

Animal Agriculture and Air Quality I

Siting of livestock facilities in relationship to air quality issues.

Odor from livestock and poultry production facilities is one of the biggest challenges facing farmers and citizens living in rural areas. Research at the University of Minnesota and other research institutes around the world has developed tools and technologies that can help solve some odor problems. The Animal Agriculture and Air Quality series, offered by the University of Minnesota Department of Biosystems and Agricultural Engineering, brings this valuable information to farmers, regulators, community members, technicians, consultants and others dealing with livestock odor concerns on a day-to-day basis.



This one-day hands-on workshop is designed to give participants an understanding of the air quality issues needing consideration when siting new livestock facilities. Air quality terminology, Federal and State regulations, health implications will be discussed. Tools and aids used in making siting decisions will also be presented. These tools include OFFSET (Odor From Feedlots Setback Estimation Tool), an air quality management plan, and an overview of the MDA publication "Livestock, Local Governments, and Land Use: A Guide for Minnesota Local Officials. The information presented will be invaluable to those involved in the development of regulations, zoning guidelines, or land use plans for rural Minnesota and others who have a general interest in livestock and poultry odors.

This workshop series has been offered since 1997 and has provided hundreds of people with the skills necessary to deal with odor issues related to livestock and poultry production.

Who Should Attend:

- County Commissioners
- Township Officers
- Planning and Zoning Officials
- Livestock Producers
- County Extension Educators
- Agriculture Loan Officers
- Concerned Citizens
- Regulators
- Technical Service Providers

Course Instructors:

Faculty members from the University of Minnesota Department of Biosystems and Agricultural Engineering and various Minnesota state and local staff who deal with air quality issues.

To register: <http://www.manure.umn.edu/workshops>
or call 1-800-646-2282

Course Agenda

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Air Quality Regulations

Federal and state regulations regarding ambient concentrations of dust and gas continue to be evaluated. This talk will present current and future regulations, and will provide information on the current permitting requirements for both Animal Feeding Operations (AFO) and Confined Animal Feeding Operations (CAFO) operations. Emission factors will be explained and outlined along with current research documenting these emissions. Progress on the EPA consent agreement will be presented along with information on how CAFOs and AFO's fit into the National Ambient Air Quality Standards.

Air Quality Health Issues

Concerns about health from livestock emissions are of growing concern. These health issues include a variety of gasses, dust, odor, and pathogens. This talk discusses these concerns and presents the scientific basis and process for setting these human health standards.

Introduction To Odor Regulations

Will discuss some of the many options available for incorporating odor into feedlot regulations. Quebec, Australia, England, Iowa, Colorado, and Swiss methods will be discussed. The intent of this section is to give participants some reference point in which to view OFFSET.

OFFSET—Development

A complete discussion of the development, validation, and use of OFFSET (a model to predict the downwind odor impact of livestock and poultry facilities based on size and type of farm). Hands-on practice of working examples will be included along with a discussion about the future development of OFFSET.

OFFSET—Implementation

A lively discussion of how a Minnesota county has integrated OFFSET in its feedlot regulations. The pros and cons of using OFFSET in the real world and practical advice on “selling” this system to the regulated community and the public will also be presented.

Odor Management Planning

Odor management plans are currently required as part of the air quality management plan of a CAFO permit. However, writing of an odor management plan should be part of every animal agricultural operation no matter what the size. This part of the workshop will discuss the basics of odor management plan writing and give participants some first hand experience developing a plan.

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