

Manure Management II, Phosphorus

Manure Application Planning is a complex process of determining how to most economically distribute manure from a livestock operation on cropland while protecting the environment. This workshop is the second in a four-part comprehensive educational program on manure management and is the result of a collaborative effort by the University of Minnesota, the University of Minnesota Extension Service, the Minnesota Pollution Control Agency, the Minnesota Natural Resource Conservation Service, the Department of Agriculture, and the Minnesota County Feedlot Officers Association. All of the courses in this series are intensive one-day courses combining lecture and classroom exercises.



This second workshop in the series provides detailed instruction on the role of manure phosphorus in manure management planning. This workshop will also provide an update on the latest research related to phosphorus management including the Minnesota P-index. Upon completion of Manure Management II the 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;
- Become familiar with the latest research in phosphorus management;
- Understand the practical implications and economics of phosphorus based application rates.

Who Should Attend:

This workshop series is designed specifically for consultants and technical staff involved in the writing or review of manure management plans. Farmers intending to write their own manure plans are also encouraged to attend any or all of this series. The three workshops in this series build on each other. This is the second of the workshop series.

Course Instructors:

Kevin Blanchet, Manure Management Specialist, University of Minnesota Extension Service
David Wall, Senior Hydrologist, Minnesota Pollution Control Agency
Robert Koehler, University of Minnesota Southwest Research and Outreach Center
John Moncrief, PhD, Soil Scientist, University of Minnesota

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

MANURE MANAGEMENT AND AIR QUALITY (MMAQ)
EDUCATION PROGRAM
WORKSHOP SERIES

Detailed Course Agenda Manure Management Planning II, Phosphorus

Phosphorus basics

P sources and P cycle
Water quality concerns with phosphorus
How P gets to water

Dietary Impacts on Manure Phosphorus

Nutrient generation from livestock
Species, diets and other effects on P concentrations in manure
Economics of diet manipulation

Crop Phosphorus Needs and Removal

Soil P testing – different tests and what they mean
Minnesota P recommendations
Crop P removal (and differences with crop P needs)

Managing Manure Phosphorus to Protect Water Quality

Prioritizing fields for manure applications
based on crop P and N needs
based on potential for P loss to water (P index)
Strategies to prevent P from getting into waters
Reducing or maintaining soil P levels
Avoiding surface applications
Soil conservation measures

Regulations on High P Soils and Sensitive Areas

Basis for regulations (P, pathogens, other)
High P soils
Minimum state setbacks
Dealing with spills and emergencies

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For more information on the course content contact David Schmidt at 612-625-4262 or schmi071@umn.edu