

UNIVERSITY OF MINNESOTA

2007 Manure and Air Quality Workshops

Topics in:

Land Application of Manure
Air Quality Issues
Manure Treatment
Open Lots
Understanding Animal Agriculture

More information at
<http://www.manure.umn.edu/workshops>

RETURN SERVICE REQUESTED

UNIVERSITY OF MINNESOTA
Manure and Air Quality Workshops
Department of Bioproducts & Biosystems Engineering
1390 Eckles Avenue
St. Paul, MN 55108-6005

Registration Form

Please print legibly. Use one form per person; photocopy for other individuals.

Class sizes are limited, so register early to guarantee a place. See page 5 for important information on late and cancellation fees.

Course	Fee	Location	Date(s)	Earlybird Deadline
<input type="checkbox"/> 101 Animal Agriculture and Air Quality I	\$95 (\$75 earlybird)	Owatonna	May 15 2007	(May 8)
<input type="checkbox"/> 111 Animal Agriculture and Air Quality II	\$95 (\$75 earlybird)	Owatonna	May 16 2007	(May 9)
<input type="checkbox"/> 201 Biofilter Design and Construction	\$95 (\$75 earlybird)	Waseca	May 17 2007	(May 10)
<input type="checkbox"/> 301 MN Annualized Feedlot Evaluation Model—New User	\$160 (\$140 earlybird)	Faribault	April 17-18 2007	(April 10)
<input type="checkbox"/> 401 Current Issues in Manure Management	\$65 (\$45 earlybird)	Owatonna	June 12 2007	(June 5)
<input type="checkbox"/> 501 Manure Management I—Nitrogen	\$95 (\$75 earlybird)	N. Mankato	Feb 7 2007	(Jan 31)
<input type="checkbox"/> 511 Manure Management II—Phosphorus	\$95 (\$75 earlybird)	N. Mankato	Feb 8 2007	(Feb 1)
<input type="checkbox"/> 521 Manure Management III—Developing a Plan	\$95 (\$75 earlybird)	N. Mankato	Feb 28 2007	(Feb 21)
<input type="checkbox"/> 531 Manure Management IV—Software	\$95 (\$75 earlybird)	N. Mankato	Mar 1 2007	(Feb 22)
<input type="checkbox"/> 601 Understanding Animal Agriculture	\$95 (\$75 earlybird)	N. Mankato	Feb 14 2007	(Feb 7)
<input type="checkbox"/> 701 Manure Storage Systems	\$160 (\$140 earlybird)	Mankato	Apr 11-12 2007	(Apr 4)

REGISTRATION OPTIONS

1. Mail registration with payment (see options below) or government purchase order to:

Manure and Air Quality Workshops
University of Minnesota
1390 Eckles Avenue Rm 219
St. Paul, MN 55108-6005

2. Fax (with credit card payment only) to 612-626-6030

Total amount due: \$ _____

NAME _____

COMPANY/ORGANIZATION _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

EMAIL _____

PHONE _____ FAX _____

PAYMENT CHECK, MONEY ORDER OR GOVERNMENT PURCHASE ORDER PAYABLE TO: UNIVERSITY OF MINNESOTA

OPTIONS CREDIT CARD: AMERICAN EXPRESS DISCOVER MASTERCARD VISA DINERS CARD

CARDHOLDER'S NAME _____ AMOUNT TO BE CHARGED: \$ _____

CREDIT CARD NUMBER: _____ EXP. DATE: _____

CARDHOLDER'S SIGNATURE (REQUIRED FOR PROCESSING CREDIT CARD): _____

Workshop Descriptions

Animal Agriculture and Air Quality Workshop I (One day) **Fee: \$75 if postmarked by earlybird deadline; \$95 after**

Animal Agriculture and Air Quality I provides an overview of air emissions from livestock and poultry facilities, their health implications, and applicable Federal and State regulations. This workshop will also discuss options for regulating odors and will include a comprehensive look at OFFSET, a tool for assessing the impact of odors on the surrounding community, which was developed at the University of Minnesota. This workshop is appropriate for those needing a general scientific understanding of livestock and poultry odor and air quality issues with a focus on developing, implementing, or enforcing regulations.

101 May 15, 2007 Owatonna—Cabela's

Animal Agriculture and Air Quality Workshop II (One day) **Fee: \$75 if postmarked by earlybird deadline; \$95 after**

Animal Agriculture and Air Quality II will provide participants with a thorough understanding of management and technologies for controlling odor and other air emissions from buildings and manure storages. The discussion will focus on the basic principles of air emissions control including dispersion, capture and treatment, and reducing generation through chemical and biological methods. The economics of these systems will also be evaluated. Several examples of current field scale systems will be presented along with the design parameters for these systems. New and innovative technologies will also be discussed along with an update on current research activities in this area. This hands-on course (practical examples, problems, etc.) will be extremely valuable to technical staff, engineers and government officials who are working to reduce odor and air emissions from livestock and poultry facilities.

111 May 16, 2007 Owatonna—Cabela's

Biofilter Design and Construction (One day) **Fee: \$75 if postmarked by earlybird deadline; \$95 after**

This hands-on course provides education and training on the design and construction of biofilters for control of odor and gas emissions from livestock and poultry buildings. Upon completion of this course, participants will:

- Understand the theory of biofiltration
- Understand basic ventilation concepts impacting building ventilation
- Understand the impact of different biofilter media on biofilter design
- Understand the critical criteria of biofilter plenum and duct design
- Be able to design a complete biofilter system for a livestock or poultry system

201 May 17, 2007 Waseca—Southern Research and Outreach Center

MAFEM Minnesota Annualized Feedlot Evaluation Model-New User (Two day)

Fee: \$140 if postmarked by earlybird deadline; \$160 after

This course provides education and training on the use of MAFEM. MAFEM is the model that is replacing FLEval for feedlot evaluation and pollution prioritization. This two-day course will be taught both in the classroom and in the field. Upon completion of this training, participants will be able to:

- Understand the factors affecting pollution from open lot runoff
- Obtain the required information to run the MAFEM program
- Run the MAFEM program
- Assess the pollution contributions of feedlots based on MAFEM model
- Understand the limitations of MAFEM in assessing pollution potential

A laptop computer is required for this course.

301 April 17-18, 2007 Faribault—Truckers Inn Restaurant

MAFEM Minnesota Annualized Feedlot Evaluation Model-Update (three hour)

Fee: No cost

This course provides an update on the use of MAFEM. The update includes the key areas where MAFEM differs from FLEval (the model that MAFEM is replacing for the prioritization of feedlots in Minnesota). This workshop is intended for those who have been using FLEval in the past but are now using MAFEM. The course will cover the key model inputs and outputs and how these outputs are used in regulations and cost share prioritization.

311 Course will be offered at several locations in the spring of 2007

Current Issues in Manure Management (One-half day) **Fee: \$45 if postmarked by earlybird deadline; \$65 after**

This workshop is designed to meet the 2004 educational requirements of the Commercial Animal Waste Technicians Licensure program but will also be useful to others involved in land application of manure. This year's workshop will provide critical information on a variety of issues such as soil nitrate testing, the economic value of manure, manure applicator business economics, insurance coverage, and labor issues.

401 June 12, 2007 Owatonna—Cabela's

Workshop Descriptions

Manure Management I, Nitrogen* (One day)

Fee: \$75 if postmarked by earlybird deadline; \$95 after

The first workshop in the four part series provides critical information on the use of manure nitrogen in manure management planning. Upon completion of this course, participants will:

- Understand the basics of manure management terminology
- Have a thorough understanding of the nitrogen cycle and the impacts on manure nitrogen use and crediting
- Be able to assess the crop nitrogen needs and past nitrogen credits on a given field
- Determine a manure application rate for a given field based on nitrogen
- Have an understanding of the latest research results concerning nitrogen crop nutrient requirements and manure nitrogen availability
- Have a practical understanding of the economics of manure application and the risks and benefits of using manure nitrogen

501 February 7, 2007 N. Mankato—Best Western

Manure Management II, Phosphorus* (One day)

Fee: \$75 if postmarked by earlybird deadline; \$95 after

The second workshop in the four part series will provide critical information on the use of manure phosphorus in manure management planning. Upon completion of this course, participants will:

- Understand the phosphorus cycle in the environment
- Understand the potential water quality issues related to poor phosphorus management
- Have a working knowledge of both the regulatory requirements for phosphorus management and the practical methods for reducing the impact of phosphorus on the environment (managing manure in sensitive areas)
- Be able to calculate a manure application rate based on phosphorus
- Learn about the latest research in phosphorus management.
- Understand the practical implications and economics of phosphorus based application rates

511 February 8, 2007 N. Mankato—Best Western

Manure Management III, Developing a Plan* (One day)

Fee: \$75 if postmarked by earlybird deadline; \$95 after

This third workshop in the four part series will provide critical information on developing a manure application plan. This course will provide experience integrating the knowledge gained in the first and second workshops in the series with other regulatory requirements and the practical considerations found in the field implementation of the plan. Upon completion of this course, participants will:

- Understand the difference between manure management plans, nutrient management plans, and comprehensive nutrient management plans
- Understand the critical aspects of manure management planning
- Be able to complete a manure management plan that meets MPCA requirements
- Have some understanding of the tools available to help write a manure application plan
- Have an understanding of the issues regarding the field implementation of manure management plans

521 February 28, 2007 N. Mankato—Best Western

Manure Management IV, Software for Manure Management Planning (One day)

Fee: \$75 if postmarked by earlybird deadline; \$95 after

The fourth workshop in the four part series will provide hands-on experience using both the MPCA's manure management EXCEL spreadsheet program and the *Nutrient Management Planner Software for Minnesota* by NRCS/Extension Service. The MPCA spreadsheet will assist in writing a plan to meet the regulatory requirements while the *Nutrient Management Planner Software for Minnesota* is an Access-based computer program designed to help develop field-specific crop nutrient management plans for crop and livestock operations. Upon completion of this course participants will have a good understanding of the variety of software tools available to help write manure management plans; gain practical experience using the MPCA spreadsheet program and the *Nutrient Management Planner Software for Minnesota*; and have an understanding of the plan documentation or reports that will be generated using the different software.

A laptop computer is required for this course.

531 March 1, 2007 N. Mankato—Best Western

Understanding Animal Agriculture (One day)

Fee: \$75 if postmarked by earlybird deadline; \$95 after

This one-day workshop presents an overview of the animal agriculture industry including historic trends, production trends, and the impact of government programs. Experts in the poultry, dairy, beef, and swine industries will introduce participants to livestock and poultry production systems, the integration of these systems to cropping systems and their relationship with the environment. The information presented will be valuable to individuals new to animal agriculture and involved in the development and enforcement of regulations, zoning guidelines, and others who work with the livestock and poultry industries.

601 Feb 14, 2007 N. Mankato—Best Western

Manure Storage Systems (Two day)

Fee: \$140 if postmarked by earlybird deadline; \$160 after

Manure storage systems are a critical component in manure management. This course will provide participants with critical information needed to design and inspect manure storage systems. System design information will include site investigation, critical design components, and construction issues. MPCA staff will be presenting information on critical inspection items for these storage systems. In addition, safety concerns will be addressed along with groundwater monitoring, economics of manure storage, and some discussion about choosing the right manure system.

701 April 11-12 2007 Mankato—Country Inn and Suites

***Continuing Education**

Manure Management I, II, and III can be used for Minnesota Crop Consultant Certification CEUs, and also meet the continuing education requirement for the CAWT licensure program.

Program Information

2007 Manure and Air Quality Workshops

One of the most challenging issues facing animal agriculture is environmentally sound and economically viable manure management. The University of Minnesota Extension Service is a recognized leader in providing quality education programs that address manure management issues. These programs have provided research based education to a wide range of audiences from Minnesota as well as other states and Canadian provinces. The workshops offered in 2007 will provide practical and applied research-based educational programs on odor and air quality, manure application, and feedlot runoff for a variety of audiences.

Primary course instructors from the University of Minnesota are joined by experts from federal, state, and local agencies such as the Minnesota Pollution Control Agency, the Natural Resources Conservation Service, and the Minnesota Department of Agriculture to provide a comprehensive learning experience. Backed by current research from the University of Minnesota these workshops offer the most unbiased, cost effective, and practical educational opportunities available on manure management today.

Registration Information

Registrations will be processed on a first-come, first-served basis. Class sizes are limited, so early registration is encouraged to guarantee a place. *Registrations will not be processed without payment.* You may pay by check, credit card, or government purchase order.

Registration Fee

Register by the deadline (one week in advance) to get the earlybird discount and to guarantee your place at the workshop. It also helps us to plan for an adequate amount of course materials and refreshments.

Cancellation Fee

Cancellations will be accepted up to **five business days** prior to the course with a **\$20 Cancellation Fee**. If you cancel after that time, or if you fail to appear at the course, you will forfeit your entire registration fee. Cancellation requests must be submitted in writing via mail or fax.

Substitutions

You may substitute another person's registration for your own; we request notification no less than two working days before the course.

Course Schedule

The courses run from 8:30 A.M.-4:30 P.M. each day. Registration begins at 8:00 A.M. (*Current Issues in Manure Management* ends at 1:30 P.M.)

Lunch is provided at all workshops except *Current Issues in Manure Management* and *MAFEM*.

Snacks and beverages will be available during both a morning and afternoon break at all classes.

Materials

Your workshop fee includes all reference materials. You may also want to bring a calculator. A laptop computer is required for *Manure Management IV, Developing a Plan* and *MAFEM-New User*.

Certificate

A certificate of course completion is distributed at the end of the workshop.

Disability Accommodations

To request disability accommodations, please contact us at 800-646-2282 or 612-625-7024 three weeks prior to the scheduled course.

Registration Information

Manure and Air Quality Workshops
University of Minnesota
Dept of Bioproducts and Biosystems Engineering
1390 Eckles Avenue
St. Paul, MN 55108
Phone: 800-646-2282 or 612-625-7024
FAX: 612-626-6030
<http://www.manure.umn.edu>

Visit

<http://www.manure.umn.edu/workshops>
for detailed information and agendas

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