

Follow-Up

—Ulf Kintzel

In e-mails and phone calls, during personal conversations as well as readers' letters, people express to me how my articles have helped them in practical terms. Statements like "your description of head gates saved many lives of motherless lambs" or "I used the grass and clover seed varieties that you recommended" are made. I get quite some positive feedback, stressing the practical applications of my articles. While I am susceptible to flattery like the next guy, the overwhelming feeling I have is responsibility. I always try, to the best of my knowledge, to give correct advice. I always read my articles over a few times and ask myself if everything I said is correct, knowing there are people out there who will try to use my experience for their own good. However, "to the best of my knowledge" isn't always correct advice, simply because my knowledge is limited. New experiences bring new knowledge. In some cases, I have to throw out the old convictions I held because there was more to the story or I was wrong. I owe it to the readers who have followed my writing to let them know when I have additional or new information available. This article will address a couple of claims I made, one wrongly and one (seemingly) correctly.

Vaccination: I had written an article about my vaccination schedule for the Fall issue of *Farming Magazine*. In that article I stated that I vaccinate my ewes against enterotoxemia (also known as Overeating Disease or Sudden Death Disease, in lambs also called Pulpy Kidney Disease). I also wrote that I do not vaccinate my lambs at a young age, assuming the antibodies in the milk that these lambs get from their mother

will give them immunity. I hold off with the vaccination until I sell the lambs as breeding stock to various customers. That has worked well for me for more than a decade. This year was a little different. I had some winter forage made into wrapped baleage, which is higher in nutrients than comparable hay. I started feeding this silage to my sheep in March when their lambs were four to five weeks old. I started seeing some diarrhea in some of the lambs. I caught about two dozen and dewormed them, assuming the diarrhea might be caused by worms. The whole flock had been treated against coccidiosis prior to this. So I ruled out this disease. Since it had been a mild March with some considerably warm days in it, it was entirely conceivable that these lambs had worms. I had also ruled out enterotoxemia simply because the signs I had experienced at different times during my 32-year journey as a shepherd were different. They included lambs being off, seemingly disoriented, heads turned back but no loose stool. Death usually occurred within a day without many signs prior to it (hence the name "Sudden Death Disease"). The diarrhea didn't stop. One morning I found one lamb dead. It was curled up and had seemingly died in its sleep. I still didn't worry. An occasional lamb just dies when you have larger numbers of sheep. That's just how it is. The next morning, I had two more dead lambs that died in a similar fashion. They all had a very foul-smelling form of diarrhea. Now I started to be alarmed. I suspected E-coli and read up on it. I treated the lambs that I thought were affected. Yet, I was not sure if my diagnosis was correct. While I still ruled out enterotoxemia, I needed certainty. However, vets with deep knowledge about sheep are rare in this part of the country and I knew none. I am sure if



Red clover was the dominant grazing plant during my breeding season last fall. Photo by Author

you are in Texas or Colorado you will find vets specialized in sheep but no luck here. So I called my colleague and mentor in Germany, 17 years my elder and with considerably more experience than me. He promised to call a couple of vets with sheep experience the next day and get back to me. He did and told me that both vets independently stated without hesitation that it is indeed enterotoxemia. It can have different forms since it can be caused by different types of a certain bacteria. It just happened to be a type that I hadn't experienced before. Besides, the lambs were already too old by a couple of weeks to be affected by E-coli, which had been my possible diagnosis. I was in luck, though that my treatment for E-coli and the treatment needed for enterotoxemia (given antibiotics to the affected lambs) had been one and the same. I now only had to follow up with vaccinating all the lambs, which I did. Still, for some lambs the treatment had come too late. In total, I lost seven lambs to this disease.

The fact that I had fed forage considerably higher in nutrients than usual was likely the culprit for my losses. The onset of diarrhea and the start of feeding the baleage pretty much coincided. So a correction to my advice about not needing to vaccinate the lambs against enterotoxemia would be to give them their first shot at the age of about three weeks, at least no later than six weeks, especially if you are feeding high quality forage or even grain. While the notion that the ewes pass on antibodies to their lambs is indeed correct, my assumption that the lambs are amply protected if the mothers have been vaccinated is incorrect. I felt the need to correct my own article in that regard.

Red Clover: A while back I wrote an article for *Farming Magazine* "Red Clover in Sheep Pasture?" in which I advocated grazing red clover even during breeding season. I wrote a similar article for *Small Farm Quarterly's* winter 2013 issue "Does Red Clover Cause Infertility in Sheep?" shortly thereafter. Let's recap the premise: It is said that red clover causes infertility in sheep when grazed during breeding season due to an estrogen-like substance called phytoestrogen. However, I have not experienced any such negative effects at all. Since red clover offers so many advantages, I just kept grazing it, including during breeding season. Yet, I always had a nagging question in the back of my mind if it was a responsible thing to do, to advocate grazing it while the sheep are being bred.

In at least one of these studies examining the influence of red clover it was suggested that the effects of this estrogen-like substance are less when the clover is higher and

is in bloom. This is when I graze it on my home pasture, but I have always wondered if one would need to be more careful if the clover is younger and shorter and before bloom. It so happened that during my second breeding season of the year I was pasturing my sheep on the neighbor's field most of October and into November. Guess what one source of income this farmer has from his farm? Growing medium red clover for seed production!

Since I made lots of pictures during that time, it was easy for me to check what the sheep ate at what dates and how the lambing percentage corresponds with that time. Leading up to the onset of breeding season, I had already been grazing on his farm for 19 days. The fields I grazed were either small pieces of straight red clover or old hayfields that had been frost-seeded with this legume and then harvested. The regrowth of this legume was considerable. I would estimate that during that time the intake of red clover was never less than 50 percent. From there I moved to several fields that were not always full of red clover and had some orchard grass and alfalfa. However, since this farmer had been growing red clover for seed for many years and since this is upstate New York, there is *always* red clover *everywhere*. From these small pieces I moved to one large parcel with 80 to 90 percent of this legume, only interspersed with some weeds and some small wheat plants that had germinated after harvest. In addition to its abundance, the red clover was also quite short. (By the way, clover tolerates close grazing after the onset of dormancy very well). Grazing this large clover field during breeding season happened to correspond with the height of my lambing season in March, but more about that later.

I use a harness which I mark with differently colored crayons during breeding season. I do this in order to know what ewes were bred at what time by which ram. This is important to me for various reasons, one being my management of my lambing season and another being the fact that I need to be able to sell groups of ewe lambs with unrelated ram lambs for breeding purpose. In short, I can't just throw all my rams into the flock without knowing who is breeding whom and when. Once breeding season is concluded I let the flock go through the chute and mark the ewes with a dot on the wither with a spray paint designed for sheep. I use the same color spray as the crayon color. The crayon marking will disappear after some time while the spray paint will last the next five months until the sheep lamb. When I did this I noticed 16 ewes without any marking. That is eight percent of my breeding ewes and it was seemingly a worrisome sign. I did have the



short red clover in the fields in the back of my mind when I ran the sheep through the chute that day and it kept being there all throughout winter.

Fast forward five months and we are in my spring lambing season. (Half the flock had already lambed in February. The lambing percentage was almost 170 percent. While that is at the lower end of my expectation, it is still a respectable result that I can live with. These sheep had grazed mostly orchard grass and white clover while breeding.) Lambing season in March started slowly. Instead of the five ewes on average per day, I had three or sometimes four sheep lambing a day. I was wondering why that was. (I figured out later that the onset of the second breeding season must have been almost exactly two cycles later than the first one and therefore a smaller percentage of ewes was coming into season the first ten days, which was the length of the first breeding season.) Then, ten days later, it hit; 19 sheep and goats were lambing and kidding the same day. It so happened that our children had school spring break and were home for a week. They were a great help. Between lambing and my regular chores, I was a bit overwhelmed. The next day I still had a large number of sheep lambing and then it tapered off a bit to the five on average I had anticipated. As it turned out, all the ewes without markings from the breeding the previous fall were pregnant. The green-colored crayons I had used had not been working properly; they were probably too dried out. The lambing percentage was overwhelming. As of this writing it stood at 185 percent. However, if I select out the lambs from last year that I also let breed the same year they are born, the lambing percentage stood at 195 percent for all ewes two years and older. This does not include the stillborn lambs, which would have to be added to evaluate conception rate and

if and how the red clover influenced it negatively. In addition, as of this writing only a single ewe seems to be empty and will not have lambs. All others were pregnant.

So I can now say with even more certainty that I have not experienced any negative effects with grazing red clover during breeding season, even when it is quite short and not blooming. In fact, the quality of the legume is quite possibly a big contributor for such tremendously good lambing percentage. I readily admit that I am still left to wonder if other breeds are perhaps more easily affected. I also speculate at times if I had over the years inadvertently culled those sheep that were indeed sensitive to grazing red clover during breeding season when I culled the few sheep each year that didn't have any lambs. However, the numbers—in some years as low as one—are just too low to think that red clover may have been the culprit.

I found this story was worth sharing. I breathed a big sigh of relief that I could let my previous articles about grazing red clover with sheep during breeding season stand. Or was that sigh of relief more about the fact that my lambing season was not negatively impacted? Whichever it was, I will graze away that red clover. It is nutritious, highly digestible, and well liked by sheep. I will keep ignoring the inevitable future articles in the leading sheep publications that will warn me once again about the danger of grazing it during the breeding season.

Ulf owns and operates White Clover Sheep Farm and breeds and raises grass-fed White Dorper sheep and Kiko goats without any grain feeding and offers breeding stock suitable for grazing. He is a native of Germany and has been living in the US since 1995. He farms in the Finger Lakes area in upstate New York. His website address is www.whitecloversheepfarm.com. He can be reached by e-mail at ulf@whitecloversheepfarm.com or by phone at 585-554-3313.

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