

2003 Virgil Overholt Drainage School
March 17-21
The Ohio State University

Program and Announcement

Agricultural Water Management Systems to Balance Food Production and Environmental Objectives

Program Objective

Provide continuing education for land improvement contractors, sanitarians, soil and water conservation technicians, farmers, consultants, 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.

General Information

Program is presented by the Overholt Drainage Education and Research Program (ODERP), Department of Food, Agricultural, and Biological Engineering (FABE), Ohio State University Extension, and Ohio Agricultural Research and Development Center (OARDC), at The Ohio State University, in cooperation with the USDA-Natural Resources Conservation Service (NRCS), the USDA-Agricultural Research Service (ARS) - Soil Drainage Research Unit, the Ohio Land Improvement Contractors' Association (OLICA), and others. Instructors include Land-Grant University Faculty and Staff, NRCS engineers and technicians, ARS engineers and scientists, and experienced OLICA contractors. The Overholt Drainage School Program is funded in part by donations made to the ODERP Endowment, Dept. FABE at The Ohio State University.

2003 Location

Fayette County Agricultural Service Center

Classroom instruction for all sessions will be conducted in the Fayette County Agricultural Service Building near Washington Courthouse, Fayette County, Ohio (1415 US RT 22, SW). Selected field sites will be announced during the school. All participants should bring calculator, and warm field clothes and boots for field sessions throughout week.

2003 Sessions

Session 1 – March 17

Laser Surveying and Topographic Mapping
[Monday 8:00 AM to 9:00 PM)

Content: Basic use of laser transmitters w/Lenker rod and detectors for surveying and topographic mapping; introduction to Lenker rod and field notes with Lenker rod; principles of laser surveying; rod readings and notes for leveling with laser; completing turning points and field notes; hands-on field layout and survey exercise; application of laser surveying

topographic mapping; reducing field notes and interpretation of field data; features of topographic maps, plotting field data and drawing contours; and completing topographic map to be used in Session 2.

Includes: Extensive classroom instruction and field exercises, and field-scale topographic problem.

Required: Elementary knowledge of basic surveying; and all participants should bring calculator, and warm field clothes and boots for field sessions throughout week.

Session 2 - March 18-19

Subsurface Drainage Design

[Tuesday 8:00 AM to 9:00 PM; Wednesday 8:00 AM to 9:00 PM]

Content: Agricultural drainage concepts, soil physical properties related to drainage, introduction to revised drainage guide, drainage design concepts, subsurface drainage design, drain spacing and depth, sizing laterals and mains, subsurface drainage design work sessions (actual design of real world field in Ohio), overview of surface drainage design concepts, benefits and economics of agricultural land drainage, environmental considerations and impacts, computer program applications, drainage system layout and installation.

Includes: Extensive classroom instruction and design work sessions, and limited fieldwork, with evening programs on economics and installation (includes Special Session 3).

Required: Elementary knowledge of soils and drainage, and working knowledge of basic surveying and topographic mapping; and all participants should bring calculator, and warm field clothes and boots for field sessions throughout week.

Special Session 3 - March 19

Subsurface Drainage System Installation: Considerations Using Pull-Behind Plows

[Wednesday evening, 7:00 to 9:00 PM]

Content: Subsurface drainage installation basics and methods; standard practices and common mistakes; Ohio research update on pull-behind drainage plows.

Includes: Classroom instruction, presentations, and discussions.

Required: No special requirements.

Session 4 - March 20

Waterway Design Concepts, Layout, Construction, Contractor Checkout

[Thursday 8:00 AM to 6:00 PM]

Content: Design concepts and theory, design procedures, step-by-step procedures, example design problems, engineering drawings, cross-sections, profiles, construction specifications, construction considerations, construction methods and equipment, layout and stakeout

considerations, checkout procedures, discussion of procedures, comments from contractors about process, and use of Non-NRCS Technical Services.

Includes: Extensive classroom instruction and field exercises, and field scale layout/checkout problem.

Required: Experienced contractors and technicians with knowledge of surveying and waterways; and all participants should bring calculator, and warm field clothes and boots for field sessions throughout week.

Session 5 - March 21

Surveys and Measurements for Drainage Channel Restoration
[Friday 8:00 AM to 6:00 PM]

Land surveying procedures and channel measurements with emphasis on county petition ditches and drainage design, and using geomorphologic principles and knowledge of fluvial processes to design self-maintaining agricultural ditches.

Includes: Classroom instruction, extensive field laboratory and field work sessions, and application of design techniques.

Required: Knowledge of basic surveying and basic hydrology; and all participants should bring calculator, and warm field clothes and boots for field sessions throughout week.

REGISTRATION INFORMATION - ADVANCED REGISTRATION REQUIRED

You may register for the entire five-day program, or for any combination of individual sessions. Please note the early registration deadline for each individual session. All registrations must be submitted in advance and in hard-copy form accompanied by payment (check, money order, purchase order reference number). Agencies processing purchase orders should contact Dr. Brown by March 1 to make arrangements, and submit the completed registration form with PO Ref # by the early registration date of March 8. Contractor companies registering three or more employees may request a special discount if you contact Dr. Brown before March 1 and submit the registration forms and payment by the early registration deadline of March 8. Maximum enrollment is listed below for each individual session.

Full-Program Registration (5 Days - March 17-21, 2003)

Early registration deadline for full program is March 8. Full-program fees are \$425 per person. If you register after March 8, full-program fees are \$500 per person. Final registration deadline is March 11. Full-program registration includes: tuition, meeting room rental, all sessions, lunches, refreshments, materials, manuals, guides, design notebooks, certificate of completion for Sessions 1, 2, 4, and 5.

Individual, Selected-Session Registrations

SESSION 1 - March 17, Laser Surveying and Topographic Mapping

[Monday 8:00 AM to 9:00 PM].

Early registration deadline for Session 1 is March 8, and fees are \$110 per person. If you register after March 8, Session 1 fees are \$150 per person. Final registration deadline is March 11. One-day registration includes: tuition, meeting room rental, lunch, refreshments, reference materials, laser surveying manual, and certificate of completion. Enrollment is limited to approximately 40 persons. No walk-ins please.

SESSION 2 - March 18-19, Subsurface Drainage Design
[Tuesday 8:00 AM to 9:00 PM; Wednesday 8:00 AM to 9:00 PM].

Early registration deadline for Session 2 is March 8, and fees are \$250 per person. If you register after March 8, Session 2 fees are \$300 per person. Final registration deadline is March 11. Two-day registration includes: tuition, meeting room rental, lunches, refreshments, reference materials, design notebook, Special Session 3 (Wednesday evening), and certificate of completion. Enrollment is limited to approximately 40 persons. No walk-ins please.

Special SESSION 3 – March 19, Subsurface Drainage System Installation: Considerations Using Pull-Behind Plows
[Wednesday evening, 7:00 to 9:00 PM].

Early registration deadline for Special Session 3 is March 8, and fees are \$10 per person. If you register after March 8, Special Session 3 fees are \$20 per person. One-evening registration includes: refreshments, meeting room rental, materials and handouts. Enrollment is limited to approximately 75 persons.

Note: If you registered for the full-week program, or for Session 2, you do not need to register for this special session as it is already included.

SESSION 4 – March 20, Waterway Design Concepts, Layout, Construction, Contractor Checkout
[Thursday 8:00 AM to 6:00 PM].

Early registration deadline for Session 4 is March 8, and fees are \$65 per person. If you register after March 8, Session 4 fees are \$100 per person. Final registration deadline is March 11. One-day registration includes: tuition, meeting room rental, lunch, refreshments, reference materials, and certificate of completion. Enrollment is limited to approximately 40 persons. No walk-ins please.

SESSION 5 - March 21, Surveys and Measurements for Drainage Channel Restoration
[Friday 8:00 AM to 6:00 PM].

Early registration deadline for Session 5 is March 8, and fees are \$45 per person. If you register after March 8, Session 5 fees are \$100 per person. Final registration deadline is March 11. One-day registration includes: tuition, meeting room rental, lunch, refreshments, reference materials, rapid assessment procedure guide, and certificate of completion.

Enrollment limited to approximately 40 persons. No walk-ins please. (This session is co-sponsored and funded, in part, by the Great Lakes Protection Fund, Project WR 545-2.)

Registration announcements are usually mailed out in late-January of each year.

Registration Acknowledgments and Program Instructions

For all early registrations (received before March 10), final instructions and directions will be mailed to registered participants starting March 10. A partial refund of registration fees may be made only upon your cancellation by email, phone or fax by end of day March 10, 2003.

To have your name placed on the mailing list for current or future programs, to receive a registration announcement, and/or to ask registration questions, please contact:

Rita Bowers
Food, Agricultural, and Biological Engineering
590 Woody Hayes Drive
Columbus, OH 43210-1057
tel: 614.292.6007
fax: 614.292.9448
bowers.14@osu.edu

Hotels: Contact Rita Bowers for list of area hotels near where the school will be held (we will fax or email you list). *Make your hotel reservations early!*

To ask programmatic questions about the Overholt Drainage School, please contact:

Larry C. Brown, Professor, Extension Agricultural Engineer
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