

The Minnesota Project

Strong Local Economies through Conservation, Renewable Energies and Regional Food Systems

Saint Paul ■ Canton ■ Lanesboro ■ New Ulm

Conservation Planning Training For Production Resources and Natural Resources Management

2007 Course Offering Announcement

A Conservation Planning Training course will be offered to Certified Crop Advisors and SWCD staff and held in the area in and around Stearns County.

The course will consist of a total of 9 days held from March through September 2007. The course was developed and implementing in close cooperation of MN Natural Resource Conservation Service and is supported by the University of Minnesota and Wisconsin, state and local agencies and agricultural professionals. Participants completing the course requirements and three NRCS-approved conservation plans can be certified by NRCS as Technical Service Providers – Certified Conservation Planners.

Farmer Preparedness for 2007 Farm Bill

While no one knows exactly what the next farm bill will contain, it is expected to have:

- Reduced trade-distorting payments (LDP's, MLG's, CCP's) and payment limits
- Disaster payments probably tied to using more crop and revenue insurance options
- More dependence on market prices and supply/demand forces
- Benefits for other crops/cropping systems and renewable energy support
- Increased conservation incentives possibly tied to farmer support payments

A farm operation that is well-prepared for these changes in the 2007 Farm Bill will have a:

- ⇒ ***Marketing Plan***
- ⇒ ***Risk Management Plan***
- ⇒ ***Agronomic Plan***
- ⇒ ***Conservation Plan***

This course is designed so the CCA will have the skills to deliver a Conservation Plan along with their Agronomy Plan that meets your client's expected baseline conservation requirements as well as to provide the conservation opportunities for the farmers and producers to capitalize on such as EQIP and the Conservation Security Program.

In practical terms, the conservation planning process identifies the "conservation holes" within the farm operation. Organizing and listing these "conservation holes" become the basis for an EQIP application or other local and state cost-share programs. Filling these "conservation holes" prepares their farm operation for the Conservation Security Program, to meet TMDL requirements or, in its original intent, to maintain the production and natural resources of the farm operation for the next generation.

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Course Organizer

This course is organized by Tim Gieseke, Minnesota Project Ag & Environmental Policy Specialist, New Ulm, MN. He currently focuses on the conservation, energy and commodity titles of the 2002 & 2007 Farm Bills. Tim managed a soil and water conservation district for 8 years working with local, state and federal conservation agencies and programs. He also farms a corn-soybean and grazing operation for the last 10 years and has been enrolled in the 1996 and 2002 Farm Bills in the commodity and conservation titles. He has on-farm experience in reduce till and no-till, tree and prairie planting & management, buffer strips, wetland creation, rotational grazing, agro forestry, surface and drain tile runoff ponds, and wildlife food plots. He received his B.S. degree in Biology/Chemistry and his M.S. in Environmental Sciences at MSU-Mankato. For comments and questions contact Tim at (507) 359-1889 or tgieseke@mnproject.org

The abbreviated course agenda, course dates, general locations and times:

Session 1 – CCA/TSP Orientation to Conservation Planning

March 1st – [8:30 – 4:00] Stearns County area

Estimated CEUs – 4

Session 2 – RUSLE2 [Software for soil resource determinations, CNMP]

March 8th – [9:45 – 2:30] Hudson, WI (snow date – March 15th)

Estimated CEUs – 3.5

Session 3 – Natural Resources – Farm and Regional Scale

April 3rd - [8:30 – 4:00] Stearns County area

Estimated CEUs – 5.0

Session 4 - Conservation Cropping and Drainage Systems

June 27 & 28th – [8:30 – 4:00] Stearns County area

Estimated CEUs – 10

Session 5 - On-Farm Resource and Energy Assessments

July 25th and 26th - [8:30 – 4:00] Stearns County area

Estimated CEUs – 10

Session 6 –Conservation Planning Development and Identifying Cultural Resources

August 23rd – Stearns County area [8:30-4:00]

Estimated CEUs – 4.5

Session 7 –Introduction of Engineered Conservation Practices for Agronomists

November 7th - [8:30 – 4:00] Stearns County Area

Estimated CEUs – 5.5

Course Costs

Each course day will cost \$65, except the RUSLE2 training will cost \$25.

Each course will be located in the Stearns County and immediate surrounding area, except the RUSLE2 course will be held in Hudson, WI
A total course cost of \$545 to be paid on March 1st

Course Sessions and Schedule

Session 1 - March 1st

CCA/TSP Orientation to Conservation Planning

- Conservation Planning Process
 - ◆ Training Program and Certification Requirements
 - ◆ Conservation Plan Example and components
- Conservation Planning Fundamentals
 - ◆ Soil and characteristics
 - ◆ Slopes and drainage patterns
 - ◆ Water and Wind Erosion
 - ◆ Core 4 Conservation Principles
- Soil Resources
 - ◆ Evaluating Soil Quality
 - ◆ Soil Mapping Techniques
 - ◆ Soil Information Resources (on-line)

Session 2 - March 8th

RUSLE2 Training

- Understand the concept and procedures for using RUSLE2 software to determine how cropping systems affect soil erosion, the soil conditioning index, soil tillage intensity rating.

Session 3 – April 3rd

Natural Resources - Farm and Regional Scale

- Introduction to Ecosystem Function
 - ◆ Agr0-ecoregions
 - ◆ Nutrients Cycles
- Introduction to State Water Quality Issues
 - ◆ Total Maximum Daily Loads
 - ◆ Restoration and Preservation Goals
 - ◆ Nutrients and Pathogens
- Forestry Resources
 - ◆ Living Snow Fence/Windbreaks
 - ◆ Woodlot and Tree Planting Management
 - ◆ Agro forestry
 - ◆ Invasive Species Management
- Habitat Resources
 - ◆ Planning and Management Techniques
 - ◆ Habitat Assessments for Upland, Wetland & Woodland

Session 4 - June 27 & 28th

Conservation Cropping and Drainage Systems

- Conservation Cropping systems, conservation crops and conservation practices
 - ◆ Benefits and limitation of longer rotations
 - ◆ Fundamentals of organic cropping systems
 - ◆ Resource concerns of specialty crops
 - ◆ Components and benefits of rotational grazing
- Water conservation and water table management
 - ◆ Landscape features and water movement
 - ◆ Basic Water Quality issues (Sediment, Nutrients, Pathogens & Pesticides)
 - ◆ Irrigation water conservation and nutrient transport
 - ◆ Drainage water control structure siting, benefits and limitations
- Soil Quality Parameters and Management Options
 - ◆ Organic Material
 - ◆ Soil Structure
 - ◆ Organisms
- Tillage Systems
 - ◆ Comparison on energy use on cropping systems
 - ◆ Minimum till, Strip Till and No-till options for area
- Phosphorus Index
 - ◆ Understand Phosphorus Index use
 - ◆ Data necessary to run the model
 - ◆ How various inputs (soil test P, soil loss, tillage) impact the results
 - ◆ How to interpret results and manage phosphorus loss
- Nitrogen Management
 - ◆ Understand how economic/maximum return on N rates were developed
 - ◆ Environmental concerns associated with nitrogen fertilizers
 - ◆ Understand the components needed to develop yield response curves
 - ◆ Management practices to reduce nitrogen leaching
- Integrated Pest Management
 - ◆ Understand IPM Principles
 - ◆ WINPST overview

Session 5 – July 25th and 26th

On-Farm Resource and Energy Assessments

- Energy Systems – Electricity, Natural gas, petroleum and Biofuels
 - ◆ Understand basic energy systems and supplies
 - ◆ Understand components of an on-farm energy audit
 - ◆ Major on-farm uses of energy and conservation options
 - ◆ Renewable energy options for use and production

- Resource Evaluation and Modeling
 - ◆ Feedlot Runoff Modeling – FLEval
 - ◆ Minnesota Milk Producers Environmental Quality Assurance
 - ◆ Farmstead and watershed modeling concepts will be discussed
- Groundwater and Source Water
 - ◆ Wellhead protection concepts and level of vulnerability
 - ◆ Understand groundwater modeling concepts and recharge
 - ◆ Drinking Water Supply Management Area
- Human Resource and Economic Principles of Conservation Planning
 - ◆ Social, Economical and Environmental
 - ◆ Practice maintenance and responsibilities
- Bio-Security Risks
 - ◆ Understand how diseases are transported
 - ◆ Prevention methods and management
- Cultural Resources primer
 - ◆ Understand the historic and prehistoric cultural resources of the area
 - ◆ Understand how resource management may impact cultural resources
 - ◆ Be able to identify landscape features that may indicate a site

Session 6 – August 23rd

Conservation Planning Development and Identifying Cultural Resources

- Conservation Planning Policies
 - ◆ Understand official policies and references
 - ◆ Understand the form and format of a conservation plan
- Cultural Resources Policies and Field Identification
 - ◆ Understand the protocol when identifying cultural resources
 - ◆ Understand conservation practices and activities that are considered exempt and those considered an undertaking.
 - ◆ Understand on forms and documents related to cultural resource preservation
 - ◆ Be able to identify landscape features that may indicate a site
- Conservation Planning Certification Process Review
 - ◆ Development of three NRCS-approved conservation plans
 - ◆ Continuing Education Requirements to maintain certification
- Conservation Planning Process
 - ◆ Step through the process of developing a conservation plan
 - ◆ Identify the necessary field information and electronic information needed to complete a plan
 - ◆ Understand components of an on-farm energy audit
- Conservation Plan Development
 - ◆ Walk through compiling a Conservation Plan using the 6-part folder
 - ◆ Use on-line tools to gather data examples

Session 7 – November 7th

Introduction of Engineered Conservation Practices for Agronomists

- Placement of engineered practices
 - ◆ Landscape features
 - ◆ Limitations of designs and uses
- Use of non-engineered and cultural practices to achieve resource goals
- Field exercise – View some of these practices in use on farms in central Minnesota
 - ◆ Windbreaks
 - ◆ Cover crops/residue management
 - ◆ Waterways/ Critical area planting/sediment basins
 - ◆ Milk house waste
 - ◆ Access Road
 - ◆ Grass filters (filter strips and buffers)
 - ◆ Stream bank stabilization
 - ◆ Water control--grade stabilization
 - ◆ Clean water diversions
 - ◆ Waste storage
 - ◆ Roof runoff/Feedlot water and manure management
 - ◆ Well abandonment