



Treat the last day like it's the first

MY WIFE and I had high hopes for our “big” anniversary this summer. We had always wanted to go to Alaska to get close to nature and the likes, but it just didn't pan out. August 6 fell on my Sunday weekend to work. Jane supported me, though, and spent some afternoon time doing “calls” with me on our special day.



Fox

Our trip to Ted's farm had me thinking . . . “common things happen commonly,” but the conversation over the phone pointed my thoughts in a different direction. Apparently, the herdsman found three dead cows in the far-off dry pen, shortly after his lunch. All of them were lying in their sand beds without any evidence of struggle. No illness was detected.

A closer inspection

I called on our way to the farm, instructing the employees to pull the carcasses out of the barn to a suitable necropsy area. I mentioned to my wife that this had the makings of a very interesting puzzle . . . she didn't convey the same enthusiasm in her face as we hurried to the farm. We arrived and found one dead critter out back to begin observing in more detail.

I usually try to be thorough and follow a plan for necropsy, oftentimes examining the udder and secretions prior to “diving in.” This cow had two hard, swollen quarters, and the secretion was very watery and blood stained. Acute toxic mastitis is occasionally seen in the dry cow, but this was not common.

As Jane elevated and mobilized the legs, I broke down the carcass. For a minute there, I thought I heard a distant, “You know . . . I didn't sign up for this 40 years ago, dear.” Probably my imagination, I'm sure, so nothing of distinction internally was noted.

We moved onto the other two dead cows once the farmhands finished removing them from the barn. The herdsman met me and was very troubled by the events. I probed for a bit more history, as we examined the udders of the pair before us. Both cows had hard, swollen quarters with purple discoloration and skin sloughing located at the base of the teats. Bloody, watery secretion was also present.

We took a few pictures, gathered sterile milk samples, and listened to the history being offered. All of these cows were dried off and infused with a common antimicrobial suspension product three days prior. We left after a discussion on what organism may have been responsible.

Subsequent culture at the office the following day revealed heavy, pure growth of *Pseudomonas* in all three samples. That got me thinking about dry-off days, as we are seeing this scenario more commonly today than in the past. Remember, most cows (and quarters) are uninfected at dry-off.

Prevention starts at dry-off

Thirty years ago in our practice we dealt heavily with contagious udder pathogens, typically *Staph. aureas*, occasionally *Strep. ag.*, and a variety of gram-positive infections. Today, fewer herds fight these same chronic infections. Many of our well-managed, sand-bedded herds have

very low somatic cell counts (SCCs), and the primary pathogens are environmental in nature.

Environmental streps, coliforms, and a mix of other gram-negative bacteria usually are the enemy. Certainly, bedding type, maintenance of deep beds, and other contact surfaces (towels, water, manure, and so forth) play a part in prevention.

Perhaps the role of antimicrobial treatment at dry-off has shifted from existing infections to prevention of new infection in the early dry period. It is one of several “tools in our toolbox.”

Certainly, our commercial dry treatment products are prepared in a manner to assure sterility. The manufacturing standards are rigorous. However, as we take products out to the barn and parlor, things can go awry. Much diligence is needed to prevent contamination from occurring.

Do we have the best tools to tackle the task? Clean, motivated people to properly milk, disinfect, and hygienically infuse udders usually requires timely training on proper procedures. I have been guilty of putting protocols on paper, failing to astutely observe the task being performed. It's in the details.

How is the lighting? Has there been adequate time to “do it right”? Are large udder prep towels being used? How about new gloves and clean sleeves?

How can we evaluate if our prep is “good enough”? We like to collect milk samples or culture teat ends prior to the infusion. A picture is worth a thousand words. Proper teat preparation is not easy, especially on older cows after 300- or 400-day lactations. Rough teat ends

can hinder our best attempts. One of my earlier mentors told me “above all, do no harm.”

A day of big changes

We in the dairy industry have been well versed in all of the biological changes our cows traverse during the transition to lactation. I would argue that the transition from lactation to dry period also comes with unique hurdles. Think about it: The cow leaves the milking herd and is introduced to new herdmates, new surroundings, a new maintenance diet, and is possibly running an immune response from a vaccination to one or more antigens. That's overwhelming just to think about!

It should not surprise us that the risk for new intramammary infection can be quite high until the udder ceases lactation. Milk is a meal most bacteria love!

Management of the “final day” of lactation and the subsequent few days in the early dry period are crucial for not only udder health but also for overall well-being as our cows head toward another successful lactation. Treat the “last day” with the same enthusiasm as the day of calving.

By the way, Jane's book on Alaska arrived the other day. I'm thinking one of my partners may be on call August 6 next year!

It's all about keeping that enthusiasm fresh from the start. It's well worth the effort we put into it. Enjoy your autumn, it's a great season! 🐄

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