

# **Role of Ration Balancing in Dairy Farm Nutrient Management: Case Studies. (S08-dou123034-Poster)**

## **Authors:**

- Z.Dou - *Univ Penn*
- J.Fiorina - *Univ. Penn*
- R.Munson - *Univ. Penn*
- J.D.Ferguson - *Univ. Penn*
- C.Ramberg, Jr. - *Univ. Penn*

## **Abstract:**

This paper presents two case studies to demonstrate the importance of feeding management as a front end approach in improving nutrient balance on dairy farms. The two commercial dairies, both located in the Chesapeake Bay Watershed, were visited by veterinary students taking a ration formulation course in fall 2001. The students interviewed the farmers, obtained rations fed on the farms, and evaluated the rations using CPM Dairy software. Rations on Dairy A were excessive in rumen degradable proteins but deficient in metabolizable proteins. Better balanced and cheaper rations were formulated for improved nutrient supply and higher milk yield while decreasing excessive nutrients. Dairy B fed 300 cows a total mixed ration containing excessive P. The students re-formulated rations to lower dietary P from 0.50% to 0.39% with decreased feed cost. Projected reduction of P (in feeds and subsequently in manure) totaled 4,300 lb P per year with a substantial saving on feed purchases on this farm. These real farm examples attest the great potential of ration balancing and feed management in reducing nutrient surplus on dairy farms for environmental and economical benefits.

## **Corresponding Author Information:**

Z. Dou	phone: 610 444-5800
Univ Penn	fax: 610 925-8123
382 W. Street Rd.	e-mail: dou@cahp.vet.upenn.edu
Kennett Sq., PA 19348	

## **Presentation Information:**

Presentation Date: Wednesday, November 13, 2002  
Presentation Time: 4:00-6:00 pm  
Poster Board Number: 2333

**Keywords:**

Nutrient management, Ration balancing