

# DCAP

# Facts

## Delaware County Action Plan

# Precision Feeding

### What is Precision Feed Management?

Precision feed management is the component of truly comprehensive nutrient management planning that involves affecting the farm mass nutrient balance and dairy cow nutrient excretions through manipulation of the feed systems of the farm. Precision feed management is comprised of two components:

1. Precision Feeding, and
2. Forage Systems Management.

Precision feeding entails formulating dairy diets that more precisely target animal nutrient requirements, thereby reducing animal manure nutrient excretions (which reduces the potential pool of manure nutrients available for runoff and leaching) and reducing whole farm mass nutrient imbalances (less nutrients accumulating on the farm over time). It also includes implementing diets that increase utilization of forages produced on the farm, while decreasing reliance on purchased feed nutrients.

Forage systems management focuses on increasing the amount and quality of homegrown nutrients available to be fed to the dairy cattle by improving forage production. This allows for less importation of purchased and feed nutrients, and reduces the whole farm mass nutrient imbalances over time. Forage systems management

also incorporates the role of forage planning in land management to reduce field edge nutrient losses (runoff and erosion).

### What impacts can be expected from implementing Precision Feed Management?

A two-year Precision Feeding project lead by Cornell Cooperative Extension of Delaware County and focusing on reducing phosphorus demonstrated the following results:

- 25 percent reduction in imported feed phosphorus;
- 33 percent reduction in excreted manure phosphorus; and
- 50 percent reduction in the amount of phosphorus remaining on the farm.



Applying results of this study to all the mature dairy cattle in the Cannonsville Reservoir Basin, formerly a phosphorus restricted reservoir, could yield a 64,000-73,000 kilogram reduction in phosphorus entering the basin and excreted in the manure produced in the basin annually. The total annual phosphorus load to the Cannonsville is 50,000 kilograms.

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**DCAP** is a collaborative partnership with the NYS Water Resources Institute, the Catskill Watershed Corporation, the Watershed Agricultural Council, the NYC Department of Environmental Protection, state and federal watershed partners.

The Plan comprehensively addresses all significant nonpoint contaminant sources in the Cannonsville Basin to meet water quality objectives.

For more information on DCAP contact the Delaware County Department of Watershed Affairs.

