National Feed Management Education Project

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

Background

The US Environmental Protection Agency (EPA) released new guidelines for Concentrated Animal Feeding Operations and Animal Feeding Operations (CAFO/AFO) in 2003. Under the new guidelines, permitted CAFO/AFO’s will be required to develop a Nutrient Management Plan (NMP).

One form of a NMP is a Comprehensive Nutrient Management Plan (CNMP) as defined by the Natural Resources Conservation Service. There are six core elements of a CNMP: 1) Feed Management, 2) Manure and Wastewater Handling and Storage, 3) Nutrient Management, 4) Land Treatment, 5) Record Keeping, and 6) Other Manure and Wastewater Utilization Options.

For those that choose to develop a CNMP, there will be an immediate need for an understanding of the Feeding Management element of the CNMP. Although NRCS and SWCD staff are trained in most components of a CNMP, they have little or no educational background in Feed Management. Nutrient Management consultants also need training in the Feed Management component of a CNMP. Whereas Professional Nutrition-Management consultants have been trained in diet formulation and ingredient management, they are, in some cases, not aware of the most recent information about the environmental and economic merits of the newest feed management technologies. In order to have the greatest impact, professionals who will serve and influence vast numbers of livestock and poultry producers must be reached.

Project Overview

The goal of the project is to increase the understanding of agricultural professionals about the area of Feed Management, with an emphasis on Environmental and Financial Sustainability of Livestock and Poultry Operations. The primary audience for the education program will be: 1) Animal Nutritionists, and 2) NRCS staff and Technical Service Providers (TSPs) and advisors.

A team consisting of consulting animal nutritionists, NRCS staff, TSPs, and research scientists will accomplish the following program objectives:

1) develop and evaluate a two-tier tool for assessing the impacts of feed management practices on whole farm nutrient balance for animal nutritionists, NRCS staff and TSP advisors,

2) develop the content of a Feed Management chapter for the NRCS Agricultural Waste Management Field Handbook (AWMFH), and

3) develop and implement a education program targeting integration of feed management into a CNMP.
Specific outcomes are:

1) develop educational materials in feed management that are applicable at the national level for NRCS, agriculture professionals, and TSP, and

2) provide training for NRCS staff, agricultural professionals, and technical service providers in feed management concepts and practices that focus on whole farm nutrient balance, and

3) provide training in the use of computer models and software for strategic ration balancing, whole farm nutrient balance, and nutrient excretion estimates based upon feed and animal performance inputs, and

4) develop a chapter for the NRCS Agricultural Waste Management Field Handbook (AWMFH) on Feed Management.