

2023 Drainage Workshop

Designing & Installing Subsurface Agricultural Drainage Systems

February 1-3, 2023

From this ...

To This!



Workshop Sponsors



Greenley Research Center
University of Missouri



United States Department of Agriculture
Natural Resources Conservation Service



Featured Speakers



Dr. Kelly Nelson

Kelly Nelson is a research agronomist based at the Greenley Research Center, Novelty, MO.



Dr. Allen Thompson

Allen Thompson is a professor in the Department of Biomedical, Biological and Chemical Engineering at the University of Missouri.

Workshop Location



**Town & Country
Inn and Suites**

110 N 54th St • Quincy, IL
(217) 214-0400

Workshop Agenda

WEDNESDAY, FEBRUARY 1

- Noon Registration
- 1:00pm Welcome and Introductions
- 1:15pm Introduction to Drainage Water Management
- 1:30pm MU Drainage and Sub-irrigation (MUDS) Research Update
- 2:15pm Water Movement in Soils
- ♦ Processes and Terminology
 - ♦ Important Soil Properties
 - ♦ Hydraulic Conductivity
 - ♦ Soil Water Concepts
- 3:15pm Break
- 3:30pm Engineering Standards and Specs
- Planning Considerations
- ♦ Needs: Surface or Subsurface Drainage, Water Table Management, or Nutrient Management
 - ♦ System Layout & Outlet Locations
 - ♦ Utilities Determination - One-Call
- Subsurface Drain Design, Pipe Capacity
- ♦ Class Problem 1, Using Design Tables and Standards
- 5:00pm Adjourn for the day

THURSDAY, FEBRUARY 2

- 8:00am Class Problem 2 & 3 - Using Design Tables and Standards
- 8:45am Lateral Design
- 9:15am Making a Topographic Map from Survey Points
- 9:45am Break
- 10:00am Class Problem 4
- 11:15am Planning Considerations
- ♦ The importance of an On-Site Evaluation of Soil Properties
 - ♦ Wetland Determination
 - ♦ Web Soil Survey
- 12:00pm Lunch Provided
- 1:00pm Class Problem 5 – System Design

Workshop Agenda (Cont.)

THURSDAY, FEBRUARY 2 (Cont.)

- 2:30pm Class Problem 5 – Review & Discussion
- 3:00pm Break
- 3:15pm TSP Provider Training
- 3:45pm Class Problem 6
- ♦ Field Topographic Map
 - ♦ Soils, Web Soil Survey
- 5:00pm Adjourn for the day

FRIDAY, FEBRUARY 3

- 8:00am Pipe Installation Considerations
- 8:30am Continue work on Design Problem 6
- 9:45am Break
- 10:00am Presentation and Summary of Problem 6 Drainage Design
- 11:00am Nitrogen Treatment for Drainage Systems
- 12:00pm Lunch Provided
- 1:00pm An Overview of GPS Systems
- 3:00pm Final Questions, Summary & Evaluation

We will provide:

- ♦ Resource/Reference Manual
- ♦ Engineering Scales
- ♦ Lunches and breaks

You will need to bring:

- ♦ Notepaper
- ♦ Pen or pencil
- ♦ Calculator

Registration

The registration fee for this Workshop is \$65 per person. LICA members receive a \$15 discount per registrant. No on-site registration will be available. Space is limited. Registrations with full, non-refundable payment must be received by **January 23, 2023**.

Register online (<https://mlca.org/events/>) or make check payable to:

Missouri LICA
1101 West High Street
Jefferson City, MO 65109

TO REGISTER BY PHONE OR FOR QUESTIONS:

Call Debbie @ 573-634-3001