



Systems to Balance Production and Environmental Objectives

Overholt Drainage School March 17-21, 2008

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

Hancock Agricultural Service Center, Findlay, Ohio

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 5-day program or a combination of individual sessions. Registration includes: tuition, lunches, refreshments, materials, supplies, manuals, guides, design notebooks, certificates of completion, etc., as appropriate for session.

Deadlines: Early registration March 3.

Final Registration March 10.

Confirmations/directions mailed upon receipt of registration/payment. Partial refund if cancellation made by March 10.

Bring: calculator; warm clothes, boots for field.

Enrollment limited: No walk-ins please.

Program Objective: Provide 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 17-18 1 ½ days **Laser Surveying, Topographic Mapping, & GPS Mapping**

Monday 9:00 AM to 9:00 PM

Tuesday 8:00 to 11:50 AM

- ❑ 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

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

SESSION 2: March 18-20 2 days **Agricultural Subsurface Drainage Design, & Installation**

Tuesday 1:15 to 9:00 PM; Wednesday 8:00 AM to 9:00 PM; Thursday 8:00 to 11:50 AM

- ❑ 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 and Methods
- ❑ Proper Installation and Common Mistakes
- ❑ Research on Pull-Behind Drainage Plows
- ❑ Other Drainage Design Concepts

Extensive classroom instruction, work sessions, minor fieldwork, evening work sessions, programs. Working understanding of drainage and leveling required.

SESSION 3: March 20-21 1 ½ days **Drainage Water Management: Controlled Drainage System Design and Installation. Agricultural Constructed Wetlands**

Thursday 1:15 PM to 9:00 PM

Friday 8:00 AM to 3:00 PM

- ❑ Midwest Agricultural Drainage Water Management Initiative, Concepts/Practices
 - ❑ Controlled Drainage Concepts, Purpose, Benefits
 - ❑ Regional Projects; Research Reports
 - ❑ Controlled Drainage Design
 - ❑ Sizing Laterals and Mains
 - ❑ Design Problems, Layout
 - ❑ Installation, Operation and Management
 - ❑ Drainage Collection and Pumping
 - ❑ Drain Spacing and Depth Alternatives
 - ❑ Opportunities with Drainage Management
 - ❑ Drainage Outlets with Buffers
 - ❑ Agricultural Constructed Wetlands (Friday)
- Extensive classroom instruction, work sessions, minor fieldwork possible, etc. Completion of a subsurface drainage design educational program encouraged.*

Questions/Hotel List? Contact Larry C. Brown
614.292.3826 or brown.59@osu.edu

The Overholt Drainage School is funded, in part, by your donations to the Overholt Drainage Education and Research Program Endowment at The Ohio State University. You may add a donation to the registration.

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