
JULY 2022 DAIRY NEWSLETTER

Key Take Homes:

- Lameness is an economically important health problem leading to increased culling and replacement costs
- There are a variety of lameness causes that require specific interventions
- Lameness risk factors are multifactorial
- Routine hoof trimming plays a critical role in lameness prevention and early detection

Lameness

Lameness is typically the 3rd most economically important health problem on dairy farms after fertility and mastitis. Recent figures indicate Canadian dairy farms have a 35% incidence of lameness. This means 1/3 cows will experience some level of lameness over their productive lifetime.

It is easy to assume that lame cows experience lower intakes and therefore produce less milk, but this is just the tip of the iceberg when it comes to costs associated with lameness. There are direct costs of having her trimmed and the cause of lameness treated. But it is also common that lame cows experience secondary health events such as DAs, ketosis, mastitis, and poor fertility. Even if the lameness resolves and she survives to another lactation, all lame cows are at a high risk of experiencing another lameness event in her lifetime. Ultimately, the lame cow's longevity is affected resulting in increased culling and replacement costs.

Main Causes of Lameness

Digital Dermatitis (aka Strawberry Footrot)

Treatment with topical tetracycline to move from infectious stage to dormant and needs to be completed as early as possible to slow down transmission risk and permanent heel erosion. Either 1 tsp of tetracycline powder applied with a hoof wrap or tetracycline powder mixed with glycol to make a paste that can be applied to lesion with a paint brush. Don't leave wraps on for longer than 24 hours! They become wet and dirty.

Once an animal has a digital dermatitis lesion, it will never be gone. Goal of digital dermatitis prevention via footbath is to keep the lesions in the dormant stage so they do not infect other animals in the herd.

Hoof Form Lesions – Sole Ulcers, White Line Disease

Almost all cows with a hoof form lesion require a block to reduce the tension on the wound. To prevent chronic cows, we need to close the hoof wall defect as soon as possible and remove all the loose horn around the lesion without touching the corium. It is also important to give NSAIDs at the initial lameness event to decrease the risk of chronic outcomes. Once cows become chronic, they develop changes to the bone in their hoof and are at a high risk of developing subsequent lameness.

Thin Soles

Can use a thin, soft block on 1 or both sides to add extra cushion. A regular block is too hard and can lead to sole ulcer development. Can also manage these cows on a bedded pack while giving time for the sole to thicken. Monitor closely for advancement of hoof form lesions.

Corkscrew Hooves

A result of limit-feeding, overcrowding and competition. It is caused by a rotation of P3 bone within the hoof. If this occurs around puberty, then the change to P3 is permanent. If caught early enough, routine hoof trimming can try to correct the P3 angle.

Lameness risk factors

Environment

- Flooring (too slippery, new cement causes excessive wear to hooves)
- Stalls (poorly designed and increased standing time)
- Manure (dirty, wet conditions increase the risk of digital dermatitis)
- Heat Stress (increased standing time)

Nutritional - Acidosis (affects hoof horn growth)

Genetics - Breed Hoof Angles and Hoof Hardness

A final note that without routine hoof trimming for early detection all hoof diseases will progress to chronic cows that cannot be cured. Working closely with a hoof trimmer is one of the most important members of your farm consultant team. Lameness is an ever-present problem on Canadian dairies that can be managed via early detection and treatment along with good management, housing and nutrition.