

Don't Neglect Those Feet and Hooves

Marty Favre

This has been an extremely wet year for us in mid-Michigan. We have always known that it is important to enable sheep to have a dry place to seek shelter. Unfortunately, the constant rain of last fall, plus a mistake in the placement of two of our shelters made it impossible to insure dry quarters. Suddenly, in mid-December, we had a limping wether. We had never had limping sheep before, so we figured this was the result of a rough encounter with the ram he was companion to. However, the next day, the ram also started limping! This was the beginning of a two month exercise in maintaining our determination to restore our flock to full hoof health and learning a new spectrum of skills to keep our sheep healthy. I would like to share what we have learned.

Panic is the only word to describe the feeling that comes of being told by your vet that your sheep have foot rot! We would have been spared a lot of worry if we had a sheep vet instead of a very nice bovine/camelid vet who knows a lot of general things about ruminants, but not much specific about sheep. He is learning. Our vet told me that we had foot rot. According to him, you can tell by the black line between the hoof wall and the soft part of the foot. Naturally, I went to my beginner sheep keeping books and, sure enough, they talked about foot scald and contagious foot rot. There was only a vague reference to other foot problems. Since it wasn't scald, and since our vet said it was foot rot, we figured we must have foot rot.

We could identify two possible sources of the bacteria that causes contagious foot rot. One was having taken sheep to the Michigan Fiber Festival. The other was the shearer. We decided that the Fiber Festival couldn't have been the source, because the problem first emerged with sheep that hadn't gone. We then blamed the shearer for quite a while until it became clear that we didn't have the contagious kind.

A timely newsletter from Pipestone Veterinary Supply referred to a hoof problem they were having with "white line disease". Since I had also seen white lines in the sheep hooves, as well as the black ones referred to by my vet, I decided I needed to know more. An on-line search took me to a website: www.organicvet.reading.ac.uk/Sheepweb/disease/lame/lame.htm

This website referred to Foot rot and Scald as the main causes of lameness, but also stated that there are many more. One of these is described as "White Line Separation". The website says, "The white line is the site at which the horn of the wall of the hoof joins that of the sole. It is a naturally weak area in the horn and there are two problems that can occur here, both eventually leading to lameness. The first problem occurs when a toe abscess develops along the white line. Pus forms and the animal becomes acutely lame. Some animals suffer repeated attacks, probably due to a permanent defect in the horn."

"The second problem is a more extensive degeneration of the white line. This is called shelly hoof, and is characterized by pockets, impacted with dirt and other debris, where the hoof wall has become separated. Mild cases, not necessarily leading to lameness, are very common. More severe cases get abscesses and become lame (Scott and Henderson, 1990; Winter, 1998)."

What a relief to find that our problem wasn't as seemingly impossible to overcome as we had thought! We isolated the sheep with problem feet, trimmed and trimmed and medicated from the inside with LA 200 (two doses, three days apart) and on the outside with Koppertox. (We used Koppertox instead of a footbath because it was January. We painted on the Koppertox and kept the sheep inside on dry bedding until their feet dried so we wouldn't get frozen feet.)

These are the steps we are implementing to prevent this from ever happening again: First, we trim our hooves more often. We had been told by an old experienced sheepman/shearer that twice a year was plenty. That may work if you are sending your sheep to market or if you have rocky places for your sheep to walk. We still aren't trimming as often as I would like, but finding enough time is definitely an issue. We are trimming about 4 times a year, now. We also are reworking our facilities. One of the things we plan to have on hand in the future is a supply of rough concrete paving stones. If we had placed pavers on the muddy paths that the sheep made going to and from their shelter, they would have not only kept mud out of their feet, but they would have been self-trimming their own feet to a certain extent.

When we trim hooves, now, we have learned of two essential tools. One is the need for a hoof knife; the other is a sheep deck chair.

For those of you who haven't seen one, a hoof knife is about the size of a paring knife, but has a curved tip. This curve, though hard to sharpen, is the best way to carve away at awkward and suspicious places on sheep feet. The two surfaces that face each other on a hoof can easily become distorted or cracked. If you have any suspicion that there could be a pocket in the hoof material, it will save time, aggravation, pain for your sheep, and money for you if you will pare away at the suspicious area to smooth it out. If you have a problem hoof, you may even have to pare until you get to fairly raw flesh. It is important to follow any veins of dirt, manure, or deteriorating hoof with your knife until you get to completely sound flesh or hoof. If you are patient, it can be done without causing a lot of pain to your sheep (although they will definitely be annoyed at you). An easily found product called Koppertox (used to treat thrush in horses) can be painted on the hoof to kill bacteria. (I tried dipping the feet for a while. I found that kicking sheep splashed too much. Painting is less wasteful and much less messy.)

The other benefit of the hoof knife is that you can use the long blade to carve away thin slices of the soft heel. A well trimmed sheep foot is level across the back and has even tips. Also, ideally, the bottom will parallel the growth rings that you can see on the hoof. I never realized there were growth rings until last winter. Before, when we trimmed, it was based on trimming away folded under hoof material and making the toes shorter. I am still working to restore my older sheep to better hoof shape. The ISBONA Newsletter, Winter 2003, has a very good illustration of hoof anatomy. It doesn't have a good list of tools, though. Hoof shears and a hoof knife are essential. A small jar with an inch or so of Koppertox in it (to limit loss and mess if your sheep happen to knock over your jar) and a small paintbrush to paint Koppertox onto suspicious places are extremely valuable.

If you are trimming a sheep's hooves because it was limping, it would be a good idea to give it an injection of LA 200 and paint the hoof with Koppertox. This treats possible foot infections inside and out.

The sheep deck chair seemed like a luxury when I first saw one in a catalog. However, I am completely inept when it comes to sitting a sheep up on its end. We tried haltering the sheep and having David (try to) hold them still while I did the trimming. A sheep on three legs has a lot of wiggle and many kicks. We could manage the gross trimming, but the careful trimming to do a good job and to expose pockets that might harbor infection was impossible. We bought a deck chair and what a difference! I can usually trim our ewes and lambs when David is at work. (I still need

help with the rams.) An added benefit to having the deck chair was that it made tattooing and tagging the lambs much easier this year.

Finally, I read Laura Lawson's booklet, Hoof Care, LDF Publications, 1993. It gives a very clear description of how to trim a hoof. More importantly, it presents a compelling argument for the need to supplement your sheep's diet with zinc methionine. According to the booklet, your sheep mineral may list zinc as a component. However, only zinc methionine remains available for direct absorption when used as a dietary supplement. Zinpro 40 is recommended as a product that contains zinc methionine. It is listed as being available from "pbs Livestock Health" at 1-800-321-0235. Apparently, from this source it comes in 50 pound bags at \$75.00 each. (p. 17) I ordered mine through Useful Lama Items (1-800-635-5262 or www.usefullamaitems.com). It is sold in 1 pound increments at \$1.80 per pound. Laura Lawson recommends feeding this product at the rate of 1 gram per head per day or 1 ounce per 28 head sheep per day. (p. 16)

(If treating foot rot, don't use LA 200 while supplementing with zinc. According to the booklet, tetracycline (such as LA 200), oxytetracycline (Terramycin), and chlortetracycline (aureomycin) interact with zinc. Zinc can reduce the absorption of the antibiotic and the antibiotic can reduce the absorption of the zinc. (p. 23)

I hope sharing my problem and the solutions we found will help other new shepherds avoid the panic that hit our farm last winter. Prevention is definitely easier than the cure!

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