



DAIRY INFO

W-S Feed & Supplies, Ltd.
1805 Sawmill Road
Conestogo, ON N0B 1N0
Canada
1.800.265.2203
www.wsfeeds.ca

Taking service to another level!

The Dry Off Dilemma

In a published study in the Journal of Dairy Science (Kuhn et al., JDS 2006, 89:1713-1722), research revisited the important question of what is an optimal dry period length for dairy cows. Most importantly, cows are producing roughly 3,629 liters more milk and are most certainly producing more at dry off than when studies were previously done in the 1980's. Earlier work suggested that at least 60 days dry maximized yield in two adjacent lactations, except for very low producers or cows with extended calving intervals. However, the dry period that maximizes production across two lactations might not be optimal if it results in higher culling rates at the end of the second lactation. This research also addressed the important question of impact of days dry on lifetime production. The researchers used actual lactation yields (not 305 day) collected from DHIA on Holstein cows first calving after January 1997. Records from 458,370 adjacent lactations from 4,173 herds in 44 states were used. In addition, the actual and reported calving dates were required to be within 10 days of each other so that the farmer was managing the cow for the correct calving date.

It is well documented that first-parity cows have a more persistent lactation. This was illustrated by the fact that first-lactation cows showed the least negative impact of a dry period less than 60 days in length compared to higher-parity cows. The loss, however, was modest for first-lactation cows, and yield across first and second lactations was maximized when cows were dry approximately 40-45 days. For higher-parity cows, a minimum of 55 days dry was required to maximize yield across two adjacent lactations. However, dry periods greater than 60 days resulted in yield losses across adjacent lactations which were primarily due to the lower persistency of these subsequent lactations.

What about the effects of days dry on lifetime production? The story was a bit different here but makes sense in light of what we know about the physiology of lactation. First of all, cows with fewer than 30 days dry showed a substantial loss in lifetime production. In addition, very long dry periods reduced lifetime production. For example, dry periods of 90 days or more resulted in over 3,629 liters less lifetime milk production than cows with 40-60 day dry periods. Even cows with dry periods of 70-90 days showed losses (~2,268 liters less). The potential impact of this research is clear in light of the fact that roughly 11% of all U.S. Holstein cows experience dry periods that exceed 70 days. One important conclusion from this research is that, regardless of lactation number, dry periods *less than 30 days or longer than 90 days should*

be avoided. Shorter dry periods are better tolerated between the first and second lactations due the greater persistency of first lactation cows. For maximum lifetime production aim for ~45 days dry after the first lactation and ~35 days dry for subsequent lactations. There does not appear to be a negative impact on lifetime productivity by extending the dry period to 60 days if a cow is still milking well. Remember: Cows with shorter days dry have longer lifetime days in milk.

(Edited from an article by Dr. T. Ott, The Pennsylvania State University)

KEY FACTORS AFFECTING TRANSITION SUCCESS

The Miner Institute dairy farm and research staff has been conducting a nutrition study with dry and early lactation cows. This study reminds us all of the challenges that surround the transition period. Extensive discussion was focused on fresh cow health, physical examinations, and causes of transition failures. There are several key factors in transition cow management that affect transition success. The U of WI surveyed the transition management practices on 50 Wisconsin freestall herds, using herds with a wide range of management practices, housing characteristics, and animal evaluations. Interestingly, 5 factors were associated with the herd average Transition Cow Index™ (TCI) - a tool to assess the effectiveness of transition management programs. These factors are:

- **Bunk space.** A minimum of 76 cm of bunk space/cow in the dry and fresh pens is recommended when headlocks or other vertical dividers between feeding spaces are used. Even more bunk space is desired when a post and rail system is used.
- **Pen moves and social stress.** Frequent pen moves and entries into pens should be minimized to reduce social turmoil. Limit the duration of stay in isolated pens (i.e. box stalls).
- **Ample sized freestalls or bedded packs.** Stalls for Holstein and Jersey cows should be at least 127 cm and 114 cm wide and 178 cm and 160 cm long (curb to brisket board), respectively. A bedded pack should provide at least 10 sq. m/cow when there is a separate feeding alley or at least 12 sq. m/cow when the feeding area is continuous with bedded pack.
- **Surface cushion.** Sand is the recommended bedding for freestalls. A deep, loose surface (i.e. bedded pack or mattress with adequate bedding) is better than a hard surface (i.e. concrete or mattress with no bedding).
- **Effective screening program.** Optimal screening programs use some form of appetite assessment, have facilities that allow for easy restraint, and have skilled herdsmen. The 5 factors listed are primary focal points to improve fresh cow health and transition.

(Edited from an article by Dr. Heather Dann, Miner Institute THE FARM REPORT)

Interested in discussing topics in this newsletter, or want to do a better job feeding and managing your cows? Call us!

Our goal is to help you. That's our W-S Feed commitment!

VOLUME 6 – Number 2 – February 2016

Keep 'em growing!

Keeping calves dry and housing them in a draft-free environment is critical in helping them maintain body heat throughout the winter. Using a well-designed calf blanket can also make a difference in the growth and development of calves during these cold, and often damp months. Additionally, a well-managed calf program includes a quality, carefully-formulated milk replacer and calf starter. Calves are the future of your herd. Giving them a good start will make a difference in their growth, development... and ultimately their productivity and profitability. We can help review your calf program and work with you toward results. The goal is to *"keep 'em growing!"* ~ with a W-S FEED calf program.

Control energy intake of dry cows

"We still have far too many cows in far too many herds that leave early due to health problems around the [time of] transition," says Dr. Jim Drackley, professor of Dairy Science at the University of Illinois. Energy balance may have a lot to do with this problem. *"Dry cows don't do a very good job of regulating energy intake to meet requirements... so they easily consume more than they require."* A controlled-energy dry-cow diet is one approach to improving this situation. Data from an Illinois study (2007) shows that overfed dry cows ate 156% — and as much as 185% — of their energy requirement. These cows saw a "marked drop-off" in feed intake around the time of calving. They also had higher blood nonesterified fatty acid (NEFA) and liver triglyceride levels than dry cows that were restricted to 80% of their energy requirements. Post-calving feed intake also picked up much more slowly in these cows than the controlled- or limit-fed cows. The limit-feeding approach is not advocated for dry cows, Drackley cautions. However, controlling energy intake by pairing low-energy forages with corn silage is one solution. Check out your transition cow ration and work toward optimizing the energy in their diet. Healthy transition cows can mean better start-ups and improved productivity and profitability in the lactating herd.

(edited from an article by Dr. Jim Drackley, U of IL, 2007)



W-S Feed & Supplies, Ltd.
1805 Sawmill Road
Conestogo, ON N0B 1N0
Canada

www.wsfeeds.ca

Taking service to another level

FEBRUARY 2016

THE DRY OFF DILEMMA

CONTROL ENERGY INTAKE OF DRY COWS

KEEP 'EM GROWING!

CHECK IT OUT!