# Lameness is always a hot topic!

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Lameness is always a popular topic of interest, both for researchers and dairy farmers. Here are some recent findings that you will definitely find interesting.



# Did you know …?

## … what the prevalence of foot injuries was in Quebec[1] between 2015 and 2018?

In a study of 355 Quebec herds, 29% of cows had at least one foot injury. Of these cows, 27% were milked on pipeline, 38% by robot and 41% in a milking parlour. Infectious lesions were mostly present on farms with milking parlours and robots (digital dermatitis) whereas sole hemorrhage mostly affected cows on pipeline milking. Our colleagues Anne-Marie Christen and René Lacroix participated in this study.

## … that there is a connection between the behavioural signs of lameness and the lesions in tie stall barns[2]?

The University of Prince Edward Island, conducted a study of seven farms that allowed them to establish connections between foot lesions on the hind legs and the behavioural signs when evaluating cows in tie stall barns. Sole ulcers are reported more often when cows do not rest their feet equally on the ground and when they do not move well from left to right in their stall. When cows have restless feet, there is a greater probability that they have sole hemorrhage. When they simply have a hard time putting their foot on the ground, there is a good chance that they are suffering from digital dermatitis.

## … that flies do not spread digital dermatitis[3]?

DNA analysis of barn and houseflies did not detect the presence of the *Treponema phagedenis* bacteria that causes digital dermatitis. This means that other modes of transmission are responsible for the spread of this problem.

## … what the impacts of lameness are on cows at pasture[4]?

Lame or severely lame cows show production losses of 1.4% and 4.7 % respectively at pasture. The somatic cells (SCC) and calving interval are higher for cows that show signs of lameness and they are more at risk of being culled during the grazing season.

## … that there are significant consequences for lame cows being milked by a robot[5]?

As compared to healthy cows, lame cows being milked by a robot produce 1.6 kg less milk per day and have 0.3 less milkings daily. They have 2.2 times more chances of having to be fetched to the robot.

## … that the following factors are those that affect lameness the most in robot milking[6]?

1. Narrow stalls (3.9X)
2. Body condition score ≤ 2.25 (2.1 X)
3. Narrow feed alley (1.9 X)
4. Obstruction to getting up in the stall (1.7 X)
5. Presence of hock injuries (1.6 X)

## … that there is a new technique that performs automatic lameness detection[7]?

A camera films the cows' footsteps, and an algorithm calculates the amount of time that the feet spend resting on the ground without moving during the approach. The longer the feet remain on the ground, the higher the chance that the cow is lame. This technique was able to detect 93% of lame cows. The advantage of this technique is that it does not take into account the individual morphology of cows, which reduces the risk of

error.

## References

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