

Feed Management - An Ingredient in Whole Farm Nutrient Management



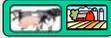
Intro



A Key Ingredient in Livestock and Poultry Nutrient Management

USDA - Natural Resources Conservation Service Funded Conservation Innovation Grant

Development and Integration of a National Feed Management Education Program and Assessment Tools into a Comprehensive Nutrient Management Plan



Nitrogen in the Environment

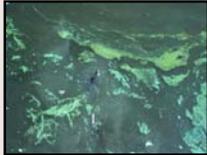
- N is an essential element for plants and animals
 - Often the most limiting nutrient for crop production
- High N can be toxic to animals - especially infants
 - PHS for drinking water: 10 ppm NO₃-N
- Very dynamic and mobile in the soil water system
 - Very difficult to keep out of the environment - even with good management



Source: Doug Beegle

Phosphorus in the Environment

- P is an essential element for plants and animals
- High P is generally non-toxic to plants or animals
- Relatively immobile in soil
- P causes accelerated eutrophication
 - Excessive growth of algae and aquatic plants
 - Limits use of water for drinking, fishing, recreation, etc.



Source: Doug Beegle

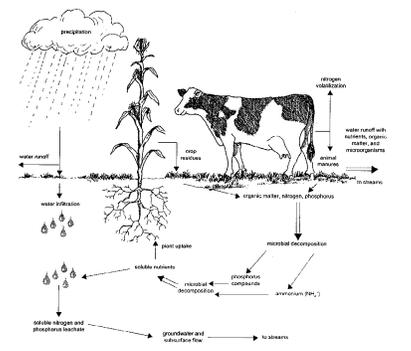
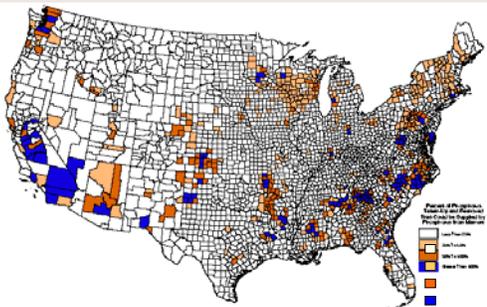


Figure 2—Organic nitrogen and phosphorus in soil are converted through microbial decomposition to plant available forms, which are taken up by growing plants. Inorganic nitrogen can be lost through volatilization, surface runoff, and leaching to groundwater.

Source: Godwin and Moore 1997

Manure P vs. Crop Land P Use



Introduction to Workshop and Resources

Workshop

- Four hour format with one break
- Follow-up training of specific tools via web based training from your home or office
- Use of real farm case studies



Goals of Workshop

Goals of this workshop are to provide you with:

- Understanding of value of Feed Management as part of Whole Farm Nutrient Management
- Opportunity to become certified as Feed Management Planner (NRCS & ARPAS)
- Tools to complete the development of a Feed Management Plan



Resources

Resources

- Team of National Experts in Feed Management and Whole Farm Nutrient Management
- Fact Sheets as supplemental information
- On-farm assessment tools to gather information for FMP



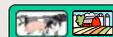
Resources

- Spreadsheet based tools

<http://www.puyallup.wsu.edu/dairy/joeharrison/software.asp>

- Supporting Fact Sheets

<http://www.puyallup.wsu.edu/dairy/joeharrison/publications.asp>



Purpose of Feed Management 592 Practice Standard

Feed to minimize excess nutrients in manure while maintaining production, performance, and reproduction

Feed to improve net farm income by feeding more efficiently.



Feed Management 592 Implementation Flow Chart

CNMP* Activity

Activity

Who

Step 1) Determine purpose	Step 1) Nutrient Management Planner and Producer
Step 2) Identify conditions where practice applies and assess the Opportunities	Step 2) Nutrient Management Planner and Producer
Step 3) Economic evaluation	Step 3) Nutrient Management Planner, Producer, and Nutritionist
Step 4) Feed management plan development	Step 4) Nutritionist and Producer
Step 5) Implement and monitor	Step 5) Nutritionist and Producer

*CNMP= Comprehensive Nutrient Management Plan

