Feedlot Foot Care

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Producers commonly find lame cattle in the feedlot. This article will address some common causes and give some practical approaches to treating these lameness cases. I will discuss only four of the most common causes of lameness that I see on feedlots here in Ontario. This article will not provide a complete list.

But first, two disclaimers:

1. This article is specifically geared towards beef animals in a feedlot. There are similarities between dairy cattle and beef cattle--for example, both types of cattle have four feet--but this article is not addressing the routine, maintenance trim that dairy cattle require. No, I am referring to those unfriendly, poorly trained, downright wild beef cattle that are limping badly, usually just on one foot, requiring you to lift that foot and treat the animal without getting your teeth kicked in.
2. Many lameness issues are caused by nutritional problems. Too much protein, too much starch (ration is "too hot"), certain vitamin deficiencies, certain mineral deficiencies, and so on. Generally, multiple animals in the same group will be lame, and a good way to approach this is by inviting both your nutritionist and your vet out to your feedlot to fix the widespread lameness issue in your cattle. This article will address the so-called "single animal lameness," and will not address nutritional causes of lameness.

There are professionals who provide maintenance trims for cattle. My friend, a contributing member of this fine profession, calls himself a Bovine Pedicure Specialist (BPS). He has one of those lovely hoof trimming chutes that help him carefully (for the cow) and safely (for the BPS) lift and examine each foot. Happy is the feedlot producer who can convince a BPS to treat a single lame feedlot animal! Unfortunately, our feedlot animals usually need to be treated using the restraint facilities available at the feedlot, by the feedlot staff.

You have a nine weight steer limping badly on one limb. The rest of the group is walking fine. Here are several practical options. 1) Pull the animal for examination and treatment. 2) Separate the animal to the hospital pen for several days--less competition, less pushing around, and good rest thanks to deep, clean bedding. 3) Do nothing and hope the lameness goes away on its own. (Yes, sometimes it does! But usually it doesn't.)

Unless you have reason to think it's a mild sprain (pick option #2), e.g., pushed around coming off the truck a few hours ago, it generally is best to pull the animal for examination and treatment. The sooner you treat the animal, the quicker the response. Observe the animal walking and convince yourself which limb is lame. Get the steer in the headgate. I often use the nosebar or some additional form of restraint (e.g., halter and pull his head to one side) to limit the back and forth movement of the animal within the chute. Make sure there is good lighting--a worklight with a magnetic mount usually does the trick for me.

Besides a light, I will have four other tools: a lariat rope with a quick release, toe nippers, a hoof knife, and a battery-operated 4 ½" grinder with a hoof wheel. These are relatively cheap wheels that were initially designed for wood carving. These are not the expensive wheels that a BPS uses.

If the steer is lame on a hind limb, I ask a helper to give the steer a very good tail jack. Then I loop my lariat rope around the affected limb and lift the leg anchored by a bar behind the steer. I use the quick release mechanism on the rope to fashion a pulley, which is used to pull the leg up and back. How far back? Two to three feet, with the leg almost parallel to the ground, so that I can carefully examine the foot without concern of the steer suddenly finding a few more feet of reach in their kick and hitting me.

First, I examine the hoof. I part the toes and look at the interdigital space (the skin between the toes). I clean out the area with my (gloved) finger and ensure the skin is unbroken. If the skin is bleeding and broken, I've found the problem! Plain old footrot. Usually, the area just above the hoof will be swollen, sometimes all the way up to the fetlock joint. How can you treat footrot? Inject antibiotics ("working from the inside out"), especially a long-lasting formulation, and put the animal in deep clean bedding for a few days. This will successfully fix most footrot problems in three days. Sometimes the footrot is so advanced that further treatment will be required, or you may have to euthanize the animal in extreme cases.

Perhaps the interdigital space is just fine. I usually move the foot around, up and down. I carefully feel the fetlock and hock joints. Are they hot and swollen? Torquing the foot (twisting in a screwdriver fashion) is a really good way of finding another cause of lameness--a fractured bone. Recently I examined a heifer that was lame on its front left limb. After the heifer was properly restrained, I looped my rope around the foot and lifted the front leg. (The bottom half of the chute opened, so this was simple and quick for all involved.) That was one tough heifer. She was still walking on that leg. Limping, to be sure, and the leg was swollen from the carpus up to the elbow, but she was still walking on it. I only found the problem when I torqued the foot with my right hand while feeling the carpus ("front knee") with my left hand. There it was--a grating, grinding, clicking feeling in the joint--the feeling of a broken bone. Unfortunately the heifer was unfit for salvage and needed to be put down.

Sometimes I lift a foot and find that one or both hooves are dramatically overgrown and might even have pits or pockets in them, especially in the back part of the hoof towards the heel. Just above the interdigital space, immediately above the hoof, either on the back or the front of the foot, I find a quarter-sized red area that looks like a wart. Some people call this hairy heel wart. The red area looks like a strawberry--it's also called strawberry footrot. Yet others call it by the medical term of digital dermatitis. Whatever it may be called, it's bad news. This strawberry footrot spreads quickly through a pen. I usually use my grinding wheel to clean up the hoof, getting rid of the overgrowth. But if I find that the hoof is coming off the foot, starting back by the heel, then I rub my chin thoughtfully and talk about management and salvage options. It's good to spend the time and labour to diagnose strawberry footrot, but it sure isn't nice to deal with it. This problem will not respond well to medical treatment.

In stocker cattle, mycoplasma arthritis is a common cause of lameness. Generally the animal will have a low fever, around 104ºF, and show lameness on only one limb. Sometimes a joint is swollen in the lame limb. After I've trimmed the hoof to make sure I'm not missing anything (abscesses, double sole), nipped the toes (toe tip necrosis), checked the interdigital space, and carefully felt for any fractures and swollen tendons (severe sprains), I call it. Suspect mycoplasma arthritis, I say. Once again, I rub my chin thoughtfully and talk about treatment. Mycoplasma arthritis is another thorny problem, like strawberry footrot, and you should speak with your vet to make a good treatment plan. You will need to be quite aggressive in your treatment to have any hope of success.

There are many causes of lameness in cattle, but this short list covers the majority of feedlot lameness cases. Invest in a few tools and don't hesitate to lift the leg so you can examine the hoof more closely. You will be successful in treating many lameness problems by yourself. And as always, discuss examination and treatment protocols with your veterinarian, especially when you come across a lameness that doesn't fit in one of the four scenarios given in this article.