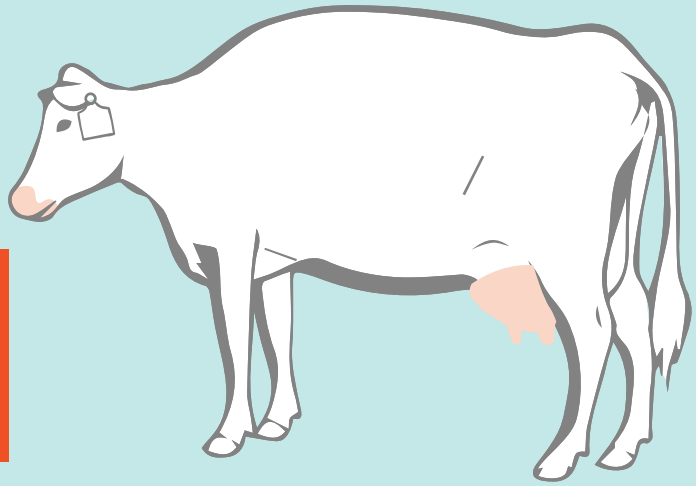
Tips for Addressing Lameness on Your Farm

What is Lameness and How Common is It?

Lameness refers to any painful condition which causes a cow to change the way she walks to limit the amount of weight placed on an affected limb(s).

While the amount of lameness on farms varies, lameness continues to be an area farmers should continue to focus on to improve animal care. Cows are lame when they score 3, 4, or 5 using a gait score or showing at least 2 in-stall indicators of lameness in a tie-stall[1].



What is the Impact of Lameness?

Cows with lameness will demonstrate several changes in their behaviour and physiology.

Research shows that lame cows will[2]:

- **Spend less time eating and have a reduced number of meals per day**
- **Reduce their overall dry matter intake**
- **Be in pain**
- **Be more likely to develop cystic ovaries and have delayed cyclicity**

The Economics of Lameness

Identifying and treating lameness early can improve animal health and comfort. Due to the behavioural and physiological changes listed above, lameness can have a substantial economic impact. Some of the economic impacts include[2,3]:

Reduction in milk production

LOSS OF 1.6 kg MILK PER DAY

LOSS OF 270-574 kg OF MILK OVER ONE LACTATION

Poorer reproductive performance

- 3-8 days longer period from calving to first service
- 11-12 days longer calving to conception interval
- An increase of 28 extra days spent open
- Lower conception rate

Researchers have calculated that these consequences lead to a total estimated cost of $230[4] per case of lameness.

A reduced price at auction has also been found for cows that were culled with an abnormal gait[5].

Cows with severe lameness cannot be shipped.

The Challenge With Detection

Many of the impacts of lameness occur when cows are experiencing just mild cases of lameness (these are the cows with a proAction® lameness score of "3" when locomotion scored for lameness). This is why it is important to know how to detect lameness early.

Studies have highlighted the difficulty of detection of lameness, with farmers underestimating how common lameness is on their farms. **A recent study showed that farmers miss most cases of mild lameness in their herds[6].**

Identify and take corrective action with mildly lame cows - they are most likely to recover.

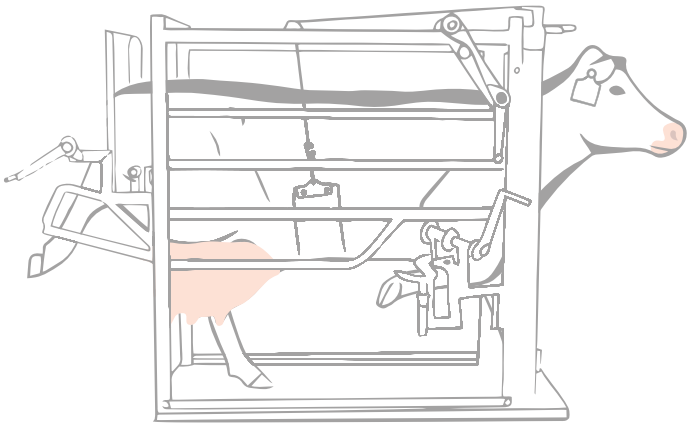
Training to improve detection is important to identify cases early in the disease process. Work with your veterinarian to identify and treat lameness on your farm.

Have a Plan

Discuss treatment protocols with your veterinarian and hoof trimmer. They can help you design a strategy based on the causes of lameness on your farm and use the most up-to-date science on lameness treatment. This will also ensure everyone is working toward the same goal, and that everyone understands their role.

Use Advisors that Have the Right Training

Addressing lameness as soon as you see it is the best way to intervene. Take a course on proper hoof trimming to ensure that lame cows are being identified and addressed properly. If you don't feel comfortable trimming lame cows, you can have your veterinarian or hoof trimmer assess and treat the lameness as soon as it has been identified. Prompt treatment will improve the likelihood of recovery for that cow.



Have the Right Tools and Equipment for Trimming

Every farm should have a way to safely, conveniently, and quickly lift feet. This will allow for the provision of prompt medical treatment, as required by proAction.

The right tools also include:

- A trimming chute
- A good, sharp hoof knife
- A hoof tester (to better understand what area of the hoof is painful)
- Work gloves and protective eyewear
- A grinder (with blades specifically made for hoof trimming)
- Hoof nippers
- Hoof blocks
- Bandaging and treatment materials
- Paper towels

Know When to Ask for Help

Your veterinarian and hoof trimmer have been trained in recognizing and treating hoof issues. If you are ever in doubt, seek their assistance and have them help you select the right treatment protocol or strategy for your cattle.

Quick Overview of the Causes of Lameness

There are a variety of diseases of the claw that can cause lameness, some are infectious (strawberry footrot/digital dermatitis, heel horn erosion/interdigital dermatitis, pasture footrot), and others are non-infectious (sole ulcer, white line disease, laminitis, injury). **View the Dairy Farmers of Canada Lameness Infosheet for more information.**

Treatment Options

There are a number of important options for treating lame cows. Farmers are strongly encouraged to consult with their veterinarian and hoof trimmer to discuss the herd-specific options.

Pain Control

One of the frustrating aspects of treating lameness is that it can take a rather long time for the animal to recover. Pain control (in the form of a nonsteroidal anti-inflammatory medication or NSAID) not only helps to reduce the pain and inflammation of lameness right away, it can also increase the chances of treatment success following lameness treatment[7].

Cows with sole ulcers were six times more likely to be sound, and cows with white line disease were three times more likely to be sound when treated with a nonsteroidal anti-inflammatory + therapeutic trim + hoof block compared with cows that were only trimmed[8].

Consult your veterinarian to determine the appropriate pain control protocol to implement following corrective trimming of lame cows.

Treating the pain associated with lameness ensures that an animal has the best chance at returning to being a productive animal in the herd.

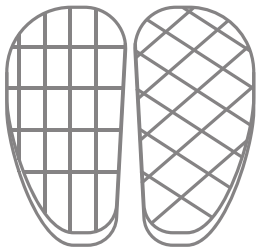
Corrective Trimming

When a cow is affected by sole ulcers and white line disease, the pain is primarily due to an accumulation of fluids in the foot. In the case of sole ulcers, this fluid is blood; whereas, with white line disease, the fluid is pus.

The goal of corrective trimming is to find these pockets of blood or pus and create an opening in the sole that will relieve the pressure and pain. The opening should be wide enough to allow drainage and prevent manure from being trapped in the wound, as it will hinder healing. Sometimes, the infection can travel deeper than the sole. In severe cases, tendons or bones could become infected. In such cases, it is vital to consult your veterinarian for treatment options and prognosis.

Hoof Blocks

The idea around using a hoof block on the unaffected claw is to remove the weight of the cow from the affected claw. This will help relieve the pain associated with the injury and allow it to heal.



If you are using a block, it is important to check that the claw you are applying the block to does not have an underlying problem.

Topical Antimicrobials for Digital Dermatitis

Topical oxytetracycline has been used for decades to treat digital dermatitis (strawberry footrot). Be aware that research suggests that cows treated topically with oxytetracycline could have antimicrobial residues in their milk[9].

Consult with your veterinarian on the appropriate milk and meat withhold times when using any antimicrobial medications.

If you are using elastic bandaging material, you need to ensure the bandage is not so tight that affects circulation. The bandage should be removed after 3-4 days, as with time, the elastic bandage may shrink and cause tissue damage.

Recovery in Deeply Bedded Pen

Ideally, all animals that are lame should have time to recuperate in a clean, dry pen with deep bedding (or on a dry pasture). This soft surface takes the pressure off the affected limb and allows more space for the animal to lie down. proAction requires that injured animals have a designated area to facilitate their recovery. Cows in these pens should have at least 120 feet^2 of space per animal.

Monitoring and Records

Having a good understanding of the lameness prevalence in your herd requires consistent hard work. Record keeping allows for identification of the prevalence in your herd, new cases, and the success or failure of new practices being employed.

Improved Treatment Outcomes

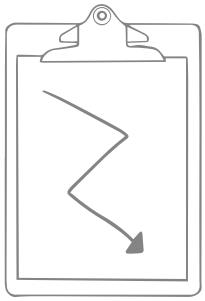
Monitoring your herd for lameness on a consistent basis means you will detect and correct lameness in a more timely manner, improving treatment success.

Technology

The use of automated technologies such as pedometry and accelerometers can help you detect changes in behavior that may be associated with lameness[3].

Records Analysis

Periodic and routine analysis of records will help you understand the historic problems in your herd. It also helps you set realistic goals, track progress, and evaluate the success of management changes or treatments. Your advisors are not present on the farm every day. Excellent records give them a detailed picture of the day-to-day experiences of your herd.



Refer to the DFC factsheet "Prevention of Lameness: The 4C Approach" for more information

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