



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

# WESTERN NUTRIENT MANAGEMENT CONFERENCE

MARCH 5-6, 2025 | 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 of the United States and Canada.

Conference Organizer: PAQ Interactive, Inc.

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

**WEDNESDAY, MARCH 5****PROGRAM**

7:00-8:00 am	Breakfast
8:00-8:15 am	Opening Remarks <i>Amber Moore, Oregon State University</i>
8:15-10:15 am	<b>Critical Topics in US Nutrient Management</b>
	What is a Plant Nutrient? Changing Definitions to Advance Science and Innovation in Plant Nutrition <i>Patrick Brown - University of California-Davis</i>
	What You Need to Know About the National Fertilizer Recommendation Team Called FRST <i>Matt Yost - Utah State University</i>
	Speculation on an Equation for Stratification: How Reliably Can We Estimate Soil Test Values at Different Depths? <i>Steve Culman - Oregon State University</i>
	Converting Between Mehlich-3P and Olsen-P Soil Tests: What Can Go Wrong? <i>Christopher Rogers - USDA-ARS Idaho</i>
10:15-10:30 am	Break & Poster Viewing
10:30 am-12:00 pm	<b>Sulfur Management</b>
	Patterns and Implications of Increasing Sulfur Fertilizer Use at National-to-Global Scales <i>Eve-Lyn Hinckley - University of Colorado, Boulder</i>
	Soil Sulfur Forms, Cycling, Management in Prairie Soils <i>Jeff Schoenau - University of Saskatchewan</i>
	Evaluation of Soil Sulfur Tests for Montana <i>Clain Jones - Montana State University</i>
12:00-1:00 pm	Lunch and Awards
1:00-2:30 pm	<b>Minor Crops</b>
	Fava Bean Diversity and its Potential in the Western United States <i>Kyle Brasier - California State University-Chico</i>
	Insights from Soil Health Assessments Across a Diverse Soils and Land Uses in the Tropics <i>Tai Maaz - University of Hawai'i at Mānoa</i>
	Management Techniques to Optimize Soil pH in Organic Highbush Blueberry <i>Scott Lukas - Oregon State University</i>
2:30-4:00 pm	<b>Combatting Soil Acidity</b>
	Sugar Beet Lime Characteristics and Effects on High pH Soils and Crops in the Western U.S. <i>David Tarkalson - USDA-ARS Idaho</i>
	Managing Soil Acidification <i>Joao Souza - Montana State University</i>
	Spectral Response of Pulse Crops to Soil Acidity for Soil pH Mapping <i>Paul Nugent - Montana State University</i>
4:00-4:20 pm	Student Poster Minute
4:20-6:30 pm	Poster Viewing Session, Poster Awards and Mixer

**THURSDAY, MARCH 6**

7:30-8:30 am	Breakfast
8:30-10:00 am	<b>Nitrogen Cycling</b>
	Relationship Between Nitrogen Mineralization and Soil Texture <i>Daniel Geisseler - University of California, Davis</i>
	Predicting Nitrogen Mineralization from Dairy Manure in Semiarid Cropping Systems <i>April Leytem - USDA-ARS Idaho</i>
	Dairy Manure Applications to Potatoes: Soil Property, Plant Nutrient, and Tuber Quality Response <i>Amber Moore - Oregon State University</i>
10:00-10:30 am	Poster Break
10:30 am-12:00 pm	<b>Nitrogen Fertilizer BMPS</b>
	N Fertilizer, Does It Burn Up Organic Matter? <i>Gabriel LaHue - Washington State University</i>
	A Classification System for Assessing Applied N Performance in Dryland Wheat Crops of the Inland PNW <i>David Huggins - USDA-ARS Washington</i>
	Collaborative Water Quality Monitoring in Agriculture <i>Erik Wardle - Colorado State University</i>
12:00-12:05 pm	End of Conference. Safe Travels Home!

# POSTER PRESENTATIONS

## STUDENT POSTERS

- 4R Nitrogen Management Effects on Silage Corn Production**  
*Benedict Okorie - Utah State University*
- Ammonia Volatilization from Surface-applied Dairy Manure Anaerobic Digestate**  
*Corinne Butler - Oregon State University*
- Polymer Coated Urea: Microplastics in Agricultural Landscapes**  
*Caden Seely - Brigham Young University*
- Application Timing, Soil Type, and Source Effects on Elemental S Availability**  
*Amanda Cox - Oregon State University*
- Banana Fiber as a Soil Amendment in Potato and Corn**  
*Mark Foster - Brigham Young University*
- Greenhouse Lime and Gypsum Placement Strategies for Addressing Soil Acidity in No-till**  
*Sahalie Ellickson - Oregon State University*
- Quinoa Mineral Nutrient Deficiency Symptoms and Concentrations**  
*Geneva Bell - Brigham Young University*
- Nitrogen Removal Potential of Triticale in Cropping Systems Receiving Dairy Effluent Applications**  
*Audrey Jenkins - Oregon State University*
- Recovered Carbon Black from Pyrolyzed Tires as a Zinc Fertilizer for Field Corn in Calcareous Soils**  
*Ruby Sannar - Brigham Young University*
- Soil Property Effect on Nitrogen Mineralization of Dairy Manure in the Pacific Northwest**  
*Ryan Auld - Oregon State University*
- Ammonia Recovery from Anaerobically Digested Dairy Wastewater Facilitated by In-situ Acid and Base Generation in a Transmembrane Electro-chemisorption System**  
*Ashish Kumar Das - University of Idaho*
- Effect of 4R Nitrogen Management on Residual Soil Nitrate and Soil Health**  
*Kamal Deep - Utah State University*
- Effectiveness of Kitchen Compost in Germinating Tomato and Lettuce**  
*Rebecca Kerr - Brigham Young University*
- Lime Incubation for Southern Idaho Soils**  
*Kathryn Young - University of Idaho*
- Precision Fertilizer Management Enabled by Printed Sensors for Direct Soil Nitrate Monitoring**  
*Kuan-Yu Chen - University of Wisconsin-Madison*

## GENERAL POSTERS

- Plant Test Method Precision, Correlations, and Trends: SSSA-NAPT Historical Data**  
*Shannon Nelson - Brigham Young University*
- Hydrothermal Carbonization of Dairy Manure for Phosphorus Recovery and Runoff Risk Mitigation: Effect of Temperature and CaO Addition**  
*Lide Chen - University of Idaho*
- Efficacy of FUSN as an N Source for Irrigated Vegetable Crops**  
*Charles Sanchez - University of Arizona*
- Response of Desert Vegetable Crops to "40 Rock" - a P and Zn Fertilizer Source**  
*Charles Sanchez - University of Arizona*
- Updated Fertilizer Guidelines for Vegetable Crops in Arizona**  
*Charles Sanchez - University of Arizona*
- Soil Test Method Precision, Correlations, and Trends: SSSA-NAPT Historical Data**  
*Bryan G. Hopkins - Brigham Young University*
- On-Farm Variable-Rate Nitrogen Management in Potato**  
*Bryan G. Hopkins - Brigham Young University*
- Quality of Alfalfa Hay As Influenced by Phosphorus and Potassium Fertilization**  
*Steve Norberg - Washington State University*
- Non-dormant Alfalfa and Small Grain Rotations- Tillage and Fertility Effects**  
*Reed Findlay - University of Idaho*
- Micronutrient Management to Optimize Yellow, Brown and Oriental Mustard Production in Southern Idaho**  
*Hafiz Haider Ali - University of Idaho*
- Malt Barley Yield and Quality Response to Nitrogen and Sulfur Fertility**  
*Jared Spackman - University of Idaho*
- Liming for Improved Nutrient Utilization and Weed Management in Wheat**  
*Tom Jacobsen - University of Idaho*

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