

## Feed Management

### Virginia Conservation Practice Job Sheet

592

#### Definition

Manipulating and controlling the quantity and quality of available nutrients, feedstuffs, or additives fed to livestock and poultry.

#### Purpose

- Improve feeding efficiency in a manner that facilitates and contributes to the conservation of natural resources.
- Reduce the quantity of nitrogen, phosphorus, sulfur, salts, and other nutrients excreted in the manure.
- Reduce the quantity and viability of pathogens in manure
- Reduce odor, particulate matter, and greenhouse gas (GHG) emissions production from animal feeding operations.

#### Criteria Applicable to All Purposes

Sufficient nutrients shall be supplied to maintain the health, growth, production, performance and reproduction of livestock and poultry.

The diets for specific species of animals shall be developed in accordance with recommendations from one of the following:

- The most current recommendations of the National Research Council (NRC).
- Recommendations of the land grant university.
- Science based standards developed by the professional nutritionists of livestock and poultry production companies, feed companies, and/or feed suppliers.

Laboratory analysis shall be done on the formulated diet, or on the feed ingredients used to formulate the diet, to determine its nutrient content.

Feed and manure analyses shall be conducted by laboratories whose tests are accepted by the Land Grant University, the State Department of



Agriculture, or another appropriate body in the state in which the feeding strategy will be implemented. Data from analyzed feed ingredients and/or appropriate feed analysis information for the operation will be used for adjustments of ration formulation.

Diets and feed management strategies shall be developed by professional animal scientists, independent professional nutritionists or other comparably qualified individuals. When required by state policy or regulation, animal nutritionists shall be certified through a certification program recognized within the state.

Diets shall be formulated to provide the quantities and correct relative ratios of available nutrients required by the animal species to meet the goals for which the plan is being developed. Adjustments to nutrient levels shall be provided to meet specific genetic potential, environmental demands, and/or requirements to insure health, well-being and productivity.

One or more of the following feed management practices and/or diet manipulation technologies that will be used to reduce N, P, other excreted nutrients, pathogens, odors, and/or GHGs, while maintaining the health, well-being and productivity of the animal:

- Formulating diets closer to animal requirements.
- Reducing protein and supplementing with amino acids (non-ruminants).
- Manipulating the crude protein and energy (carbohydrate and fat) content of the diet to enhance the availability of amino acids (ruminants).
- Using highly digestible feeds and forages, as appropriate, in the diet.
- Using phytase and reducing the supplemental phosphorus content of the diet (non-ruminants).
- Reducing the phosphorus content of the diet of ruminants when P is being overfed.
- Using selected scientifically supported, enzymes or other products to enhance feed digestibility or feed use efficiency.
- Using scientifically supported and environmentally benign growth promotants and additives as allowed by law.
- Implementing phase feeding.
- Implementing split-sex feeding.
- Using other feed processing, management, or diet manipulation technologies that have demonstrated the ability to reduce manure nutrient content, pathogens, odors, or GHGs.
- When livestock are obtaining their diet by grazing pastures as well as mechanically harvested and processed feeds, pasture forages will be tested for nutrient content and accounted for in the feed ration and balance of nutrients. All feeds, including grazed pasture will be included in an analysis for meeting the livestock's nutritional requirements and avoiding excess nutrients being fed. Forage tests will meet the Land Grant University's acceptance and certification process.

- Additional criteria specific to the plan:

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**Note: This summary does not address all requirements and considerations in the VA Feed Management Conservation Practice Standard (VA-592). Consult the Conservation Practice Standard for further details.**

<b>General Information</b>		
Client/Operating Unit:		Farm #:
County:	Field Office:	Tract #:
Type and Number of Animal Units Affected: _____		
Number of herds in the operation with a brief description:		
_____		
_____		
_____		

<b>Design Approval</b>		
Design and feed management strategies will be developed by professional animal scientists, independent professional nutritionists or other comparably qualified individuals.		
Plan Developed By:		Date:
Job Title:	Certification #:	
This plan will be reviewed and/or revised on the following schedule: _____		
_____		
_____		

<b>Goals, Objectives, and/or Specific Purpose</b>
Diets will be formulated to provide the quantities and correct relative ratios of available nutrients required by the animal species to meet the goals for which the plan is being developed. Adjustments to nutrient levels will be provided to meet production, growth, performance, animal health, and reproduction while reducing the quantity of nutrients especially nitrogen and phosphorus excreted in the feces by minimizing overfeeding of these nutrients.
Additional Narrative (briefly describe the planned change in feed management practice or diet manipulation technology and the expected outcome including nutrient reduction goal):
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**Plan Specifications Summary**

• Protocol for sampling and preserving feed ingredients, feces and/or water as applicable prior to sending for analysis is included in the plan.  Yes  No

• Feed analysis and ration formulation information prior to plan implementation.

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See attached sample analysis for more information.

• Feed analysis and ration formulation information after plan implementation.

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See attached sample analysis for more information.

• The attached feed management plan specifically identifies the quantities and sources of nitrogen and phosphorus that will be fed.  Yes  No

• Measured nutrient content of the feces prior to the implementation of feed management on the operation.

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See attached fecal sample analysis for more information.

• The estimated impact that feed management will have on fecal nutrient content.

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• Fecal analysis after implementation of the feed management strategy is attached to document actual nutrient reductions.  Yes  No

• The expected impact on pathogen content, odor, and GHG reduction of feces if applicable:

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Not applicable to this plan.

• Dates of plan review, the person performing the review and written recommendations that resulted are documented and attached to the plan.  Yes  No

### Operation and Maintenance

The producer/client is responsible for the operation and maintenance of the feed management plan. Operation and maintenance activities address the following:

- Periodic plan review to determine if adjustments or modifications are needed.
- Routine feed analysis to document the rates at which nitrogen and phosphorus were actually fed. When actual rates fed differ from or exceed the planned rates, records will indicate the reasons for the differences.
- Maintain records to document plan implementation. As applicable, records include:
  - ◆ Feed analysis and ration formulation, including the record of ration formulation used prior to implementing the feeding strategy.
  - ◆ Records' estimating the impact the feeding strategy is having on reducing fecal nutrient content.
  - ◆ Fecal analysis conducted after the feeding strategy was implemented to determine fecal nutrient content.
  - ◆ Dates of review and person performing the review, and any recommendations that resulted from the review.

Records of plan implementation shall be maintained for five years, or for a period longer than five years if required by other Federal, state, or local ordinances, program, or contract requirements.

### Client's Acknowledgement Statement

The client acknowledges that:

- a. They have received a copy of the feed management plan and understand the contents and requirements.
- b. It is the responsibility of the client to obtain all necessary permits and /or rights, and to comply with all ordinances and laws pertaining to the application of this practice.

Accepted by:

Date:

### Certification Statement

I have completed a review of the documentation provided by the client and certify this practice has been applied.

Certified by:

Date:

