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"Stocker Cents" article

Welcome to my Mud Farm: Dealing with the Impact of Mud on Cattle Operations.

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While Mississippians are well versed in muddy winters, weather conditions these last few months have brought about some of the wettest conditions on record. I've joked more often than I care to admit that we're farming mud this time of year at our place. We typically expect winter and early spring to be the wettest time of year for our area. When we combine this with the fact that it's also the time of year that much of our pasture is dormant and most producers are relying on feeding cattle both hay and supplements, it can make for very messy conditions. Cattle congregate around feeding and watering areas, which can cause trampling damage to forages. Tractors, trucks, and other vehicles create ruts in pastures and especially through gates and lanes. When we throw in calving on top of this, it can seem like an insurmountable issue.

Impacts of Mud

The mud itself creates a variety of health issues for cattle. Mud can negate the insulation value of an animal's hair coat. This is of particular concern for newborn and young calves. Calves can become chilled, trapped in mud, or pathogens in the mud can cause the calf to become sick. Monitoring calving pastures is always important, but particularly so when faced with muddy conditions. If possible cow/calf pairs should be moved to fresh pasture after calving, or it may be necessary to roll out hay to provide calves a dry area to congregate. Mud around hay rings can also cause concerns for new calves as they may lay close to this area and be trampled by cows coming up to eat.

Foot rot is also of concern in these muddy conditions, and cattle should be monitored closely for signs of lameness. When the hoof and the skin around the hoof are constantly exposed to wet conditions, this can lead to breakdown of the tissue. This then opens up the area to bacteria which can lead to infection. Swelling and lameness are some of the first signs that an animal has footrot, along with the tell tale stench of course!

Mud can also have a big impact on energy expenditure. These impacts can be noted both in terms of dry matter intake and decreased gains. With just 4 to 8 inches of mud ("mild" conditions) intake is reduced by 15% compared to the same conditions with no mud. In severe mud conditions (1 foot or more), intakes can be decreased by 30%. Mud creates suction on hooves that makes simply moving around more difficult, which causes this increased energy expenditure. I know for me it's a tough workout walking through mud this time of year. The major impacts can be found in decreased body condition scores in cows, and reduced weight gain in calves. Research has shown that as mud increases from dewclaw to belly deep, cattle can experience loss of gains from 7 to 35%.

Managing Mud

While the ideal solution would be to eliminate mud completely, we all know this isn't very feasible in the real world. The goal should be to reduce these impacts of mud. Start with identifying high traffic areas on your farm. This includes areas where cattle congregate to eat or

drink, places where cattle or vehicles move on a frequent basis, and cattle handling areas. Pads may be constructed in these heavy use feeding and watering areas. These include ground protection using geotextile fabric, concrete or other materials. It's important that the pad is designed to be large enough to be effective. A pad that is too small may cause more issues with mud. Using rock or other hard packing materials is often a good idea for areas such as gates or alleys.

Hay feeding areas present a special challenge. If only one or a few areas or used to feed hay over the winter period, mud can become especially severe in these areas. However, frequently moving hay feeding areas across a larger area of the pasture can result in more widespread damage to plant cover, but less severe mud in any one area. Be conscientious of the starting location of feeding hay. If you begin feeding hay in an area near the gate, the ruts and mud from the tractor and cow congregating may make the area near impossible to drive through after a time. If possible start feeding hay at a far end of the pasture and move progressively closer to the gate over time.

Soil type and topography of the pasture is also a consideration when managing mud. The USDA NRCS website offers a web soil survey online application that can be used to map soil types on an individual pasture on a farm. Visit https://websoilsurvey.nrcs.usda.gov/app/HomePage.htm for more information. Some soil types are less prone to mud accumulation due to better drainage.

While avoiding mud entirely is a difficult task, there are several steps that producers can take to minimize the impacts of mud on their farms. There is not a one size fits all solution for every farm, and it is important to take into account the individual difference of each operation when coming up with a plan for managing mud. While mud can be a pain at present, let's all remember to be thankful for this moisture come late summer when it's hot and dry, and we are all wishing for some rain!

For more information about beef cattle production, contact an office of the Mississippi State University Extension Service, and visit extension.msstate.edu/beef.