

# **What is causing mastitis in my herd?**

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# Take home points

- **Many diagnostic tests exist**
- **CMT: not good at detecting infected cows**
- **SCC: more accurate but not perfect**
- **Culture: identifies vast majority of causes**
- **DNA test: only identifies 3 contagious causes**



# Causes of mastitis

- **Primarily bacterial**
- **Contagious:**
  - Focus on milking hygiene
  - *Staphylococcus aureus*,  
*Streptococcus agalactiae*,  
Mycoplasma
- **Environmental:**
  - Focus on cleaning up environment
  - *Escherichia coli*,  
*Streptococcus uberis*, *Pseudomonas*
- **Opportunists:**
  - Milking and environment
  - *Streptococcus dysgalactiae*

# Proven control measures

- **Correct milking order**
- **Milking time hygiene**
- **Good milking procedures**
- **Dry cow treatment**
- **Cull infected cows**
- **Keep stalls clean and dry**

# California Mastitis Test

- **Cow-side estimate of SCC**
- **Not very accurate**
- **Use "trace" as cutoff (Middleton et al. 2004)**
- **Even using "trace" is questioned...**



# Somatic cell count

- **Indicator of inflammation in the udder**
- **Varies with parity, DIM and milk production**
- **200,000 cells/ml is suspicious (Pantoja et al. 2009)**
- **Cows above this 20x more likely to be infected**



# Milk culture

- **Will detect all major causes of mastitis**
- **Tell the lab if you suspect Mycoplasma**
- **Results often presented in a confusing manner**
- **Expertise of your herd veterinarian is helpful**



# DNA test

- **Currently only detects three contagious causes**
- **Very sensitive**
- **Issues with collection from non-sterile sample ports (Klaas 2014)**
- **Best practice is to use same collection method as milk cultures**





# Questions?

