

## OMGP Education Article April 2008

### Winter Scourge AKA Hoof Rot

One might wonder why I continue to pick this subject. Bottom line is I am still learning how to deal with it in a more efficient and cost saving way. A new barn is coming this summer and with it will come cleaner, drier conditions for my goats. With an increased herd size came an increasing battle with mud and compacted soil. I doubt that anyone out there has their herd moving through clean mud so I will share my ongoing knowledge.

First and foremost is keeping your goat's feet trimmed. If you can keep their feet in such a way that they have a broad base of support, there is less chance of mud being able to stay up in the cleft. This also creates more air circulation so that this area can dry. If you will notice in the human population, folks that sustain fractured bones do not remain in solid casts for very long. Infections and disrupted skin surfaces were common problems with casts that were left on for a prolonged period of time. The cleft, that area between the hooves, needs to breathe in order to stay healthy. Being up to their hocks in mud is an unsanitary hell for your livestock. I have to admit that I do have some areas of boot-sucking mud, better known as THE CESSPOOL, but I am trying to correct those as quickly as I can with application of rocks and gravel. Even so, I have a real problem with sore feet because the bacteria is prevailing in the soil and bedding that my goats inhabit. All of the trimming in the world is not going to correct the conditions that I have.

Having been a nurse for many years, I have a bit of knowledge of how bacteria work. Bacteria have to have the proper conditions to proliferate. Our wet and muddy barnyards and fields are like a Petri dish. They provide the right growth medium for the bacteria that plagues our goat's feet. Optimally we would remove the wet and mud. That should do the trick right? The answer to this question is no because bacteria are extremely adaptable, being able to lie dormant for long periods of time waiting for the right conditions to promote growth. There is one bright note in this. By decreasing the sheer numbers of bacteria on a regular basis can decrease its ability to procreate and cause problems. Bacteria are always present in the soil but by treating the soil where conditions are ripe for infestation can lower the incidence of disease in your animals. So we just trot down to the local farm store and buy some spray and get to it, right? Whoa there Nellie, first you need to put some thought into what it is that you are going to spray and to what degree this chemical is going to affect you, your animals and your environment. The days of putting to use the questionable joys of modern chemistry with wild and irresponsible abandonment are over. Cancer and other ailments are on the rise. This is due not only to tobacco, alcohol and other nasty habits but also to the environment that we have created. I have done a little online research into some very common things that we can use, leaving out the fancier antibacterial solutions that are available.

The first that I looked at was the use of lime. This has antibacterial properties, is fairly cheap to buy and is widely used in many applications. In fact it is so widely used that it has become a major problem especially in farming communities that produce grass seed! Aside from the harm that it does to the environment, especially to amphibians and fish, it can potentially produce very nasty, difficult to heal burns. This probably wouldn't happen if your application is light and followed by rain or turning of the soil but using it in bedding areas and especially when young animals or animals with open wounds such as hoof rot will be using the space, the potential for injury is there.

I moved on to our all time favorite, chlorine bleach. It is used extensively for whitening and brightening our clothes. A diluted solution is dandy for cleaning surfaces to kill bacteria. Quite economical and easy to use was what I was thinking until I delved further on the Internet. Come to find out that bleach when it is combined with soil breaks down into another sort of chemical that is obnoxious to the environment. It again is potentially harmful to amphibians and fish. Dang it, I thought I was on to something that would clean up my act!

Guess what came up as a healthy alternative to bleach? Good old vinegar!!! It is an old fashioned cleaner that has an endless list of uses. You can even drink it and be healthier as a result! It's not as cheap as bleach but worth a try. It works by changing the acidity of the soil and this produces an antimicrobial environment. An added benefit might be to bring back those lovely blackberries that our goats love so much. I haven't given this much of a try yet but I did do a little experiment by pouring it into a mucky trail between shelters. It may have been my imagination but I really thought that I saw less limpers for awhile. Because it has been a busy couple of months with kidding taking the front seat, I have yet to set up a 'lab'. I will start weaning in the next few weeks. I am going to treat the area that my weanlings go into with vinegar by first cleaning out the bedding and spraying before clean bedding goes down. I then will spray with a slightly more dilute solution over the muddy areas and also the grassy area that they will have access to. I am planning to spray on a regular basis while they are in this paddock and shelter. I am hoping that I will have some good results. It will be somewhat labor intensive but a great learning experience.

Some other products that I am trialing as well, I bought from the Premier catalogue. One is a salve called FootCure. It is a paste made up of wool grease, copper sulphate, acetic acid and aerosil. Interestingly enough, acetic acid is basically vinegar. HMMM. It is to be applied to the cleft after you clean all of the manure out and dry it a bit. The salve is very stiff so I heated it in the microwave to soften it. If you are going to house your goat during the healing process in a dry area you can just use vet wrap to keep the salve on and the hoof dry and clean. Otherwise there is a nifty plastic boot that you can also get through Premier that fits on the foot and has a webbing closure. This will ensure that the foot stays clean. If you use either, you should only leave it on long enough that the cleft has a chance to heal. Check the boot or wrap frequently for any signs of circulation impairment or pressure sores. I used both the salve and the boot today for the first time and will give a critique on both products in the future.

Another option is to use a footbath on a regular basis. I doubt that this alone will conquer an existing problem but should work as a preventative. There are pans available and solutions to put in them in the catalogues. You would need a channeling system to move your goats into and be able to make each goat stand in the pan long enough for the solution to soak in. This would have to be done on a regular basis to be effective. I am not yet set up to use something like this but will definitely consider it in the future. I probably would start by using the vinegar rather than copper or zinc solutions as they can cause a buildup and toxicity in the soil.

There is one more product that I will mention. I am only pondering whether it is worth using or not. We all know that there are numerous vaccines on the market for our goats. I should amend that statement by saying that these vaccines are on the market and your vet can advise you on the usage of them. We all use clostridium and tetanus vaccines. Both of these are bacteria. There is a vaccine that is mentioned as an ovine product. This would mean to me that it is to be used in sheep. It is called Footvax. It is advertised as a 'multi-strain ovine footrot bacterin for the prevention and treatment of footrot in sheep. It protects against 10 strains of Bacteroides nodosus'. I need to take some of my dogs in for their rabies vaccine and I sure will be talking to my vet about the efficacy of this vaccine and it's possible use in my herd.

I am hoping that by using multiple avenues of prevention and treatment in my herd as well as some very thoughtful culling criteria that I will find myself looking out the window in the future at my herd frolicking without a sign of a limper in the bunch. This is just one aspect of responsible and humane herd management.

May your pastures be green and rapidly growing with the return of the Sun.

Linda DeHart  
Vice President, OMGP