2021 Drainage Tools Workshop Agenda
August 24, 2021

All times are in Eastern Time

Time (ET)	Topic	Presenter
8:55 am — 9:00 am	**Log-in to Zoom** *Type questions in the Q&A section*	
9:00 am — 9:10 am	**Welcome and Introduction** Overview of tools to inform drainage.	*Dr. Ehsan Ghane*
9:10 am — 9:20 am	**Drainage Design as a Nutrient Reduction Strategy** Effect of drain spacing on crop yield and water quality.	*Dr. Ehsan Ghane*
9:20 am — 9:30 am	**Drain Spacing Tool** Learn how the tool works to estimate the optimum drain spacing that maximizes economic return on investment.	*Dr. Ehsan Ghane*
9:30 am — 9:50 am	**Demonstration of the Drain Spacing Tool** Learn the basics of using the tool to estimate the optimum drain spacing. Learn how soil property and economics affect drainage design.	*Dr. Ehsan Ghane*
9:50 am — 10:00 am	**Controlled Drainage Suitability Tool** **Subirrigation Suitability Tool** Learn to identify land in the Midwest USA with a high chance of being suitable for controlled drainage or subirrigation.	*Dr. Jane Frankenberger*
10:00 am — 10:10 am	**Questions and Answers** *Type questions in the Q&A section*	
10:10 am — 10:20 am	**Break**	
10:20 am — 10:40 am	**Drainage Water Recycling** Learn about the features, site suitability, crop yield benefit, profitability, and water-quality benefit of drainage water recycling.	*Dr. Jane Frankenberger*
10:40 am — 11:00 am	**EDWRD Tool (Evaluating Drainage Water Recycling Decisions)** Learn the basics of using the tool to size a pond for drainage water recycling. Learn how to interpret the tool's results to make an informed design decision.	*Ben Reinhart*
11:00 am — 11:10 pm	**Questions and Answers** *Type questions in the Q&A section*	

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11:10 am — 11:35 am	**Drainage Design: Choice of Drain Depth** Learn about the site suitability, crop yield benefit, profitability, and water-quality impact of shallow drains.	*Dr. Ehsan Ghane*
11:35 am — 11:50 am	**Shallow Drains Tool** Learn to use the tool to make an informed decision about drain depth. The tool estimates the nitrate load reduction of shallow drains compared to deep drains.	*Dr. Ehsan Ghane*
11:50 am — 12:00 pm	**Questions and Answers** *Type questions in the Q&A section*	
12:00 pm — 1:30 pm	**Lunch Break**	
1:30 pm — 1:50 pm	**Reducing Phosphorus loss with P-Filters** Learn about the features, site selection, maintenance, installation, and water-quality benefit of P-filters.	*Dr. Chad Penn*
1:50 pm — 2:10 pm	**P-TRAP Phosphorus Transport Reduction App** Learn the basics of using the P-TRAP app to design a P-filter for reducing phosphorus loss in drainage discharge.	*Dr. Chad Penn*
2:10 pm — 2:20 pm	**Questions and Answers** *Type questions in the Q&A section*	
2:20 pm — 2:25 pm	**Break**	
2:25 pm — 2:30 pm	**Drain Sedimentation Tool** Learn to use the tool to identify soil at risk of clogging with sediments.	*Dr. Ehsan Ghane*
2:30 pm — 2:45 pm	**Nutrient Loss Calculator** Learn how to use the tool to get an idea of nutrient loss from your tile, so you can improve profitability and downstream water quality. Listen to real-world examples of how producers are modifying their farming practices based on the tool's results.	*Dr. John McMaine*
2:45 pm — 3:00 pm	**Questions and Answers** *Type questions in the Q&A section* *Questions for any of the speakers are welcome*	
3:00 pm — 3:05 pm	**Online Evaluation and Adjourned**	

Presenters:

Ehsan Ghane: Assistant Professor and Extension Specialist, Michigan State University

Jane Frankenberger: Professor, Purdue University

Ben Reinhart: Director of Operations and Ag Water Management, Clark Farm Drainage

Chad Penn: Soil Scientist, USDA Agricultural Research Service

John McMaine: Assistant Professor, South Dakota State University