



## **Dairy Opportunity Checklist: Identify resource concerns and/ or conditions where practice applies and assess the Opportunities**

Feeding management is one of six components of a Comprehensive Nutrient Management Plan (CNMP) as defined by the Natural Resource Conservation Service. Feeding management as part of a CNMP should be viewed as a “consideration” but not a “requirement” as some practices will not be economical on some dairies.

### Resource concerns and the conditions where practice applies

Field specific resource concerns that may be impacted by feed management (but not limited too) are soil and water quality. For example, nutrients may build-up in the soil or leach into ground water due to manure application. Feed management practices with or without several other practices may reduce the volume and nutrient content of manure. If one or both of these resource concerns exist on an operation, then a Feed Management Plan (FMP) should be considered by completing the Opportunity Checklist.

Conditions where practice applies are whole farm imbalance, soil build-up of nutrients, land base not large enough, or operation seeking to enhance nutrient efficiencies. Feed management practices with or without several other practices may reduce the volume and nutrient content of manure and may be an effective approach to minimizing the import of nutrients to the farm. If one or more of these conditions exist on an operation, then a FMP should be considered by completing the Opportunity Checklist.

### Opportunity Checklist

The Opportunity Checklist is designed to determine the relative opportunity for feed management to impact Whole Farm Nutrient Management. The Opportunity Checklist is the first step in making a decision on whether to complete a FMP. The checklist is meant to be used as an initial, quick, *on-farm* assessment tool. If the decision is made to complete a FMP, numerous additional feed management practices will be assessed in more detail.

The items shown in the Opportunity Checklist are the management practices which have the greatest opportunity for feed management to impact Whole Farm Nutrient Management. The ‘Benefit to the Environment’ column provides the possible impact the practice could have on whole farm nutrient management. It is meant to be informative and should not be answered for each farm. If one or more of the Opportunity Checklist items are noted in the category of "moderate or lots of opportunity for improvement", then the next evaluation step should be completed: Economic Evaluation (manure transport vs feed management change) or FMP Checklist.

## **Dairy information**

Dairy Name \_\_\_\_\_ Anonymous Farm \_\_\_\_\_

Date Completed \_\_\_\_\_ March 23 2010 \_\_\_\_\_

Producer Signature \_\_\_\_\_

Adviser Signature \_\_\_\_\_

## **Identify resource concern(s) and/ or the condition(s) where practice applies:**

### **Resource Concern(s)**

- Soil Condition:** *Contaminants – Animal Waste and Other Organics*  
*Nutrient levels from applied animal waste and other organics restrict desired use of the land.*
- Water Quality:** *Excessive Nutrients and Organics in Groundwater*  
*Pollution from natural or human induced nutrients such as N, P, and organics (including animal and other wastes) degrades groundwater quality.*
- Water Quality:** *Excessive Nutrients and Organics in Surface Water*  
*Pollution from natural or human induced nutrients such as N, P, and organics (including animal and other wastes) degrades surface water quality.*

### **Conditions Where Practice Applies**

- Whole Farm Imbalance:** Confined Dairy operations with a whole farm nutrient imbalance, with more nutrients imported to the farm than are exported and/or utilized by cropping programs. **Brings in all of their grain.**
- Soil nutrient build-up:** Confined Dairy operations that have a significant build up of nutrients in the soil due to land application of manure.
- Land base not large enough:** Confined Dairy operations that land apply manure and do not have a land base large enough to allow nutrients to be applied at rates recommended by soil test and utilized by crops in the rotation.
- Dairy operations seeking to enhance nutrient efficiencies**

**Determine the Feed Management opportunities for addressing Resource Concerns:**

On the following pages is a list of feeding management practices that can affect nutrient balance. Please read through each feeding management consideration and record your answer. If one or more of the Opportunity Checklist items are noted in the category of "moderate or lots of opportunity for improvement", then the next evaluation step should be completed; economic evaluation or FMP Checklist.

**Dairy Opportunity Checklist**

Issue	Little opportunity for improvement	Some opportunity for improvement	Moderate opportunity for improvement	Lots of opportunity for improvement	Benefit to the environment
Are diets formulated to meet the requirements of the animal?	Yes, by either a nutritionists, feed company, or software program	–	–	No	N, NH <sub>3</sub> , P
Are animals fed in groups?	Yes, high, low producing cows, dry cows, close-up cows, and multiple heifer groups	Yes, lactating, dry, and multiple heifer groups	Yes, lactating, Dry, and heifer groups	No	N, NH <sub>3</sub> , P
Is there a system for determining diet Dry Matter (DM) on the farm?	Yes-nutritionist does this.	–	-	No	N, NH <sub>3</sub> , P
Are diets adjusted for changes in DM?	Daily to weekly	Weekly to monthly	Infrequently	No	N, NH <sub>3</sub> , P
How often is DMI (Dry Matter Intake) determined?	Daily to weekly	Weekly to monthly	Infrequently	Not done	N, NH <sub>3</sub> , P

Issue	Little opportunity for improvement	Some opportunity for improvement	Moderate opportunity for improvement	Lots of opportunity for improvement	Benefit to the environment
<b>Diet Composition</b>					
Are Ingredients or diets analyzed for nutrient composition? (i.e. CP, P, K, NDF, ADF etc.)	Yes, routinely	Only when a new feed or forage is fed	Not regularly analyzed	Not analyzed	N, NH <sub>3</sub> , P
<b>Crude protein (CP) in diet (DM basis):</b>					
High producing cows *	16-16.9% 16.38%	17-17.9%	18-18.5%	18.5% or greater	N, NH <sub>3</sub>
<del>Low producing cows *</del>	<del>13-13.9%</del>	<del>14-14.9%</del>	<del>15-15.9%</del>	<del>16% or greater</del>	
Dry cows	11-11.9%	12-12.9%	13-13.9%	14% or greater 15% Prefresh	
<b>Phosphorus in diet (DM basis):</b>					
High producing cows *	0.38-0.39% 0.36%	0.40-.41%	0.42-0.43%	0.44% or greater	P
<del>Low producing cows *</del>	<del>0.32-0.34%</del>	<del>0.35-0.36%</del>	<del>0.36-0.37%</del>	<del>38% or greater</del>	<del>P</del>
Dry cows	0.25%		>0.25% 0.34%		P
<b>Potassium in Diet (DM basis):</b>	Fed at NRC recommendation (1%)	Fed at 20% above recommended 1.44%	Fed at 40% above recommended	Not known	K

\*Holstein cows in midlactation and ration is balanced for RDP/RUP (NRC, 2001)

\*\*When formulating for DCAD in lactation rations, one should not consider potassium as part of the opportunity checklist. However, attention to levels for K in home-grown forages is warranted.