



# DAIRY CONNECTION

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## EDITORIAL

Kick off the holiday season by coming to Mandan Dec. 2-3 for the 2003 North Dakota Dairy Convention. Traditionally in October, the convention was moved by the Milk Producers Association in hopes the change in date will accommodate more dairy families and their busy schedules.

See the insert for a detailed look at this year's program. You will notice that our focus is on the future of our industry. Topics range from marketing to financing to creating new opportunities for you and your community. You'll also hear an update from the North Dakota Dairy Task Force and attend a farm tour, always a popular activity.

Many of you have read excerpts, or seen editorials responding to the recent Cornell University report that 85 percent of all U.S. dairy farms will be gone by 2020.

It's shocking to say the least, but what does this mean for North Dakota? At first glance, it would imply that producers will need to expand to stay viable. While this is partially true, small, efficient farms can still exist. But that means doing some things differently.

The point is that not only North Dakota, but all of the U.S. dairy industry is changing and if we want to be dairying 20 years from now, new, innovative and unique actions will be necessary. The Task Force has a vision; you heard it at the farmyard socials last summer. What it is looking for is still being determined, and task force members need your input to make it happen. Please make every effort to attend the session on Wednesday morning; it will affect your future. We are all in this together.

Seasons greetings and a blessed and safe holiday to you all.

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## SURVEY RESULTS TALLIED

A total of 123 out of 440 recipients completed the survey I circulated last summer. Here is a brief summary of some of the results. More will be reported at the North Dakota Dairy Convention, Dec. 2 - 3 in Mandan.

- Largest percentage of principle operators are 40-49 years of age (48.8 percent).
- Morton County lead with 14.6 percent response; Emmons County followed with 9.8 percent.
- Nearly half of dairy operators have two or fewer family members (46.3 percent).

- Average daily milk production ranged from 38 to more than 81 pounds per day with 17.9 percent in the 46-50 pounds-per-day range.
- 61 percent milked in a parlor and 95.9 percent raised Holsteins.
- The respondents were 69.1 percent Grade A and 30.9 percent manufacturer grade producers.
- The majority of your milk was marketed to: Cass Clay 50.4 percent, DFA 18.7 percent, Land O' Lakes 13 percent, and Dakota County Cheese 11.4 percent.
- 29.3 percent belong to MPA of North Dakota. 15.8 percent of the 'no' respondents said they would join if asked.
- 23.6 percent are using DHIA and 15.4 percent used the services of the Dairy Diagnostic Program.
- 33.3 percent used computerized daily record keeping.
- When asked about expansion, 22.8 percent said yes, they hope to in the near future.
- Another 37.4 percent plan to retire in 3 to 5 years, but only 15.6 percent of those responding felt the dairy would continue.
- A total of 29.5 percent would be willing to sell their dairy to others.
- 16.3 percent indicate they would be willing to get involved in a new start-up, but 54.5 percent of all respondents did not answer this question.

## ■ REPRODUCTION

### When to breed?

It has been thought for some time that optimum conception is achieved if an animal is bred 14 hours after the onset of heat. With proper heat detection, acceptable results can be obtained with the AM-PM rule.

Recent evidence has shown that animals bred once a day in the morning will produce comparable results to the traditional AM-PM ruling. This is especially useful when breeding heifers artificially.

Research from Virginia Tech by Ray Nebel shows that highest pregnancy rates occur when animals are bred 5 to 12 hours after the first signs of estrus. If you breed at 12 hour intervals (for example 6 a.m. and 6 p.m.), you would be always hitting the 'red zone', the most optimal window to breed.

If you breed once a day, you are only in the red zone half the time (even though once a day breeding has been shown to be effective). If you breed twice daily but at intervals other than twelve hours, you must miss part of the red zone. For example, if you breed at 8 a.m. and 4 p.m., you are breeding at 8 and 16 hour intervals. Therefore there are four hours each day that animals can come into heat and breeding will occur outside of the red zone. In this example, a cow coming into heat from 9 p.m. to midnight will be bred outside the red zone.

Producers trying to get an edge on optimum fertility need to make the most of their opportunities. If you consider 5 to 12 hours after the first signs of estrus as the red zone, look to see how many times you breed during the right time.

## ■ MILK QUALITY

### Can SCC be too low?

If so, how low is too low? Many will recall this topic from Dairy Cow College several years ago, when Leo Timms from Iowa State University dispelled the myth about cows having such low somatic cell counts that they were at risk. Recently, the topic has again come under scrutiny. Here's what University of Minnesota researchers Jeff Reneau and Ralph Farnsworth have to say.

The purpose of somatic cells within the mammary gland is to fight infection. While too high a SCC is undesirable from the standpoint of milk quality, some have feared that too low an SCC might result in more cases of mastitis due to the reduced germ-fighting capability.

A recent study in a single low-SCC herd indicated that very low SCC cows (those averaging 36,000) might be more likely to get mastitis than cows with higher SCC (average 112,000) when mastitis-producing bacteria were experimentally introduced into their uninfected mammary glands. The question is, do the findings in this single herd apply to your herd circumstances?

To answer this, let's first look at what's normal. A 1997 study reported in *Journal of Dairy Science* showed that 95 percent of uninfected cows had less than 100,000 SCC except in the last months of lactation. Uninfected first-lactation cows had SCC levels near 50,000 or less.

A second study, also published in *Journal of Dairy Science* in 1997, showed no correlation between herd SCC and clinical mastitis under natural conditions. In other words, low SCC herds experience no more clinical mastitis than high SCC herd.

There probably is some SCC threshold under which a cow becomes more vulnerable to infection, but it has not yet been determined. And infection-fighting ability depends not only on the number of somatic cells, but also on the cells' ability to kill invading bacteria. Well-balanced diets that meet energy, vitamin, and trace mineral requirements (in particular vitamin E and selenium) are needed to maintain a strong immune system.

So what's the bottom line? Healthy, well-fed cows with individual SCC of 50,000 (maybe even less) do not appear to be more vulnerable to infection under natural conditions than are cows with higher SCC. Herd SCC counts of 150,000 or less are achievable and desirable for both cow health and productivity.

## ■ HERD HEALTH

### What is the majority doing?

In 2002, the National Animal Health Monitoring System (NAHMS) conducted a study of dairy operations in the United States. The Dairy 2002 study, conducted in 21 major dairy states, was designed to provide information to participants and the industry about operations representing 82.8 percent of U.S. dairy operations and 85.5 percent of U.S. dairy cows.

The following highlights are excerpts from that report.

- The majority of cows were culled for udder health and reproductive problems, 26.9 percent and 26.5 percent, respectively. Poor production from an unknown cause accounted for 19.3 percent culled cows.
- Clinical mastitis, infertility problems and lameness were conditions reported most commonly for all operations, with 14.7 percent, 11.9 percent, and 11.6 percent of cows reported to have experienced these conditions, respectively.
- Overall, 8.7 percent of dairy heifers born alive died before weaning. Nearly 2 percent of weaned heifers died between weaning and calving, and 4.8 percent (as a percentage of the January 1, 2002, cow inventory) of cows died during 2001.
- Overall, 15.2 percent of operations used bovine Somatotropin (bST), and 22.3 percent of cows received the hormone.
- Preventive practices for dairy replacement heifers were very common. Only 5.1 percent of operations representing just 2.5 percent of heifers did not use any preventive practices.
- A total of 98.1 percent of producers reported heifers were born and raised on their operation, accounting for 89.5 percent of dairy heifers. Heifers were born on the operation but raised elsewhere on 3.6 percent of operations, accounting for 7.2 percent of dairy heifers.
- During winter, deer had contact sometimes or most of the time with cattle pasture (78.1 percent of operations), hay (55.1 percent of operations), or water sources (39.7 percent of operations).
- During summer, deer had contact sometimes or most of the time with cattle pasture (93.5 percent of operations), hay (69.7 percent of operations) or water sources (58.9 percent of operations).
- Rendering was the most common method of disposal for dead calves (43.8 percent of operations) and dead cows (62.4 percent of operations). Burial was the second most prevalent method, followed by composting.
- The rolling herd average (RHA) was 18,235 pounds of milk per cow (averaged across all operations) per year. RHA increased as herd size increased.
- Operations with on-farm computer record-keeping systems had a higher RHA (20,024 pounds) than operations with off-farm (19,631 pounds) and operations with no computer record-keeping systems (16,371 pounds).
- The majority (90.2 percent) of large operations (500 or more cows) fed a total mixed ration (TMR), while 78.3 percent of medium operations (100 to 499 cows) and 36.6 percent of small operations (less than 100 cows) fed a TMR.
- Oral drenching with an energy source at the time of calving may be effective in reducing energy deficits and improving milk production (Stokes, et.al.). Overall, 20.1 percent of operations reported drenching, with 28.9 percent of cows receiving an oral drench at the time of freshening.
- Waste milk was fed to dairy heifer calves on 87.2 percent of operations but was pasteurized prior to feeding on only 1 percent of operations.
- A total of 55.7 percent of operations used milk replacer that contained medication. Oxytetracycline with neomycin was the medication most common (25.6 percent of operations) in medicated milk replacers.

## ■ STRUCTURES

### Assessing freestall design

Mistakes in freestall design are commonplace — a matter of inches can make the difference between a satisfactory stall design and a herd disaster. Freestall design must be assessed from a cow's perspective to identify and/or avoid any problems in freestall design. Ask these questions when analyzing freestall design:

1. Is there adequate surface cushion?
2. Is there adequate body resting area?
3. Is there room to 'lunge and bob'?
4. Is there adequate room below and behind the neck rail?
5. Is the curb height appropriate?

*Source: Proceedings of the American Association of Bovine Practitioners 35th Annual Meeting, pg 261 (2002)*

## ■ BUSINESS MANAGEMENT

### Tips for financial management

The American Bankers Association offers these tips for sound financial management:

- Keep accurate and detailed records.
- Develop a business and marketing plan.
- Evaluate your capital investments for profitability and payback.
- Know your costs.
- Decide on what type of organization you want to run. Will it be a low-cost, very efficient operation? Or, a value-added operation that someone else in the food-supply chain pays extra money for?
- Shop around. Get price quotes on supplies, such as feed and fertilizer.
- Ask your banker about state and federal credit-enhancement programs.
- When in doubt, ask for help from an experienced farmer, trusted adviser or local banker.

## ■ LABOR MANAGEMENT

### Five steps to a positive day

Changing an attitude isn't easy. Changing any habit takes time and hard work. Dave Grusenmeyer, a human resource management specialist with PRO-DAIRY at Cornell University, offers five practices to help get you back on a positive track.

1. Never talk negatively about yourself or others, even if you're having a bad day. It only makes you and others around you feel worse.
2. When you hear others speak negatively, interject some optimistic thoughts and comments to improve attitudes. The only attitude you can change is your own, but upbeat attitudes are contagious.



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3. Be direct with people who consistently complain. Tell them exactly what words or behaviors cause you to perceive their attitude as negative. Avoid them when possible or help them develop a positive outlook.
4. Use positive self-talk and positive self-imaging.
  - Think, "I can," rather than "I can't."
  - Look in a mirror and tell yourself, "I can do it," and "I have what it takes."
  - Never refer to yourself in a negative context.
5. When things get discouraging and all else fails, take a break to get away from the situation. This may be nothing more than a quiet moment, a walk, calling an upbeat friend, reading an inspirational book or article — anything to divert your attention. Or you might take a bigger step and get away from your dairy for a few days.

We all lapse into a negative attitude from time to time. The important thing is to cancel the cycle of negativity and get your attitude and outlook turned in a positive direction as quickly as possible. You have a choice.

*Source: Midwest Dairy Business, p.10, December 2002*

## ■ MISCELLANEOUS

### Dairy food news

- Research from the University of Tennessee shows that yogurt helps bodies burn more fat. Dieters who ate three servings of fat-free yogurt daily for 12 weeks lost 61 percent more body fat including 81 percent more fat around the waistline, and 22 percent more weight (about 13 pounds) than dieters who consumed low-calcium diets. And fat-free yogurt tastes pretty good, too.
- Calcium in general is good for weight control. University of Hawaii research found that adolescent girls consuming more calcium weighed less than girls consuming less calcium. This is especially important given the increasing percentage of U.S. children (of both sexes) that are overweight.
- A national survey revealed that 70 percent of adults admitted to "ice cream indiscretions," defined as eating ice cream in bed or straight from the carton, sneaking extra servings, or pigging out on ice cream instead of dinner. Men aged 45-54 were most likely to eat from the carton, while women aged 18-34 led in total number of indiscretions, especially eating ice cream instead of dinner.