### Tuesday, February 26, 2019

**11:00 AM**  
Sponsor display setup begins

**12:00 PM**  
Registration and check-in

**1:00 PM**  
Welcome, announcement and introductions  
Antonio Mallarino, professor, Agronomy and Extension soil fertility specialist, Iowa State University

**1:10 PM**  
Does a healthy soil really require less fertilizer? Evidence from corn-soybean cropping systems.  
Jordon Wade, graduate student, Environment and Natural Resources, The Ohio State University; Steve Culman, assistant professor and state specialist, Soil Fertility, The Ohio State University

**1:40 PM**  
Soil enzyme activities: measurement and interpretation in soil health frameworks  
Andrew Margenot, assistant professor, Crop Sciences, University of Illinois

**2:10 PM**  
Initial evaluation of routine and soil health nutrient tests in Wisconsin  
Carrie Laboski, professor, Soil Science and Extension soil fertility specialist, University of Wisconsin

**2:40 PM**  
NAPT update and results of labs survey regarding soil health measurements  
Grant Cardon, coordinator, North American Proficiency Testing (NAPT) Program

**3:00 PM**  
Break, refreshments and visit sponsor displays

**3:15 PM**  
Evaluation of soil testing laboratory performance in the Illinois Soil Testing Association  
Robert Miller, ALP Program Technical Director, Collaborative Testing Services, Inc.

**3:45 PM**  
Lime requirement methods in the north central region  
Manjula Nathan, Extension associate professor, Plant Sciences, University of Missouri

**4:10 PM**  
Using infrared spectroscopy to measure routine soil properties  
Leonardo Deiss, postdoctoral researcher, Soil Fertility, The Ohio State University; Steve Culman, assistant professor and state specialist, soil fertility, The Ohio State University

**4:40 PM**  
Sponsor displays, hors d’oeuvres and cash bar

**6:00 PM**  
Adjourn for the day

### Wednesday, February 27, 2019

**6:30 AM**  
Breakfast buffet (provided)

**8:00 AM**  
Soil salinity, sodium adsorption ratio, and gypsum amendments  
Tom DeSutter, professor and program leader, Soil Science, North Dakota State University; Dave Franzen, professor, Soil Science and Extension soil specialist, North Dakota State University

**8:30 AM**  
Do we need to consider soil Ca:Mg ratios?  
Steve Culman, assistant professor and state specialist, soil fertility, The Ohio State University

**9:00 AM**  
Percent K saturation, CEC, and soil-test K relationships with crop yield response to K fertilization  
Antonio Mallarino, professor, Agronomy and Extension soil fertility specialist, Iowa State University; Ryan Oltmans, graduate research assistant, Agronomy, Iowa State University

**9:30 AM**  
Clay chemistry and soil-test K: Review and impact on recent North Dakota K recommendations  
John Breker, soil scientist, AGVISE Laboratories; David Franzen, professor, Soil Science and Extension soil specialist, North Dakota State University

**10:00 AM**  
Break, refreshments and visit sponsor displays

**10:15 AM**  
Mehlich-3 extracted P, Cu, Mn, and Zn: Relationships with other routine soil-test methods and with crop yield response  
Antonio Mallarino, professor, Agronomy and Extension soil fertility specialist, Iowa State University

**10:15 AM**  
Sponsors may begin removing displays

**10:45 AM**  
OSHA silica standard review for soil testing  
David Phillips, industrial hygienist, Iowa OSHA

**11:15 AM**  
ALP update and inter-lab comparison of soil test phosphorus methods in North America  
Robert Miller, ALP Program Technical Director, Collaborative Testing Services, Inc.

**11:45 AM**  
Concluding remarks  
Dave Franzen, professor, Soil Science and Extension soil specialist, North Dakota State University

**12:00 PM**  
Workshop adjourns