2019 NUE Workshop: Program

MONDAY: Registration & Welcome Reception

Eckles Hall Café: 1404 Rollins St, University of Missouri

5:00-7:30  Registration
5:30-6:00  Tour of Historic Sanborn Field
6:00-8:00  BBQ Dinner and Reception
7:00-8:00  Drone Race

TUESDAY: Oral & Poster Sessions

Stotler Lounge: N214 Memorial Union, 518 Hitt St, University of Missouri

7:30  Registration, Breakfast Pastries, and Poster Set Up
8:10  Welcome by Newell Kitchen

SESSION 1: Deconvoluting N and Water Stress Effects

8:20  Jerry Hatfield: Why is Untangling Water and N Stresses So Difficult?
8:40  Tony Vyn: Genetic Changes and Nutrient/Water Stress Interaction Consequences for Potential NUE Improvement in Rainfed Corn

SESSION 2: Commercial N Management Tools: Share What You Can, and Then Just a Little Bit More

9:00  Introduction
9:05  Rick Behrens (Winfield R7): Using RTN and Field Forecasting Tool in N Management
9:20  Nicos Keable-Vezina (Field Apex): From the SCAN.AI Algorithm to the Field APEX App
9:35  Dimitris Zermas (Sentera): Using RGB Imagery to Identify N-Deficient Corn Leaves
9:50  Bob Gunzenhauser (Granular): Granular Agronomy N Management
10:05  Break
10:20  David Chaffin (YARA): Bringing Precision to Crop N Management By Integrating the 4Rs in the Digital Age
10:35  Ziru Liu (Climate): Climate FieldView N Monitoring Tool - Overview and Research
10:50  Discussion

GRANULAR Graduate Student Data Hack-a-thon

11:10  Introduction
11:15  Bob Gunzenhauser: Overview
11:20  Oklahoma State University
11:30  University of Minnesota
11:40  University of Illinois
11:50  Discussion
12:00  Lunch

SESSION 3: Open Session

1:00  Introduction
1:05  Emerson Nafziger: Estimating the Return to Variable-Rate N
1:20  Tyler Nigon: Computing Uncertainty in the Optimum N Rate Using a Generalized Cost Function
SESSION 3: Open Session (continued)

1:35 Elizabeth Eickhoff: Influence of Preplant N and Phosphorus Applications on Winter Wheat (Triticum aestivum L.) Grain Yield
1:50 Jasper Teboh: Ongoing N Use Efficiency Research on Wheat and Corn in Carrington, North Dakota
2:05 Jim Schepers: Will Bio-Stimulants Help Meet Crop N Needs?
2:20 John Jones: 4R Nutrient Stewardship for N Management: Case Studies and Ongoing Research

THE CLIMATE CORPORATION Graduate Student Poster Session

2:35 Introduction
2:40 Poster Flash Talks (in poster # sequence): One slide and one minute to introduce each poster
3:10 Coffee Break
3:30 Poster Session
5:00 Adjourn to Dinner at Shakespeare’s Pizza*
*2010 winner of “Best Bites Challenge: College Edition” on ABC’s “Good Morning America
*Located at 225 S 9th St, Columbia, MO 65201

WEDNESDAY: Oral Sessions

Statler Lounge: N214 Memorial Union, 518 Hitt St, University of Missouri

7:30 Registration, Breakfast Pastries

SESSION 4: Drone Discovery for Nutrient Management Decisions

8:00 Introduction
8:05 Kyle Holland: Crop Nutrient Recommendation Using UAV Mounted Active Optical Sensors
8:20 Mike Schlemmer: Image Processing Considerations for Improving Acquisition of Crop Physiological Parameters
8:35 Peter Kyveryga: Challenges of Calibrating/Normalizing Aerial Imagery
8:50 Nathan Stein: Challenges and Benefits of In-Field Multispectral Mapping and Scouting
9:05 Discussion

SESSION 5: Integration of Soil and Plant Sensing and Modeling

9:20 Introduction
9:40 Peter Scharf: 2Rs: Enough to Increase Corn Yield, Halve Nitrous Oxide, and Reduce Drainage Nitrate
10:10 Lance Conway: Can Planter and In-Season Sensing Be Integrated to Improve NUE?
10:25 Break, Poster Session

SESSION 6: What’s Next?

10:50 Introduction
10:55 Vision of the Future
11:05 Discussion: Emerging Issues
11:35 Presentation of Student Awards
11:45 Discussion: Next Year’s Meeting
12:00 Lunch (to stay or to go)