



# **FACT SHEET**

Department of Animal Science, University of Connecticut

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## **Heifer Mastitis**

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Mastitis is a costly disease. It is commonly considered to be more prevalent in mature, lactating cows. However, recent investigations have identified significant problems with mastitis in unbred, and bred heifers with clinical flare-ups of mastitis occurring at calving time in infected heifers. The following is a guideline to help identify, treat and preferably prevent heifer mastitis from affecting animal health and profitability of the dairy enterprise.

### **Guideline for Identifying a Heifer Mastitis Problem:**

1. Monitor the number of clinical mastitis flare-ups in fresh heifers. If greater than 10% of heifers per year have clinical mastitis within the first two weeks of lactation, then this may indicate a problem.
2. Culture clinical cases of mastitis in heifers. If there is a significant number of heifer with Staph. aureus infections, this will indicate a problem.
3. DHIA Reports
  1. Herd Summary Sheet  
Stage of Lactation Profile

- First lactation SCC SCR should be less than mature cows and less than 3.6.
  - 2. Current Somatic Cell Count Summary
    - First lactation cows should have the highest percent of SCC in the range of <142,000 SCC/ml.
  - 3. High Linear Score Cows
    - Goal of <10% of total animals with LS > 4.0.
4. Use the Connecticut Mastitis Control Program to monitor the infection status of fresh heifers throughout the year.
  5. If a mastitis problem in heifers is suspected, mammary secretions from bred heifers can be tested for pathogens. Yellow, honey colored secretions indicate a healthy gland, while watery, cottage cheese secretions indicate the presence of an infection. Primarily should be concerned with contagious organisms; *Staph. aureus*, *Strep. ag.*, and *Mycoplasma*.

**\*\* WARNING:** Aseptic procedures must be used for sampling, since there is the potential to infect the gland when collecting the mammary secretions.

#### **Treatment of Heifer Mastitis:**

**\*\* Treatment of heifers for mastitis prior to calving is an extra-label use of the drugs and can only be used under supervision of the herd veterinarian within the context of a valid veterinary/client/patient relationship.**

Treatment with dry-cow preparations are generally more effective than lactating cow preparations, but must be administered at least 55 days before anticipated calving date. Consider treatment if greater than 5% of heifers freshen with mastitis due to *Staph. aureus*.

**\*\*WARNING:** With antibiotic treatment, there is the possibility of antibiotic residues in milk at the seventh milking. It is suggested to withhold milk for a longer period of time or test milk with an appropriate antibiotic residue screening test.

#### **Prevention of Heifer Mastitis:<sup>1</sup>**

This is by far the most acceptable and profitable solution to heifer mastitis.

1. Use DHIA-SCC reports for an indirect monitor of mammary gland infection status of heifers. Uninfected heifers have a SCC of <75,000/ml by one week after calving.
2. Heifers should calve in clean, dry calving areas or maternity pens, separated from other animals. Calving pens should be sanitized between each use.

3. Calves should receive early, adequate colostrum intake and be removed from the dam as soon as possible.
4. Calves should be maintained in separate pens or hutches until at least one week after weaning. If calves are grouped, they should be kept separate for at least one hour after feeding.
5. Watch for suckling of heifers: Remove any calf from a group that sucks on other calves.
6. Use fly control measures to minimize skin and teat fly strikes.
7. Pay attention to environmental conditions. Avoid wet, bacteria-laden areas for resting areas indoors and outdoors.
8. Maintain adequate nutrition without over-conditioning heifers. Pay particular attention to Vitamin E and selenium which are needed in adequate quantities for the immune system.
9. Establish sanitary breeding practices.

Remember that heifers are the future of the herd. Avoiding heifer mastitis can result in greater milk yields and profitability.

<sup>1</sup> (partially adapted from Hutchinson, 1996, "Heifer Mastitis", Calves, Heifers, and Dairy Profitability, NRAES.)

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