

AGENDA – Final

North Central Extension and Research Activity (NCERA) 217, and
Agricultural Drainage Management Systems Task Force (ADMS TF)

Champaign IL, March 29-30, 2017

Wednesday, March 29

Time	Topic	Speaker(s)
10:00	“Drainage Innovations: Telling the Stories” extension and outreach forum (presentations and discussion). Everyone is invited.	Speakers: Jane Frankenberger, Chris Hay, Jeppe Kjaersgaard, Lindsay Pease, Laura Christianson
Noon	Lunch (included for those preregistered)	
1:00	ADMS Meeting officially starts. Welcome, Introductions by all attendees	Ruth Book, all
1:20	NRCS – Discussion of saturated buffers and other standards	Ruth Book and other NRCS staff
1:45	ADMC - Update from industry	Charlie Schafer, others
2:00	Using LiDAR data for drainage planning and design (including discussion)	Rabin Bhattarai
2:15	Nutrient Reduction Strategies and the role of drainage practices (including discussion)	Reid Christianson
3:00	BREAK	
3:20	US EPA Update	Katie Flahive
3:35	Mississippi Basin / Gulf Hypoxia Initiative: Precision Conservation Blueprint v1.5	Gwen White
3:50	Drainage Research at ARS - Minnesota	Gary Feyereisen
4:05	International Drainage Symposium Report	Gary Sands
4:20	2018 meeting locations; Wrap-up and logistics	Jane Frankenberger
4:30	Poster introductions	Gary Feyereisen
4:45	Break	
5:00	Reception and Poster Session. See list of posters next page.	

Thursday, March 30

Time	Topic	Speaker(s)
7:45	NCERA-217 Business Meeting (<i>for NCERA-217 members</i>)	
8:15	<i>Break, Attendees not involved with NCERA-217 arrive</i>	
8:30	Welcome & Introductions	Gary Feyereisen
8:45	Evaluating Benefits of Drainage Water Recycling for Crop Production in Iowa	Chris Hay
9:00	Crop Water Needs for Subirrigation in the Red River Valley, MN	Jeppe Kjaersgaard
9:15	Challenges in drainage water managements	Xinhua Jia
9:30	Missouri Drainage Update	Kelly Nelson
9:45	Comparing nutrient transport in drainage water at two sites with varying managements	Ehsan Ghane
10:00	BREAK	
10:30	Edge-of-Field Phosphorus Reduction Practices in Ohio	Lindsay Pease
10:45	Assessing Benefits of Drainage Main Redesign	Matt Helmers
11:00	Research on Mapping Subsurface Drainage with Geophysics, Drones, and Aircraft/Satellite Imagery	Barry Allred
11:15	Update on long-term SEPAC drainage project	Eileen Kladvko
11:30	Update of new drainage research projects in Illinois	Laura Christianson
11:45	Wrap Up, Adjourn	
Noon	Lunch (Included for those pre-registered)	
1:30	<i>Field Visit to University of Illinois Agricultural Engineering Research Farm</i>	Rabin Bhattarai

Posters

1. Allan Hertzberger, Graduate Research Assistant University of Illinois at Urbana Champaign Department of Crop Sciences. **The MANAGE Water Quality Database: Development of a New Drainage Nutrient Concentration Component**
2. Amanda Locker, Graduate Research Assistant, Purdue University. **Impact of Controlled Drainage on Crop Yields.**
3. Bianca Bailey, Graduate Student UIUC. **Mitigating Phosphorus loss with Drainage Control Structure Sorption Filters.**
4. Charlotte Lee, Graduate Student, Purdue University. **Modeling regional water deficit and drainage water availability for evaluating the feasibility of Drainage Water Recycling.**
5. Emily Bock, Graduate Research Assistant, Virginia Tech. **Opportunities and Challenges for Denitrifying Bioreactors in the Mid-Atlantic.**
6. Giorgi Chighladze, Data Manager and Analyst, Iowa State University. **Transforming Drainage Research Data: Spatio-Temporal Variability.**
7. Hannah Dougherty, Graduate Research Assistant, University of Illinois. **Evaluation of denitrifying bioreactor performance with use of flow-routing baffles.**
8. Hanseok Jeong, Visiting scholar, Department of Agricultural and Biological Engineering, University of Illinois at Urbana-Champaign. **Analysis of nitrogen fertilizer application rate and timing on nitrate losses and crop yields in tile-drained fields in Illinois.**
9. Katie Schwaegler, Undergraduate Research Assistant- Iowa State University. **Spatial variability in nitrate load in the Corn Belt.**
10. Morgan Davis, PhD Candidate Iowa State University. **Nitrous Oxide Emissions from Saturated Riparian Buffers.**
11. Nidhi Adhikari, Graduate Research Assistant, Department of Agricultural and Biological Engineering, University of Illinois. **A LiDAR extraction plugin for QGIS.**
12. Paul Davidson, Assistant Professor, Ag & Bio Engineering, University of Illinois. **Effect of Winter Cover Cropping Practices on Maize Yield and Nutrient Cycling.**
13. Samaneh Saadat, PhD Candidate at Purdue University. **Controlled drainage effects on annual drain flow and nutrient losses.**
14. Stuart Smith, Research Assistant Purdue University. **Evaluating Management Options for a Restored Wetland Using VIC.**
15. Tyler Groh, Graduate Research Assistant, Iowa State University. **Denitrification in Saturated Riparian Buffers.**

16. Shiyang Li, Post-doctoral Associate, University of Illinois. Effect of passive heating on the performance of woodchip bioreactors.