

Parasites, the Unwanted Guests

I was watching a video of what appeared to be a wiggling thing inside a very small sack. The wiggling thing was actually a small parasite larva inside the egg sac attached to a small blade of grass. The larva was about to hatch.

Some time has passed since I watched the video, but the concept of parasites has not changed. Parasites are something that makes a living off of others. Parasites are not a problem of just one type of animal but all living things. Sometimes parasites can exist without even affecting the host, but other times they can be fatal to the host.

I was reminded of this video because the Dickinson Research Extension Center utilizes sheep for small-pasture grazing on the center's replicated agronomy plots. The sheep were starting to show signs of parasitism; their feces were quite loose, with some even starting to show evidence of diarrhea.

With my background of raising sheep, I was reminded of how sheep producers can get caught in a parasite trap when raising sheep. Sheep are more sensitive to parasite infestation than some of our other domesticated species and are quick to manifest the symptoms of parasite infestation.

Sheep producers always need to be monitoring their flocks and

implementing an aggressive parasite control program. More times than not, when a sheep producer experiences general unthriftiness in the flock, parasite control should be the first response.

Although the sheep sensitivity to a parasite infection served as a reminder to me to implement a parasite-control program for the center's sheep, the sheep actually reminded me of the need for producers to keep a constant vigil of all that is going on around the ranch. The question producers often find themselves asking is, "Why now?"

The answer probably was evident in the subtle workings of the ranch at some time prior to the actual problematic outbreak. If we use parasites as an example, all parasites have a rather defined life cycle, a life cycle that often includes an external and internal component. Regardless of what parasite, timely managerial intervention that is based on the life cycle of each parasite and seasonal cycles of the host is critical.

Although I am using the sheep as an example, cattle also are hosts to parasites, and the general principles are no different. Each parasite/host relationship is different, requiring a

broad understanding of the relationship, as well as a professional relationship with a herd health consultant.

In simplistic terms, the issue, and the reason for this article, was a sheep's response to the season this year. Bountiful moisture, moderate temperatures and ample forage set in play many life cycles. If you watch the numerous documentaries on interesting animals and insects or other life forms, you will see that many come to life with rain after months, if not years, of inactivity. When Mother Nature provides moisture, many life forms engage.

That is true of parasites as well. As noted earlier, many parasites require a period of time outside of the host. Eggs are passed out of the host via the feces. These eggs may very well do nothing if the weather is not appropriate for development.

A side note: Growing up on a farm or ranch that involved many types of plants and animals certainly taught many young minds the diversity of life and how different seasons brought different challenges. The bad always came with the good. The managerial question was sorting the difference and ending the season with more good than bad.

Anyway, many parasites are no different. When all is good for the grass to grow and calves to gain, the armies of weeds, parasites and other very small life forms also will take advantage and grow as well. Unfortunately, with parasites, when the external environment is ideal for their eggs to hatch, they can and will overwhelm the host.

Young calves and lambs are more susceptible because they have not developed immunity to the many biological pathogenic invaders that constantly challenge all living things. A good point to keep in mind, just as the ewe or cow seeks out good pasture for the summer, is that parasites are always seeking out a good host for the summer.

Yes, natural immunity is required for long-term survival, but as producers, you have managerial interventions that will handicap the parasite population and keep parasite effects on health at bay.

As producers, when times are good and forage seems ample, always keep in mind the need to monitor parasites. One egg and a nice damp blade of grass can make for a troublesome meal for a young calf or lamb.

May you find all your ear tags. **HW**

May Calving Is Productive

I remember discussing calving with a beef producer during one of the less-than-desirable mid-April days.

You know the kind of day: 28 degrees, wind, rain, snow, mud and other combinations of weather. A stocking cap, another cap, wet gloves, heavy boots and other cold-weather clothing are common to the occasion.

I asked how the day was going, and the response was garbled. In contrast, May calving is enjoyable, manageable and workable.

With each passing year, at least for the Dickinson Research Extension Center, the shift to May calving is easier to affirm. The center continues to May calve, in contrast to the traditional early April calving for many Northern Plains producers.

The center switched to May calving in 2012, and following late calving on grass in 2013, 2014 and 2015, the cows continue to rebreed very well.

Again this year, the bulls will be turned out on August 1 at the center,

with the expected start of the 2016 calving season set at May 10. The actual first full-term live calf was born on April 28 in 2013, April 27 in 2014 and April 29 in 2015. This timing is in contrast to mid-March for many Northern Plains producers.

Do those six weeks make a difference? Granted, many producers are done calving by the time we start, and their calves have six weeks of growth. In other words, the calves have a 100-lb. head start on fall weaning weights.

Is that a concern? Depending on how one measures the beef operation and what end point is used, those 100 lb. are significant. But the 100 lb. are not simply lost, and managerial tweaking can recapture those pounds easily.

But even without any major tweaking, at least for the center, those May-born calves are holding their own. Last year, the center's beef herd may have started 100 lb. light, but the calves actually had an adjusted 205-day weight of 681 lb. That was almost 50 lb. heavier than the Cow Herd Appraisal Performance Software (CHAPS) system's typical 205-day weight of 632 lb.

Some would say, "I don't sell adjusted weights," and that is true. But the center's calves averaged 164 days of age at weaning, with an average actual weaning weight of 540 lb. at the end of

November. That is compared with the CHAPS typical age at weaning of 191 days and an average actual weaning weight of 558 lb. with traditional weaning dates. Those May-born calves grow, and they are certainly a marketable product using traditional management systems.

What is even more interesting in reviewing last year's records is that the center's beef herd weaned 524 lb. of calf weight per exposed female. The CHAPS benchmark is 495 lb. of calf weight per exposed female.

As noted earlier, traditional cattle management certainly survives the test of time. Change is not easy, but as those around us change, new doors need to be opened, some doors need to be modified and perhaps even some doors need to be shut. Like the old barn that had 12 stanchions for cows, a couple of stalls for the horses and perhaps a grouping pen or two for younger stock, seldom would the barn fit current production practices.

Is there a particular point to May calving? The one point that comes up more and more is simply labor. That's not just the availability of labor but the overall comfort of those who do the work. There comes a point in a producer's life at which doing battle with Mother Nature becomes old. Granted, many previous battles were won, but at what cost?

Perhaps the biggest challenge is, even if the battle is won for this year, next year simply will call for more reinforcements. Producer choice is and always will be the bottom line.

Back to May calving. I am pleasantly amazed by how the cow productivity remains competitive with traditional systems. The cattle remain in good condition (5.5 condition score), and of the overwintered beef cows, 97% of last year's beef cows calved within the first 42 days of the calving season. The preliminary numbers for the beef cows this spring (2015) would suggest just a little less than 84% calved within the first 42 days of the calving season. The CHAPS benchmark value for cows calving within 42 days of the calving season is just a little more than 86%.

That's all right and indicative that the cows are breeding well in August. More specifically, this spring, 112 calves were born to 111 cows. As of June 24, two calves had died, and one cow did not calve.

Another concern that looms in the future is udder soundness. In contrast to calving in facilities where cows can be handled, pasture calving requires more attention to udder soundness. Nine of the cows were marked for poor udders. This is a discussion for another time, but May calving is a go. **HW**

Calf Weight per Exposed Female	
NDSU Dickinson Research Extension Center May 2014 calving	524 pounds
Typical North Dakota CHAPS 5-Year Benchmark March/April calving	495 pounds