Feed Bunk Management Practices on California Dairies

N. Silva-del-Rio[1], DVM, PhD; **J.M. Heguy**[2], MS; **A. Lago**[3], *DVM, PhD, DABVP-Dairy*
[1]*University of California Cooperative Extension - Tulare County, CA 93274*
[2]*University of California Cooperative Extension, San Joaquin and Stanislaus Counties, CA 95358*
[3]*APC, Inc., Ankeny, IA 50021*

Introduction

Feed is not only the major cost on dairies, but is also the major source of nutrients (i.e. nitrogen and phosphorus) and salts in animal waste, as well as a source of greenhouse gases (i.e. volatile organic compounds from silages). Therefore, the implementation of best feeding management practices will increase feed efficiency and minimize the impact on the environment. The aim of this study was to obtain information on current feed bunk management practices for the high milk yield pens on California's Central Valley dairies.

Materials and Methods

In summer 2009, a feed management survey was mailed to dairy producers in Tulare, Stanislaus, and San Joaquin counties: the first, third, and seventh-largest producing dairy counties in California, respectively. Producers received an envelope containing an invitation letter, a one-page survey, and a pre-paid return envelope.

Results

Response rate was 16.9% (120/710). Herd size ranged from 160 to 6,600 cows (median=950). Dairies fed total mixed rations (TMR) once (28.8%), twice (64.0%), or three or more times daily (7.2%). Two dairies reported that TMR was fed six times per day. Feed was pushed daily between one and four times (47.7%), five and eight times (42.4%), and nine or more times (9.9%). Overall, 44.5% of the producers fed for refusals. Targeted refusals were: 2% or less (50.0%), 2 to 5% (34.0%), or more than 5% (16.0%). Refusals were fed to heifers on 79.6% of dairies. TMR particle length was evaluated in 57.2% of the dairies: weekly (19.2%), monthly (21.7%), and occasionally throughout the year (13.3%). In 2008, dairies reformulated the ration fed to high producing cows one to three times (30.1%), four to six times (28.8%), seven to nine times (6.8%), and 10 or more times (34.3%). Four dairies reported reformulating the ration at least 20 times. Thirty-nine dairies cited a single reason for ration reformulation: new forage analysis (n=21), new feedstuff (n=11), new DM results (n=3), and price (n=4). Most dairies (62.9%) indicated two or more reasons for reformulating diets. Feed management software is used in 39.3% of the dairies to track dry matter intake (n=42), cost of errors by feeders (n=36), cost of feed and ingredient order in the mixer (n=33), feed delivery time (n=24), and inventory (n=23). Some dairies routinely evaluated feed efficiency (n=53) and milk urea nitrogen (n=31). Only 24 dairies reported having written feed management protocols.

Significance

Survey results served to understand current feed management practices in California Central Valley dairies. There is a need to increase awareness of the importance of feed bunk management practices such as feed push-up frequency and TMR particle length monitoring. Also, there is an opportunity to maximize the applications of feed management software. The implementation of best feed management practices has the potential to maximize feed efficiency.