

DAIRY PIPELINE

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IMPROVING FEED EFFICIENCY FROM STORAGE TO FEEDING

Getting more milk or more gain from each unit of feed has been a popular topic lately. However, another equally important measure could be improved efficiency as a result of reducing losses between the feed storage area and the cow’s mouth. These losses can be substantial and effectively reduced by some changes in storage and feeding management. Here are four focus areas to consider to improve pre-feeding efficiency.

1. Practice good silo face management. Don’t drive into the silo face with the bucket low and lift up. This creates cracks in the silage mass which results in heating, spoilage and reduced dry matter intake. Shave the silo from the top down with the bucket or consider purchasing a silo facer. Shave only as much silage as needed for the next two to three hours.

2. Ground hay as a frequent addition to dairy rations. The advantage is having more precise control over particle size. However, be advised that grinding legume hay results in the loss of considerable amounts of leaves which are highest in protein and energy. In addition, most of the remaining leaves will settle to the bottom of the pile resulting in great variations in nutrient quality. Straw and grasses are more conducive to grinding with less losses.

3. Improve loading accuracy. It’s not uncommon for less experienced operators to

have trouble judging the quantity of forage in a bucket. If they are “light” or “heavy” in the addition of an ingredient to this mixer, it’s tempting to make up the difference with the next ingredient. This results in an unbalanced ration that may not resemble the ration specified by the nutritionist. Users of feed management software can monitor loading accuracy and identify where errors in loading the TMR are occurring and promptly notify the feeder of these errors.

4. Reduce spillage. How much forage or feed is spilled between the storage facility and the mixer wagon? Rapid changes in direction of the loader, roads with excessive ruts and poor surfaces at the bottom of the silo favor excessive spillage.

What does this loss in “storage to feeding” efficiency cost over 365 days? For example, a 300 cow dairy with the following feeding program: 65 lb. corn silage (\$50/ton), 5 lb. whole cottonseed (\$200/ton), 15 lb. brewers grains (\$55/ton), 17 lb. concentrate mixture (\$325/ton). Consider the impacts below of reducing losses by 5% for each ingredient:

- ◆ Corn silage = \$8,896
- ◆ Whole cottonseed = \$2,738
- ◆ Brewers grains = \$2,258
- ◆ Concentrate mixture = \$15,125

—Bob James,
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“SPRING CLEANING” — DE-WORMING

I think most Virginia Dairy producers are welcoming the signs of spring—warmer days, thawed water troughs and green grass—but the first tender sprigs of grass that our animals are picking at may harbor parasite larvae that have the potential to decrease the growth and health of our cattle. This spring’s milk prices can be a distraction to management activities such as de-worming. Young stock are particularly susceptible to parasites, and most of our dairy young stock are kept in pastures at high stocking rates that are not intensively rotationally grazed. Strategic de-worming not only reduces the parasite load in the animal but can also reduce

the parasite load of the pasture. Proper timing of de-worming can maximize the efficacy of your product meaning more “bang for you buck.” For example de-worming heifers in mid spring reduces the parasite load that they have begun to accumulate during the early warm, moist days of spring. Depending on your individual situation a second de-worming 3-7 weeks later may be warranted to take care of adult parasites that have matured since the initial de-worming. Generally by early Summer (June-July) the hot dry weather and hopefully a good de-worming program has reduced pasture parasite loads to a low level. An additional de-worming in the fall may be beneficial for external parasite control and to

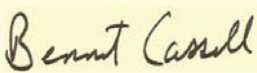
Upcoming Activities

Virginia Ag Expo — August 6, 2009 hosted by the John N. Mills & Sons farm in King William County — details to be posted at www.viriniagrains.com as they become available.

If you are a person with a disability and require any auxiliary aids, services or other accommodations for any Extension event, please discuss your accommodation needs with the Extension staff at your local Extension office at least 1 week prior to the event.

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reduce internal parasites before winter-feeding. Research regarding de-worming the lactating herd is still unclear. The system in which you house and feed your lactating cows will be a determinant to your individual operation’s risk and if you should consider de-worming. For example, Table 1, compares different cow housing scenarios and parasite loads. **As always you should consult with your herd veterinarian about your de-worming program and the products that you wish to use.**

Adapted from D. Bliss and G.H. Myers, Parasite Control Strategies for Dairy Cattle.

| Housing System | Parasite Potential |
|---------------------------------------|--------------------|
| Cows grazing pasture during lactation | High |
| Rotational Grazing Practices | Moderate-High |
| Dry Cows Grazing | Moderate-High |
| Cows with access to exercise lot | Moderate-High |
| Cows access to dirt lot | Low |
| Total Confinement | Low-None |

Table 1.

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BE CAREFUL WHEN CUTTING CORNERS

When we fall upon hard economic times, many dairy producers start to cut corners. This could include anything from discontinuing the use of teat dips to reducing bedding in stalls to eliminating expensive ingredients in the ration. All of these will help cut costs, but can also have negative long-term effects. For example, discontinuing the use of pre-milking teat dipping can increase the incidence of environmental mastitis and contribute to an increase in the bulk tank SCC. These effects will cause more economic loss than the cost of the teat dip itself. I suggest we look for ways to improve profitability while maintaining all the best management practices we know are effective in maintaining herd health and profitability. We can improve parlor efficiency and milk quality without any monetary inputs. As I discussed in a previous article, milking equipment function has a direct impact on milk quality. Therefore, now is the time to focus on ensuring a properly functioning parlor. I suggest you call your equipment dealer and make sure your parlor has had a full evaluation within the last six months. This includes, but is not limited to, graphing every single pulsator during milking time, testing teat end vacuum at the claw, and ensuring there is adequate air in the system. A visual indicator that the system is not working properly is damaged teat-ends. Hyperkeratosis, or the ‘cauliflower’ appearance of the teat end, indicates there may be problems with the function of the equipment (vacuum too high, improper ratios on pulsators, improperly functioning pulsators)

and/or improper preparation procedures. Testing the equipment, making necessary adjustments and re-testing should in turn improve teat ends, reduce machine-on time, improve parlor efficiency, lower the bulk tank SCC and improve profitability. All of which required little—if any—monetary input.

Furthermore, I believe there are far too many mastitis tubes being used to treat chronic *Staph. aureus* infections. By ‘chronic’ I mean, older cows in late lactation that have mastitis on and off throughout the course of the lactation and it never seems to really ‘clear up’. Often these cows contribute more milk to the drain than to the bulk tank. These cows may or may not have been cultured in the past, but I strongly encourage you to culture these so-called ‘chronic’ cows to get an idea as to what bug(s) you are dealing with. The likelihood of successfully treating mastitis caused by *Staph. aureus* goes down significantly with every episode of mastitis a cow suffers. Once you have the results, I suggest you visit with your veterinarian to determine which cows warrant treatment and which cows do not. I firmly believe we can save a lot of money by reducing antibiotic usage in cows that are not likely to cure. However, this does mean working closely with your veterinarian to ensure appropriate treatment (right drug to the right bug).

Bottom line is this...cutting costs is something most producers are attempting to do during the current economic climate. However, there are things we can do to improve profitability while not compromising cow-health. I strongly encourage you to consider the options discussed in this article and please feel free to contact me if you would like further information.

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