Precision Dairy Feeding

Dairy Precision Feeding reduces the quantity of phosphorus and nitrogen fed to livestock by formulating diets within 110% of Nutritional Research Council recommended level in order to minimize the excretion of nutrients without negatively affecting milk production.

Efficiencies:
TN: 24%
TP: 25%

Phytase Feed Additive

Phytase is an enzyme added to poultry-feed that helps poultry absorb phosphorus. The addition of phytase to poultry feed allows more efficient nutrient uptake by poultry, which in turn allows decreased phosphorus levels in feed and less overall phosphorus in poultry waste.

Ammonia Emissions Reductions: Poultry Litter Treatment, Alum

Surface application of alum, an acidifier, to poultry litter to acidify poultry litter and maintain ammonia in the non-volatile ionized form (ammonium).

Ammonia Efficiency: 50%

Loafing Lot Management: Heavy Use Area Protection

A heavy use protection area provides a stabilized surface of crushed stone, oyster shells, concrete, or other suitable material that will protect the soil surface from erosion. Heave use protection is used for manure handling in high traffic areas that are vulnerable to runoff. Heavy use concrete pads should be used in areas where litter is handled, such as poultry houses and manure storage sheds, to prevent soil contamination and provide a means for ease of clean up.

Efficiencies:
TN: 20%
TP: 20%
TSS: 40%

Mortality Composting

A physical structure and process for disposing of any type of dead animals. Composted material land applied using nutrient management plan recommendations. Nutrient efficiencies apply only to the mortality fraction which varies by animal type.

Efficiencies
TN: 40%
TP: 10%

Animal Waste Management System

Practices designed for proper handling, storage, and utilization of wastes generated from confined animal operations. Reduced storage and handling loss is conserved in the manure and available for land application.

Efficiencies
TN: 75%
TP: 75%

Barnyard Runoff Control:

It includes the installation of practices to control runoff from barnyard areas. This includes practices such as roof runoff control, diversion of clean water from entering the barnyard, runoff collection and infiltration from barnyards areas, and vegetated swales. Different efficiencies exist if controls are installed on an operation with manure storage or if the controls are installed on a loafing lot without manure storage.

Efficiencies:
TN Efficiency: 20%
TP Efficiency: 20%

BMP descriptions provided by the Chesapeake Bay Program.