



**Water Management Systems
to Help Balance Production
and Environmental
Objectives**

Overholt Drainage School

March 23-27, 2009

Wooster, Wayne County, Ohio

- ▶ **Laser Surveying, Topographic Mapping, & GPS Mapping**
- ▶ **Agricultural Subsurface Drainage Systems Design**
- ▶ **Drainage Water Management: Controlled Drainage System Design and Installation**

Sponsored by: Overholt Drainage Education and Research Program, Food, Agricultural, and Biological Engineering, OSU Extension, OARDC, The Ohio State University, in cooperation with USDA-NRCS, USDA-ARS, Soil and Water Conservation Districts, Ohio Land Improvement Contractors and Associates

ADVANCED REGISTRATION REQUIRED

Register for full program or either of two sessions. Registration includes: tuition, lunches, refreshments, materials, supplies, manuals, guides, design notebooks, certificates of completion, etc.

Deadlines: Early registration March 11.
Final Registration March 18.

Confirmations/directions mailed upon receipt of registration/payment. Partial refund if cancellation made by March 11.

Bring: calculator; warm clothes and boots for field.

Programming Objective: Continuing education for land improvement contractors, soil and water conservation technicians, farmers, engineers, consultants, sanitarians, and others interested in advancing their knowledge of basic concepts, principles, and skills related to the

purpose, design, layout, construction, and management of Soil and Water Conservation Systems, with emphasis on Water Management and Water Quality. Instructors include Land-Grant University faculty/staff, SWCD/NRCS engineers and technicians, ARS engineers and scientists, and experienced OLICA contractors and associates.

SESSION I: March 23-24 1 1/2 days

Laser Surveying, Topographic Mapping, & GPS Mapping

Extensive fieldwork, classroom instruction, evening work sessions. Basic knowledge of elevations required.

Monday noon to 9:00 PM

Tuesday 8:00 AM to 5:00 PM

- ❑ Overview of Laser Surveying; Lenker Rod
- ❑ Field Notes Laser/ Using Lenker Rod
- ❑ Hands-on Field Layout and Survey
- ❑ Field Notes/Interpretation of Data
- ❑ Topographic Features and Contours, Plotting Field Data, Drawing Contours
- ❑ Developing Topographic Map
- ❑ Using Topographic Map Information
- ❑ Computer Applications
- ❑ GPS Applications, Drainage Systems Mapping & Demonstrations

SESSION 2: March 24-27 2 1/2 days

Part 1: Agricultural Subsurface Drainage, Design and Installation

Extensive classroom instruction, work sessions, field trip possible, evening work sessions, programs. Working understanding of drainage and leveling required.

Tuesday 6:00-9:00 PM; Wednesday 8:00 AM to 9:00 PM; and Thursday 8:00 AM to 5:00 PM

- ❑ Agricultural Drainage Concepts; Soils Basics
- ❑ Drainage Guides
- ❑ Subsurface Drainage Design Concepts, Procedures, Sizing Laterals and Mains
- ❑ Design Exercises, Work Sessions
- ❑ Design Problem for Monday's Field Site

- ❑ Benefits and Economics of Drainage
- ❑ Environmental Considerations
- ❑ Installation Basics, Methods, Research
- ❑ Design/Installation - Common Mistakes

Part 2: Drainage Water Management: System Design, Installation and Management

Thursday 6:15-9:00 PM; Friday 8:00 AM to noon

- ❑ Midwest Agricultural Drainage Water Management Initiative, Concepts/Practices
- ❑ Controlled Drainage Concepts, Purpose, Benefits
- ❑ Regional Projects and Research
- ❑ Controlled Drainage Design
- ❑ Considerations for Laterals and Mains
- ❑ Drain Spacing and Depth Alternatives
- ❑ Design Problems, Layout
- ❑ Installation, Operation and Management
- ❑ Other Applications - Drainage Collection and Pumping Plants; Outlets and Buffers; Liquid Manure Application; Bio-Reactors, etc.

Questions/Meeting Location/Hotel List?

Contact Larry C. Brown at 614.292.3826 or brown.59@osu.edu

The Overholt Drainage School is funded, in part, by registration fees and donations to the Overholt Drainage Education and Research Program Endowment at The Ohio State University. Please consider adding a small donation to the registration.

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