<https://www.fonterra.com/nz/en/news-and-media/videos/the_hamills_using_technology_to_care_for_cows.html>

Mastitis is an inflammation of the udder and teat in lactating cows (as well as other animals and humans), usually caused by an immune system reaction to a bacterial infection. This will cause a decrease in milk production and quality of milk. In extreme cases, it will result in a cut in milk payout.

A high somatic cell count (SCC) in the milk indicates that the cow’s immune system is working hard to fight something, and is usually a sign of mastitis. Ideally, the bulk milk somatic cell count (BMSCC) for the herd should be below 150,000. A BMSCC of 400,000 indicates a serious mastitis problem in the herd, and going over this number will result in a cut in milk payout.

##### Causes

* Teat damage. This is the main cause of mastitis
* Cross contamination. Mastitis can be passed from one cow to another through milking equipment.
* Milking equipment. Poorly maintained equipment can cause teat damage and mastitis.
* Milking technique. Poor technique, particularly when removing cups can cause infected milk to be forced back into the teat canal.
* Undermilking. Failing to flush out an udder with a minor bacterial infection will allow the bacteria to multiply into a major infection.
* Overmilking. Leaving cows attached to the milking cluster for a minute or more after they have been completely milked can cause teat irritation and damage.
* Conditions. Cold, muddy and dirty conditions can cause infections.

1. Watch the video
2. Read about Mastitis
3. Justify how the Hamill’s strategic capital expenditure decision to upgrade the cowshed is going to improve the profitability of the farm.