

GREAT PLAINS SOIL FERTILITY CONFERENCE

MARCH 10-11, 2020 • DOUBLE TREE HOTEL, DENVER, CO



2020 STANDING COMMITTEE

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Shannon Osborne, USDA-ARS

Alan Blaylock, Nutrien

David Franzen, NDSU

Raj Khosla, Colorado State University

Alan Schlegel, Kansas State University

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TUESDAY, MARCH 10, 2020

7:00 am	Continental Breakfast and Registration	Crystal II & III
7:55 am	Welcome and Announcements	<i>Alan Schlegel</i>
8:00 am	Session 1 - N/Irrigation Moderator: <i>Raj Khosla, Colorado State University</i>	Grand I & II
8:20 am	Nitrogen Fertilization and Long-Term No-Tillage Impacts on Soil Properties and Deep Soil C Storage Under Irrigation	<i>Catherine E. Stewart</i>
8:40 am	Tillage and Nitrogen Management for Irrigated Sugar Beet Production in Eastern Montana	<i>Apurba Sutradhar</i>
9:00 am	Fall and Spring Residual Nitrate-N as Affected by Irrigation and Nitrogen Management	<i>Bijesh Maharjan</i>
9:20 am	Assessment of Long-Term Effects of Tillage and Nitrogen Management Practices on Irrigated Corn Yields and Nitrogen Use Efficiencies	<i>Jorge A. Delgado</i>
9:40 am	Questions	
9:50 am	Break	Crystal II & III
10:15 am	Session 2 - Cover Crops and Nutrients Moderator: <i>Alan Blaylock, Nutrien</i>	Grand I & II
10:20 am	Soil Quality and Nitrogen Availability After Eight Years of a Mixed Cover Crop - Wheat Rotation	<i>Kristi D'Agati</i>
10:40 am	Nitrogen Availability Following Cover Crops in TX Cropping Systems	<i>Partson Mubvumba</i>
11:00 am	Phosphorus Fertilizer Management and Cover Crop Effects on Phosphorus Loss From No-Till Corn and Soybean	<i>Elliott Carver</i>
11:20 am	Long-Term Crop Rotation Diversity Effects on Soil C and N	<i>Marty Schmer</i>
11:40 am	Questions	
11:50 am	Luncheon - Sponsorship Recognition, Leadership Award and History and Future of GPSFC, Alan Schlegel	Crystal I
12:50 pm	Poster in a Minute, Student Posters	Crystal II & III
1:10 pm	Poster Viewing and Judging	<i>Poster Authors</i>
2:30 pm	Break	Crystal II & III

3:00 pm	Session 3 - Soil Fertility , Moderator: <i>Augustine Obour, KSU</i>	Grand I & II
3:05 pm	Soil Acidification of Cultivated Fields in Semiarid Montana: Adaptation and Challenges to Remediation	<i>Rick Engel</i>
3:25 pm	Effect of Foliar Zinc Application on Spring Wheat Grain Yield and Quality	<i>Fatemeh Etemadi</i>
3:45 pm	Rate and Depth of Liquid P Fertilizer Placement Affects Root Architecture and Arbuscular Mycorrhizal Fungal Associations in Grain Corn	<i>Jake Mowrer</i>
4:05 pm	Managing Nutrients in Beef Feedlot Manure – Lessons from a 45-year Field Study	<i>Xiyang Hao</i>
4:25 pm	Questions	
4:30 pm	Student Poster Awards	Crystal II & III
5:00 - 6:30 pm	Social Time - Poster Viewing and Cash Bar	Crystal II & III

WEDNESDAY, MARCH 11, 2020

7:00 am	Continental Breakfast	Crystal II & III
7:55 am	Session 4 - N Management , Moderator: <i>John Jones, F.A.R.</i>	Grand I & II
8:00 am	Nitrogen Management in Dryland Winter Wheat to Improve Grain Yield and Protein	<i>Deepak Ghimire</i>
8:20 am	N Dynamics in No-Till Crop Residues in the Northern Plains	<i>Larry Cihacek</i>
8:40 am	In-Furrow Placement of Dry Urea Products with Winter Wheat	<i>Lucas Haag</i>
9:00 am	Experiences in the Canadian Prairies with Enhanced Efficiency N Fertilizers for Winter and Spring Wheat Production Systems	<i>Brian Beres</i>
9:20 am	Questions	
9:30 am	Break	Crystal II & III
9:55 am	Session 5 - Soil Management Moderator: <i>Alan Schlegel, KSU</i>	Grand I & II
10:00 am	Assessment of Soil Testing as it Relates to Corn Ear Leaf Nutrition in the Midwest	<i>Robert Miller</i>
10:20 am	Forgiven not Forgotten: A Short History of Wind Erosion on the Canadian Prairies	<i>Frank Larney</i>
10:40 am	Strategic Tillage Effects on Crop Yield and Soil Properties and Dryland Crop Rotations	<i>Augustine Obour</i>
11:00 am	Observational and Modeling Methods to Inform Ecosystems Service Markets	<i>Stephen J. Del Grosso</i>
11:20 am	Questions	
11:30 am	Introduction of the 2022 GPSFC Chair, Wrap Up and Adjournment	<i>Alan Schlegel</i>

POSTER PROGRAM

All poster viewing will be in Crystal II & III

#	Poster Title	Author
P-1	Residue Management Effects on CO2 Loss Under Irrigated No-Till Corn Over Two Years	<i>Hanna Oleszak*</i>
P-2	Do Legume Cover Crops Help Mineralize Soil Nitrogen?	<i>Bee Chim</i>
P-3	Mixing Wheat Seed with Fertilizer in the Drill: Seedling Injury and Wheat Response	<i>Chris Weber*</i>
P-4	Does Char Reduce Ammonia Volatilization by Slowing Urea Hydrolysis in Soil?	<i>Dinesh Panday*</i>
P-5	Predicting Crop Yield Losses Due to Soil-Water Salinity: Comparison of Traditional and Alternative Approaches	<i>Ansley Brown*</i>
P-6	Nutrient Partitioning Changes in the Past 30 Years of Cotton Production	<i>Irish Lorraine B. Pabuayan*</i>
P-7	Enhanced Efficiency Nitrogen Fertilizer: Coated Urea	<i>Savannah Fahning*</i>
P-8	Results from the First Year of On-Farm N Rate and Timing Studies	<i>Vaughn Reed*</i>
P-9	Long-Term Forage Rotation Yields, Soil Water Use, and Profitability	<i>Johnathon Holman</i>
P-10	Long-Term Crop Rotation Impact on Soil Properties and Crop Response	<i>Shannon Osborne</i>
P-11	Soil Phosphorus Fractions After Long-Term Fertilizer Placement in Different Kansas Soils	<i>Marta Arruda Coelho</i>
P-12	Changes in Soil Quality During the Transition from Irrigated to Dryland Cropping Systems	<i>Agustin Nunez*</i>
P-13	Optimizing Irrigation and Fertilizer Management in Cotton to Increase Nitrogen Use Efficiency	<i>Amee Bumguardner*</i>
P-14	Enhanced Efficiency Phosphorus Fertilizers	<i>Savannah Kobza*</i>
P-15	Impact of Fertilizer Management on the Stratification of Soil Characteristics in No-Till	<i>Joao Luis Bigatao Souza*</i>
P-16	Long-Term Cover Crop and Annual Forage Effects on Soil Organic Carbon, Nitrogen Stocks, and Water Stable Aggregates in the Semiarid Central Great Plains	<i>Logan Simon*</i>
P-17	Evaluation of Cation Exchange Resin as Indicator of In-Season Potassium Supply to Soybean	<i>Diego Charbonnier*</i>
P-18	Evaluating the Trade-Offs of Cover Crops in Dryland Wheat Systems of the Colorado Plateau	<i>Lisa Eash*</i>
P-19	Nitrogen Management in Conservation Systems to Increase Use Efficiency and Cotton Production	<i>Joseph Burke*</i>
P-20	Impact of Post-Ferkes 6 Nitrogen Application in Winter Wheat Forage Production	<i>Bronc Finch*</i>
P-21	Investigating Relationships Between Haney H3A-4 And Conventional Soil Tests For Plant Nutrients in Kansas Soils	<i>Bryan Rutter*</i>
P-22	Utilizing Long-Term Organic Amendments to Improve Soil Health in Semi-Arid, Grazed Grasslands	<i>Cassidy Buchanan*</i>
P-23	Conservation Management and Nitrogen Fertilization to Enhance Soil Chemical and Biological Properties	<i>Mark McDonald*</i>
P-24	Nitrogen Fertilizer Source and Tillage Impacts on Surface and Subsoil C Under Rainfed Corn	<i>Stuart Watts*</i>
P-25	Tillage and Nitrogen Rates Influenced Wheat and Sorghum Productivity	<i>Maysoon Mikha</i>
P-26	Inter-Seeding Cover Crops Influence on Optimal Corn Nitrogen Rate in No-Till	<i>Jason Clark</i>
P-27	Sulfur Uptake and Yield Response in Corn as Affected by Fertilizer Source and Rate	<i>Tyler Husa*</i>

* Student Poster