Elisa Flint - Utah State University</i></li> <li>Floral Hemp Responses to Nitrogen Fertilization in the High Desert <i>Felipe Barrios Masias - University of Nevada, Reno</i></li> <li>Variable Rate N and P Management for High-value Vegetable Cropping Systems <i>Charles Sanchez - University of Arizona</i></li> <li>Spoon-fed Nitrogen and Phosphorus Management for Subsurface Drip Irrigated Cotton (<i>Gossypium hirsutum</i>) <i>Joseph Burke - Texas A&amp;M AgriLife Research</i></li> </ul>
11:00-11:30 am	Break & Poster Viewing	
11:30 am-12:00 pm	Flash and Dash	
12:00-1:00 pm	Lunch and Awards	
1:00-2:15 pm	Poster Viewing	
2:15-2:30 pm	Break	
2:30-4:30 pm	<b>Breakout Session 3</b> <ul style="list-style-type: none"> <li>Performance of Public and Private Fertilizer Recommendations for Corn, Alfalfa, and Small Grains <i>Matt Yost - Utah State University</i></li> <li>CropManage Decision Support Tool for Improving Irrigation and Nutrient Efficiency of Cool Season Vegetables in California: a Decade of Field Demonstrations and Outreach <i>Michael Cahn - University of California Extension</i></li> <li>ManureDB: Creating a Nationwide Manure Test Database <i>Nancy Bohl Bormann - University of Minnesota</i></li> <li>Improved Small Grain Nitrogen Use Efficiency with California Site-specific Decision Support <i>Nicholas Clark - University of California Cooperative Extension</i></li> </ul>	
4:45-6:00 pm	Poster Viewing Session, Poster Awards and Mixer	

## FRIDAY, MARCH 10

7:00-8:00 am	Breakfast	
8:00-9:30 am	<b>Breakout Session 4</b> <ul style="list-style-type: none"> <li>How Variable is Variable for Production Fields in Southern Idaho? <i>Linda Schott - University of Idaho</i></li> <li>Variable Rate Fertilization: Soil Moisture Impacts <i>Bryan G. Hopkins - Brigham Young University</i></li> <li>Economics of Alfalfa Fertilization Under Inflated Hay and Fertilizer Prices <i>Steve Norberg - Washington State University</i></li> </ul>	
9:30-10:00 am	Break	
10:00-11:00 am	<b>Breakout Session 5</b> <ul style="list-style-type: none"> <li>Optimizing Fertigation for High Value Crops <i>Charles Sanchez - University of Arizona</i></li> <li>Monitoring Soil Nitrate to Estimate Cover Crop N Contribution in Organic Vegetable Production Fields <i>Dan Sullivan - Oregon State University</i></li> </ul>	<b>Breakout Session 6</b> <ul style="list-style-type: none"> <li>Crystal Green® – the Most Efficient Granular Phosphate Fertilizer <i>Galen Mooso - Ostara</i></li> <li>Helpful or Not?- Biostimulant Use in Corn Silage Production <i>Linda Schott - University of Idaho</i></li> </ul>
11:00-11:10 am	End of Conference. Safe Travels Home!	

# POSTER PRESENTATIONS

## 4R's for N, P, K, S

**Nitrogen Fertilizer Rate and Timing Implications for Malt, Food, and Feed Barley Production in Southern Idaho**

*Jacob Bevan - University of Idaho*

**Stacking 4R Nutrient Management: Potato**

*Clarissa Whitaker - Brigham Young University*

## Environmental and Agricultural Nutrient Management

**A Single Nutrient Source Hydroponic Solution: pH Buffering**

*James Ioannou - Brigham Young University*

**Alfalfa Fertility Survey of Oregon, Washington, and Idaho**

*Casey Messman - Oregon State University*

**Barley Yield and Protein Response to Nitrogen and Sulfur Rates and Application Timing**

*Olanrewaju Adeyemi - University of Idaho*

**Irrigation Management and Drought-tolerant Genetics on Nutrient Uptake**

*Dakota Boren - Utah State University*

**Nutrient Management for Semi-arid Cannabis Production**

*Tina Sullivan - Utah State University*

**Optimizing Nitrogen Fertilizer Rates for Annual Cereal Forage Production**

*Janhvi Pandey - University of Idaho*

**Polymer Coated Urea: Microplastics in the Urban Landscape**

*Caden Seely - Brigham Young University*

**Response of Soil N Cycling, Nitrifying Organisms, and Winter Wheat Yield and Quality to Nitrification Inhibitors in High Rainfall Zones of Northern Idaho**

*Sarah Philpott - Western Ag Innovations*

**Soil Health in American Sports Fields and Golf Courses**

*Miria Barnes - Brigham Young University*

**Sus-Terra Enhanced Efficiency Phosphorus Fertilizer on Potato Grown in Calcareous Soil**

*Lauren Sannar - Brigham Young University*

## General

**Determining Lime Requirements for Idaho Soils**

*Kaone Mookodi - University of Idaho*

**Evaluating Zinc Requirements of Corn, Small Grains, and Alfalfa**

*Megan Baker - Utah State University*

**The Effects of Calcium Source and Placement on Soil Factors and Wheat Performance Factors**

*Shalie Ellickson - Oregon State University*

**Using Calcium Hydroxide for Lime Incubation Studies and Moisture Effects on Liming**

*Carlton Collins - Brigham Young University-Idaho*

*Erik Loera - Brigham Young University-Idaho*

*Roy Reid - Brigham Young University-Idaho*

## Nutrient Cycling in Regenerative Agriculture

**Development of a Constrained Resource Model to Support Intercropping Decisions**

*Ken Greer - Western Ag Innovations*

**Nitrogen Management to Increase Cotton Production in Conservation Cropping Systems**

*Joseph Burke - Texas A&M AgriLife Research*

**Soil Greenhouse Gas Dynamics in Response to Dairy Manure Compost in an Almond Orchard**

*Adolfo Coyotl - University of California, Davis*

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## WESTERN NUTRIENT MANAGEMENT CONFERENCE

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