Rain rain go away. Not permanently; just long enough for us to get things dried out again! This winter has been a wet one for us. More bedding was used than we typically would and animals had to be moved to higher ground a couple times due to standing water and mud. One might say this winter was a true test of our operation and the traits we have selected for over the years. Although unpleasant, we on occasion have had to face the fact that some of the breeding we have done didn’t prove as durable in the constant rain and mud as others. Simultaneously, we got to see some of our bloodlines really shine in the face of this difficultly. As I continue to reflect these facts, I feel it prudent to start the conversation of hoof health.

Every farm is different however, if an animal or practice causes problems; change is needed. Mud is a great petri dish for bacteria and when it comes to hoof health and durability, nothing tests a hoof quite like moisture. Hoof Scald and Hoof Rot are the most common issues that take hold in moist and muddy environments. The good news is our selection process and the supplementation we offer as breeders can dramatically reduce the susceptibility of hoof rot. Before we dig too deep into this conversation though, we must first understand the primary cause of Hoof Scald and Hoof Rot.

Hoof Scald and Hoof Rot are most commonly caused by the bacteria Fusobacterium Necophorum. This bacterium is a normal resident of the digestive tract in ruminants, and can live in the soil for up to 10 months. Additionally, F. Necophorum secretes a toxin that interferes with the white blood cells and causes tissue decay and pockets of pus. This bacterium cooperates with other bacteria such as Bacteroids Melaninogenicus and Dichelobater Nodosus which produce protein-degrading enzymes that damage the subcutaneous tissues and tendons as well as the connective tissue between the flesh and the hoof itself. These bacteria thrive in moist areas and can often be introduced into the soil by one infected animal only to quickly spread to others. With this in mind, how can we prevent and slow it down?

Treatment with antibiotics such as oxytetracycline, penicillin, and sulfonamides are proven to be effective once an outbreak occurs but there are many things we can do to prevent problems before they take hold. One such solution is through the mineral we offer and feed. The hoof as it grows, uses Zinc, Iodine, and biotin. Zinc helps make a harder hoof. A harder hoof is less likely to crack giving bacteria an entrance point. Iodine improves blood flow to the hoof. Improved blood flow increases the ability of the body to fight infection should bacteria get introduced. Biotin will help with the growth rate and consistency of the hoof. Although no one loves trimming feet, stimulating the speed of hoof growth following a problem can help the hoof heal quicker. By increasing the dietary levels of each element to adequate levels, we can reduce the susceptibility of infection.

Another solution is in management of the soil in areas goats are likely to congregate and stand for extended periods of time. Anywhere goats gather and spend extended periods of time will quickly be covered in feces, urine, and general moisture. Moisture in particular is a major problem for hooves. Whether the hooves are perfectly trimmed or overgrown, moisture will soften the hoof and irritate the skin. This combination will give opportunity to bacteria to ravage the hoof quickly. Improving drainage and building up the ground with products like rock or lime can reduce the overall moisture content of the soil and therefore the ability of F. Necophorum to run rampant. If building up the ground is not possible, consider moving feeders and water tanks often to minimize moisture and mud build up.

Finally, consider selecting your keeper stock from does and bucks that show less susceptibility to hoof rot. Hoof size, shape, and even movement habits of certain stock may have an effect on the number of hoof rot cases a farm will encounter. For instance, in our herd we have found a larger foot almost entirely eliminates the likelihood a goat will get hoof rot compared to goats with smaller hooves. This discovery has led to a greater focus on hoof size in our selection process. In spite of all of the mud this year, our larger hooved goats did not develop hoof rot while many of the smaller hooved goats did. Selecting from stock that are less susceptible to hoof rot will dramatically reduce the need for future antibiotic treatment.

As producers we continually strive to improve our stock, the products we offer, and reduce our inputs. Hoof Rot and Hoof Scald have the capacity to cost producers time, money, and possibly their sanity. Investing in preventative measures will not only improve our herds but ultimately our bottom lines as well. I will leave you with one question. Are you focused on your hoof health?