**WHAT IS MASTITIS?**

**MASTITIS IS:**
- Inflammation of the udder tissue, usually caused by bacteria entering the udder through open teat ends
- The most common disease of dairy cattle
- Costs an average NZ dairy herd — $15,000/year

A healthy cow can usually prevent mastitis before any signs appear. Natural defences against mastitis include:
- Teat end structure — skin folds close the teat end between milkings preventing bacteria from entering the udder

**TEAT END STRUCTURE**

- **OPEN**
- **CLOSED**

- Somatic cells (white blood cells)—part of the cow’s immune system, which fight bacteria inside the udder

Somatic cell count (SCC) is a useful indicator of mastitis. It can be measured in an individual cow at herd testing or by RMT, or in an entire herd by bulk milk testing.

**To support the cow’s natural mastitis defences, you can:**
- Feed her well
- Reduce stress during handling and milking
- Keep her teat ends as clean and dry as possible to reduce bacteria at the teat ends
- Use an efficient milking technique and maintain milking equipment to prevent teat end damage

**If mastitis does occur, it is either:**
- **Clinical:** milk and/or quarter appears abnormal (clots, flakes, swelling, redness, pain, firmness of the quarter)
- **Subclinical:** milk and quarter appear normal, but SCC is elevated
  - SCC of an infected cow may go up and down, but usually stays above 150,000 cells/mL
  - Subclinical infections often go unnoticed
  - Many subclinical infections are caused by contagious bacteria such as *Staph. aureus*, which spread from cow to cow during milking
  - For any individual cow, subclinical infection can happen at any time of the year
  - On a herd level, subclinical mastitis is more of a problem late in the season, as more cows become infected and milk production decreases

**MANAGE MASTITIS:**

**Dairy NZ’s SmartSAMM is a seasonal framework for New Zealand** ([www.dairynz.co.nz/smartsammm](http://www.dairynz.co.nz/smartsammm))

**At calving, focus on:**
- Minimising stress to the cows
- Practicing good milking hygiene and keeping udders as clean as possible
- Finding and treating clinical cases ASAP
- Ensuring all cows entering the milkers have a normal SCC (<150,000 cells/mL)

**During lactation (after calving is over), focus on:**
- Perfecting the milking technique to limit the spread of subclinical mastitis

**Dry-off/dry period, focus on:**
- Curing existing infections with antibiotic dry cow therapy (DCT)
- Preventing new infections with teat sealants and/or management to keep udders clean
- Culling cows or quarters that are unlikely to cure over the dry period
REFERENCES:


FOR MORE:

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