

Tuesday, August 30, 2022

7:00 AM - 5:00 PM	Registration and Health Screening Desks Open	3rd Floor Foyer
8:00 AM - 5:00 PM	DRAINMOD 7.0 Workshop: Modeling Hydrology, Crop Yield, Nitrogen, and Phosphorus Dynamics in Drained Lands - R. Wayne Skaggs, NC State University; Mohamed Youssef, NC State University; Brian Phillips, Phillips Research and Consulting, LLC; Manal Askar, USDA ARS (Ticket Required, Additional Fees Apply)	3rd Floor Dubuque
5:00 PM - 7:00 PM	Welcome Reception	3rd Floor Des Moines Exhibit Hall

Wednesday, August 31, 2022

7:30 AM - 5:00 PM	Registration and Health Screening Desks Open	3rd Floor Foyer
7:30 AM - 8:30 AM	Morning Coffee and Light Breakfast: Exhibit Hall and Poster Presentations Open	3rd Floor Des Moines Exhibit Hall
8:30 AM - 10:00 AM	Opening General Session and Panel Discussion - Richard Cooke, University of Illinois; Dennis Today, USDA Midwest Climate Hub; Chuck Brandel, ISG; Melissa Luymes, Land Improvement Contractors of Ontario	2nd Floor Iowa Ballroom
10:00 AM - 10:30 AM	Morning Break: Exhibit Hall and Poster Presentations Open	3rd Floor Des Moines Exhibit Hall

Concurrent Sessions

	10:30 AM	10:53 AM	11:16 AM	11:39 AM
3rd Floor Cedar Rapids Management of Drainage Systems	History of Subsurface Drainage Systems and Drainage Research in Iowa - Rameshwar Kanwar, Iowa State University	Supporting Drainage Authorities and Maintaining Drainage Systems by Applying Multi-Disciplinary Resources - Ivan Droessler and Spencer Pech, ISG	Water Dynamics of Managed and Unmanaged Agricultural Drainage Ditches in a Cold Climate - Jeff Strock, University of Minnesota	Design and Construction of a Large Drainage Ditch Pumping Station - Jacob Rischmiller, ISG
3rd Floor Council Bluffs Water Quality and Drainage - Saturated Buffers and Hybrid Projects	Assessing the Design Criteria of Saturated Buffers - Yousef Abdalaal, Michigan State University	Performance of Saturated Riparian Buffers in Iowa Across Eighteen Site-Years - Gabriel Johnson, Iowa State University	Integrating Drainage Improvements and Wetland Restoration in Iowa: Environmental Impacts of Improved Drainage and Targeted Wetland Restoration - William G. Crumpton, Iowa State University	Hybrid Drainage Practices to Improve Water Quality - Spencer Pech and Bethany Brittenham, ISG
3rd Floor Davenport Edge-of-Field and Other Conservation Drainage Practices for Water Quality - Innovation	Achieving Multipurpose Water Management Goals by Balancing Tried and True Practices with New Techniques - Mark Origer, ISG	Incorporating a Hybrid Drainage and Wetland Design Project System into Engineering Teaching - Xinhua Jia, North Dakota State University	The Impact of Drainage Water Recycling on Reduction of Nitrogen, Phosphorous, and Sediment Losses from a Drained Agricultural Field in Eastern North Carolina - Hossam Moursi, North Carolina State University	Learning Curve: Collaboration on Drainage Innovation at Huronview Demo Farm, Clinton Ontario - Melissa Luymes, Land Improvement Contractors of Ontario
3rd Floor Dubuque Drainage System Design, Installation, and/or Performance - Pipe Materials and Installation	Design and Construction of Corrugated HDPE and PP Pipe Agricultural Mains with Shaped Trench Bottoms - Joseph A Babcanec, Advanced Drainage Systems	Choice of Pipe Material Affects Drainage System Performance and Cost - Ehsan Ghane, Michigan State University	DRAINMOD Simulations in a Field with Asymmetrical Drainage System - Shiv Prasher, McGill University	Shallow Drainage Furrow and Tile Water Management System Effects on Soil Water Conditions and Crop Yield in Eastern North Carolina - Mitchell Watkins, North Carolina State University

12:00 PM - 1:30 PM Luncheon and Speaker - Rob Burtonshaw, Farm Services, Ltd.

Concurrent Sessions

	1:30 PM	1:53 PM	2:16 PM	2:39 PM
3rd Floor Cedar Rapid Drainage Policy and Administration	C.G. Elliott and the Rise of Specialized Drainage Knowledge in the Federal Government, 1902-1914 - Anthony Carlson, School of Advanced Military Studies	The History of Lake Drainage in Iowa - Joe Otto, Soil and Water Conservation Society	From Practice to Policy: Advancing Edge of Field Conservation Practices - Clare Lindahl, Soil and Water Conservation Society	Streamlining the Flood of Paperwork after a Flood - Drainage Repairs in Redwood County, Minnesota - Tom Berry, Stantec
3rd Floor Council Bluffs Edge-of-Field and Other Conservation Drainage Practices for Water Quality - Bioreactor Woodchips	Can Woodchip Bioreactors Exceed Water Quality Goals by Denitrifier Enhancement or Carbon Dosing? - Gary Feyereisen, USDA ARS	The Effect of Three Types of Amendments on Nutrient Removal from Tile Drainage Water Using Denitrifying Woodchip Bioreactors - Arvydas Povilaitis, Vytautas Magnus University	Particle Characterization of a Failed Denitrifying Woodchip Bioreactor - Shelby Duncan and John McMaine, South Dakota State University	Digging in to Denitrifying Bioreactor in Situ Bulk Density - Laura Christianson, University of Illinois
3rd Floor Davenport Drainage Tools and Modeling - Phosphorous Models	Predicting Hydrology and Phosphorus Transport from a Subsurface-Drained Field Using RZWQM2-P - Md Sami Bin Shokrana, Michigan State University	Modeling Phosphorus Losses from Tile-Drained Cropland using RZWQM2-Phosphorus - Zhiming Qi, McGill University	An Introduction to P-Trap Software for Designing and Evaluating Phosphorus Removal Structures - Chad Penn, USDA ARS	Accuracy of WaSim and DRAINMOD Models for Subsurface Drainage Design and Analysis in a Data-Scarce Environment - Tafadzwa Mabhandhi, University of KwaZulu-Natal and International Water Management Institute
3rd Floor Dubuque Drainage Data Acquisition and Management	Putting GIS to Work for You: The Three-Fold Benefit of Drainage Data Acquisition and Management - Chuck Brandel, ISG	Prioritizing Maintenance Work in Agricultural Drainage Ditches: A Procedure - Daniel Bernardo Aviles Ribera, San Simon University	Evaluating Sampling Strategies and Phosphorus Transport Dynamics Using High-Frequency Monitoring of Drainage Discharge - Babak Dialameh, Michigan State University	Global Significance of Filling Materials for Nitrate Removal in Denitrifying Bioreactors Revealed by Meta-Analysis - Yuchuan Fan, University of Florida

3:00 PM - 3:30 PM Afternoon Break: Exhibit Hall and Poster Presentations Open

Concurrent Sessions

	3:30 PM	3:53 PM	4:16 PM	4:39 PM
3rd Floor Cedar Rapids Drainage Tools and Modeling - Decision Tools	Drainage Design Tools: Creating Topologically-Sound Subsurface Drainage Networks - Falasy Anamelechi, University of Illinois at Urbana-Champaign	Designing Better Drainage Systems Through Advanced Technologies - Jacob Rischmiller, ISG	Nutrient Tracking Tool (NTT): Evaluation of Conservation Practices of Tile Drainage Systems - Ali Saleh, Tarleton State University	A Decision-Support Tool to Quantify the Nitrate Load Reduction of Shallow Drains in Subsurface Drainage Design - Ehsan Ghane, Michigan State University
3rd Floor Council Bluffs Edge-of-Field and Other Conservation Drainage Practices for Water Quality - Bioreactor Modifications	Denitrification Bioreactors as a Structural Water Quality Measure at Catchment Scale: Performance and Lessons Learned - Gary Feyereisen, USDA ARS	The Magic of Bioreactors Arrives in Spain for Denitrification of Saline Drainage under Semi-Arid Conditions - Carolina Diaz-Garcia, University of Illinois	Modification and Monitoring of a Dual-Chamber Denitrification Bioreactor with a Surface Water Pumping System - Lindsey Hartfel, Iowa State University	Long-Term Nitrate Removal Performance of Four Denitrifying Woodchip Bioreactors in Eastern South Dakota - John McMaine, South Dakota State University
3rd Floor Davenport Water Quality and Drainage - Nutrient Transport	Source and Transport Controls on Nutrient Delivery to Tile Drains - Mark Williams, USDA ARS	Phosphorus Desorption Kinetics under Flowing Conditions: How Physical and Chemical Processes Interact to Control Concentrations and Load - Chad Penn, USDA ARS	Source Contributions to Subsurface Drain Dissolved Phosphorus Losses in Ohio - Will Osterholz, USDA ARS	Effects of Re-Drainage on Nutrient Leaching and Crop Yield - Ingrid Weststrom and Abraham Joel, Swedish University of Agricultural Sciences

5:00 PM - 6:00 PM Early Career Mixer

6:00 PM - 8:00 PM Drainage Hall of Fame Awards Banquet (Ticket Required, Additional Fees Apply)

		Lobby Level Windows on 7th
		2nd Floor Iowa Ballroom

Thursday, September 1, 2022

8:00 AM - 5:00 PM	Registration and Health Screening Desks Open			3rd Floor Foyer
8:00 AM - 8:30 AM	Morning Coffee and Light Breakfast			3rd Floor Foyer
8:30 AM - 10:00 AM	Concurrent Sessions			
	8:30 AM	8:53 AM	9:16 AM	9:39 AM
3rd Floor Cedar Rapids Modeling and Measuring the Water Balance	Simulating Historical Changes of Water Table Depth in the US Corn Belt - <i>Sotirios Archontoulis, Iowa State University</i>	Impacts of Subsurface Drainage on Water Yield and Opportunities for Controlled Drainage in Eastern South Dakota - <i>John McMaine, South Dakota State University</i>	Investigation of the Contribution of Snowmelt to Subsurface Drainage and Surface Runoff in a Quebec Cropland - <i>Ziwei Li and Zhiming Qi, McGill University</i>	Development of a New Macropore Flow Model for DRAINMOD - <i>Shiv Prasher, McGill University</i>
3rd Floor Council Bluffs Site Specific - Edge-of-Field and Other Conservation Drainage Practices for Water Quality - Controlled Damage	Reduction of Nitrate Leaching and Threats to Surface Water under Conservation Tillage in an Edge of Field Monitoring at the Micro-Catchment Scales - <i>Zouheir Massri, Michigan State University</i>	Impact of Controlled Drainage on Crop Yield Including Within-Field Variability - <i>Jane Frankenberger, Purdue University</i>	Drainage Water Management in Ohio - Lessons Learned and Future Direction - <i>Vinayak Shedekar, The Ohio State University</i>	Agricultural Water Management with Controlled Drainage and Subirrigation: Results from a Nordic Field in Level Terrain - <i>Minna Mäkelä, Finnish Field Drainage Association</i>
3rd Floor Davenport Soils - Barriers to Edge-of-Field and Other Conservation Drainage Practice Implementation	Threading the Needle: Getting Conservation Practices in Place - <i>Bethany Brittenham, ISG</i>	Implementation of Edge-of-Field Practices in the Southfork Watershed in Central Iowa: Perspectives from a Farmer - <i>Jacob Bolson, Beaver Creek Food & Fibre</i>	Batch and Build: A Case Study in Alternative Practice Delivery to Address Barriers and Increase Adoption - <i>Keegan Kult, Agricultural Drainage Management Coalition</i>	Expanding Opportunities for Targeted Water Quality Wetlands in Iowa - <i>Matt Lechtenberg and Shane Wulf, Iowa Department of Agriculture and Land Stewardship</i>
3rd Floor Dubuque Watersheds - Edge-of-Field and Other Conservation Drainage Practices for Water Quality	Assessment of Stacked Conservation Practices on Edge-of-Field Subsurface Nitrogen and Phosphorus Loss at a Field in Ohio - <i>Manal Askar, USDA ARS</i>	Eating the Metaphorical Elephant: Meeting Nitrogen Reduction Goals in Upper Mississippi River Basin States - <i>Christopher Hay, Iowa Soybean Association</i>	Water Quality Monitoring for Targeted Implementation of Water and Nutrient Retention Measures in Latvia: An Example of the LIFE GOODWATER IP Project - <i>Ainis Lagzdins, Latvia University of Life Sciences and Technologies</i>	Building Trust While Understanding Complexity: Process Models for Edge-of-Field Practices - <i>Catherine DeLong, Iowa State University Extension and Outreach</i>
10:00 AM - 10:30 AM	Morning Break: Exhibit Hall and Poster Presentations Open			3rd Floor Des Moines Exhibit Hall
10:30 AM - 12:00 PM	Concurrent Sessions			
	10:30 AM	10:53 AM	11:16 AM	11:39 AM
3rd Floor Cedar Rapids Climate Resilience and Drainage	Climate Change, Agricultural Drainage and Water Storage in Minnesota - <i>Joe Magner, University of Minnesota</i>	The Frontier of Drainage Water Recycling - <i>Christopher Hay, Iowa Soybean Association</i>	The Effect of Drainage Water Recycling on Corn and Soybean Yields and Water Conservation for a Drained Field in Eastern North Carolina - <i>Hossam Moursi, North Carolina State University</i>	
3rd Floor Council Bluffs Site Specific - Edge-of-Field and Other Conservation Drainage Practices for Water Quality - Ditches	Effect of Vegetative Filter Strips on Sediment Deposition in Drainage Ditches in Littoral Zone of Lake Sainte-Pierre in Quebec, Canada - <i>Zhiming Qi, McGill University</i>	Seasonal and Annual Nutrient Removal from Agricultural Drainage Ditches Using Low-Grade Weirs - <i>Andry Z Ranaivoson, University of Minnesota</i>	Oxbows and Drainageways as New Tile Drainage Edge-of-Field Practice Opportunities - <i>Keith Schilling, Iowa Geological Survey and Matthew Streeter, University of Iowa</i>	Seepage Considerations in Drainage Canal Design for Groundwater Quality - <i>R Caleb Bruhn, University of Illinois Urbana-Champaign</i>
3rd Floor Davenport Soils - Water Quality and Drainage - Soil Interaction		Consistent Fertilizer Application Increased Corn Yields Without Change in Nitrate Export - <i>Chelsea Clifford, Iowa State University</i>	Improving Ecohydrological Simulations by Incorporating Accurate Tile Drainage and Fertilizer Application Rate Data: A Case Study of Central Iowa - <i>Tássia Brighenti and Philip Gassman, Iowa State University</i>	Characterization and Identification of Microbial Communities in Agricultural Drainage Ditches - <i>Hao Wang, University of Minnesota</i>
3rd Floor Dubuque Water Quality and Drainage	Management of Drainage Water in the Holland Marsh of Ontario for Environmental and Agronomic Benefits - <i>Chandra Madramootoo, McGill University</i>	Coordinated Site Network for Studying the Impacts of 4R Nutrient Management on Crop Production and Nutrient Loss - <i>Matt Helmers, Iowa State University</i>	Beneficial Practices for Soil and Water Management in Undulating Soils in Southwestern Manitoba, Canada: A Research and Demonstration Project - <i>David Whetter, PBS Water Engineering</i>	The Long-Term Results of the Agricultural Runoff Monitoring Programme in Latvia - <i>Ainis Lagzdins, Latvia University of Life Sciences and Technologies</i>
12:00 PM - 1:30 PM	Luncheon and Speaker - <i>Charlotte Kjaergaard, NovaDrain ApS</i>			2nd Floor Iowa Ballroom
1:30 PM - 3:00 PM	Concurrent Sessions			
	1:30 PM	1:53 PM	2:16 PM	2:39 PM
3rd Floor Cedar Rapids Site Specific - Edge-of-Field and Other Conservation Drainage Practices for Water Quality - Field Scale	Soil Health and Drainage Water and Nutrient Losses - <i>Vinayak Shedekar, The Ohio State University</i>	Do Newly Drained Fields Need Revised Fertility Recommendations? - <i>Lindsay Pease, University of Minnesota</i>	Long Term Benefits of Controlled Drainage - <i>Chandra Madramootoo, McGill University</i>	There is No Such Thing as a Quick Fix: Travel Times to Subsurface Drains - <i>Eileen Kladko, Purdue University</i>
3rd Floor Council Bluffs Soils - Drainage Tools and Modeling - Water Quality	Modeling Drained Pothole Ponding Durations with SPAW Software - <i>Donald D Etlar, Bolton & Menk, Inc.</i>	XPSWMM and ICM Modeling: Leveraging Support for Water Quality Projects - <i>Bailey Griffin, ISG</i>	Assessment of the Macropore Component of RZWQM2 in Simulating Hourly Subsurface Drainage and Peaks - <i>Zhiming Qi, McGill University</i>	Performance of EnDrain in Modeling Agricultural Subsurface Drainage Systems in KwaZulu-Natal, South Africa - <i>Aidan Senzanje, University of KwaZulu-Natal</i>
3rd Floor Davenport Revisiting Drainage Ditch Systems - Challenges and Emerging Solutions for Managing Water Volume and Protecting Water Quality	History, Science and Benefits of Two-Stage and Self-Forming Ditches - <i>Jonathan Witter, Ohio State University Agricultural Technical Institute</i>	Implementing and Maintaining Two-Stage Ditches, A County Engineer's Perspective - <i>Mike Pniewski, County Engineer Lucas County, Ohio</i>	Promoting Adoption of Ditch Conservation Practices: Lessons Learned from Outreach Efforts and H2Ohio State Funding in Ohio - <i>Jessica D'Ambrosio, The Nature Conservancy</i>	Panel Discussion on Revisiting Drainage Ditch Systems with Session Speakers
3:00 PM - 3:30 PM	Afternoon Break: Exhibit Hall and Poster Presentations Open			3rd Floor Des Moines Exhibit Hall
3:30 PM - 5:00 PM	Closing General Session - <i>Chandra Madramootoo, McGill University</i>			2nd Floor Iowa Ballroom

Friday, September 2, 2022

7:00 AM - 8:00 AM	Registration and Health Screening Desks Open			3rd Floor Foyer
8:00 AM - 4:00 PM	Tour #1: Field to Stream: Researching Conservation Drainage Performance (Full-Day) (Meet at 7:40 AM) (Ticket Required, Additional Fees Apply)			Meet in Hotel Lobby
8:00 AM - 4:00 PM	Tour #2: Farm to City: Scaling Up Implementation of Nutrient Reduction Practices (Full-Day) (Meet at 7:40 AM) (Ticket Required, Additional Fees Apply)			Meet in Hotel Lobby
8:00 AM - 12:00 PM	Tour #3: Farm to City: Scaling Up Implementation of Nutrient Reduction Practices (Half-Day) (Meet at 7:40 AM) (Ticket Required, Additional Fees Apply)			Meet in Hotel Lobby