



# DAIRYINFO

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*Taking service to another level!*

## **UNDERSTANDING COW BEHAVIOR FROM A NUTRITIONAL PERSPECTIVE (1)**

Changes in feed intake must ultimately be mediated by changes in feeding behavior. It follows, therefore, that an increased understanding of dairy cow behavior should allow us to manage and house lactating dairy cows so that they can maximize their dry matter intake (DMI) and the potential of the ration provided. Research has shown that dairy cows respond best to the delivery of fresh feed and that changing the time of feed delivery changes peak activity at the feed bunk. This has also shown that feed bunk push-ups are important for keeping feed in front of cows, but have little effect on stimulating feeding activity. Increasing the frequency of feed delivery, however, does result in greater access to the feed bunk and less feed sorting. The provision of increased bunk space per cow, particularly when combined with feed stalls, results in fewer aggressive interactions and increases access to feed, particularly for subordinate cows. Increased competition at the feed bunk promotes feeding behavior patterns that result in some cows having access to the bunk after feed sorting has occurred, increasing the between-cow variation in diet consumed. Using this knowledge of how dairy cows respond to feeding management and environment, we can design and manage our feed systems to allow for improved cow health, production, and welfare.

Today's cows rely on people to provide them with sufficient food, water, and shelter to promote growth, productivity, health, and welfare. Past research in dairy nutrition focused almost exclusively on the nutrient aspects of the diet, leading to many discoveries and improvements in dairy cattle health and production. However, despite many advances in the field of ruminant nutrition, we are still faced with the challenge of ensuring adequate DMI to maximize production and prevent disease, particularly with lactating dairy cows. Since changes in DMI must ultimately be mediated by changes in feeding behavior, it is important to understand the factors influencing behavior.

During the transition period, dairy cows are vulnerable to metabolic and infectious diseases, making early detection of disease valuable. Research shows that cows diagnosed with acute metritis after calving spent less time feeding during the prepartum period (12 to 2 days prior to calving) (Urton *et al.*, 2005). In a follow-up study (Huzzey *et al.*, 2007), individual feeding time and DMI were monitored using a much larger sample size of cows. Interestingly, cows diagnosed with severe metritis 7-9 days postpartum consumed less feed and spent less time at the feed bunk during the 2-week period before calving, nearly 3 weeks before the observation of clinical signs of infection. Moreover, during the week before calving, cows were 1.72 times more likely to be diagnosed with severe metritis for every 10-minute decrease in feeding time. For every 1 kg decrease in DMI during this period, cows were also nearly 3 times more likely to be diagnosed with severe metritis.

These results suggest that changes in feeding behavior and feed intake may be used to identify cows at risk for metritis; however, we do not yet understand the causal relationship. In the work described by Huzzey, feeding time was positively related to DMI, especially for cows with severe metritis. It follows that management and housing practices that allow for increased feed bunk access will positively affect feeding time, and thus improve DMI and possibly reduce disease. We will examine more in the next newsletter. *(Edited from article by DeVries/Keyserlingk)*



## **Fall seeding grasses**

Late-summer/fall establishment of grass is often desired in many locations. Many producers do not realize how much fall seeding affects the yield of the grasses the next year. In research trials, six forage grasses were seeded at several late summer dates over a three-year period. The seeding dates were spaced approximately every 2 to 3 weeks from August 1 to November 1. Species included orchardgrass, smooth brome grass, timothy, reed canarygrass, perennial ryegrass, and tall fescue. All grasses seeded by mid-to-late September produced stands with visible plants by a killing frost for most years, usually surviving the winter. Later seedings did not produce visible plants until spring, if at all. Slow establishing species like reed canarygrass produced better stands when seeded by early September. Timothy tended to be the most variable regardless of the seeding date and next-year yield. The most important finding is that earlier seeding dates (early-through mid-August) usually had more tillers per square foot, more tillers per plant, and higher dry matter yield the following season. Delaying late summer seeding from mid-August to mid-September generally resulted in 1 ton/acre less yield the next year. These studies clearly show that delaying grass seeding in the late summer or early fall not only increases the risk of establishment failure but reduces yield of the stand the next year. Therefore, we recommend seeding grasses as early as possible during the month of August.

*(edited from an article by Dr. D. Undersander, Agronomist – UW Extension.)*

*Interested in discussing topics in this newsletter, or want to do a better job feeding and managing your cows? Call me! Our goal is to help you. That's the W-S Feed commitment!*

**VOLUME 7 – Number 8 – August 2017**  
**W-S FEED... SOLUTIONS & RESULTS**  
**THE TEAM FOR SUCCESS!**

## **AN INVESTMENT –**

Maintaining quality ensiled forages until feedout is critically important to good nutrition. Before you begin to chop haylage or silage, consider an investment in a quality inoculant or preservative! We are pleased to offer you research-tested inoculants that can impact your forage program. This includes products from **LALLEMAND/BIOTAL**. These products can help aid the fermentation and preservation processes. Get the facts today! Invest in quality forages and make a difference in your feeding program this fall and winter.

## **CHOPPING TIME...**

What is an ideal length of cut for chopping corn silage? Does length of cut impact rations? There are several things to consider when it comes to the best-length and maturity at cutting. First, the length of chop affects packing density and ultimately silage quality. The value of fine chopping increases as the crop advances in maturity and when moisture content drops to 60-65 percent or lower. It is important that knives are kept sharp and properly set so that forage is cleanly chopped. If dull blades are used, especially with overly dry silage, the results will be stringy and many large corncob pieces will remain. These factors may cause poor packing and reduce consumption rates. Knowing the ideal cut-length and maintaining equipment is critical to the quality of your silage, and ultimately to the health and productivity of your cows. It is also important to invest in a quality, research-tested inoculant or preservative to help maintain quality and feed value. Get the facts. Talk with us about maximizing this year's harvest and having a positive impact on rations throughout the fall and winter months. You and your cows will appreciate the difference.



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***Understanding Cow Behavior – a Nutritional Perspective***  
***Fall Seeding Grasses***  
***Chopping Time...***

***AUGUST 2017***  
***CHECK IT OUT!***