



# National Mastitis Council

## Recommended Mastitis Control Program

Name/Farm: \_\_\_\_\_ Date: \_\_\_\_\_

### 1. Establishment of Goals for Udder Health

- Set realistic herd targets for average somatic cell count (SCC) or linear score and clinical mastitis rate.
- Review goals on a timely basis.
- Prioritize management changes to achieve goals.
- Other:

### 2. Maintenance of a Clean, Comfortable Environment

- Ensure proper stall usage by assessing adequacy of stall size and design.
- Maintain clean, dry, and comfortable stalls through frequent bedding management.
- Keep cow lots and resting areas clean and dry.
- Ensure ventilation system is functioning properly.
- Ensure proper stocking density in facilities.
- Control neutral-to-earth (stray) voltage.
- Provide fresh feed immediately after milking to ensure that cows remain standing.
- Other:

### 3. Proper Milking Procedures

- Apply pre-milking teat disinfectant that completely covers the teat skin for at least 30 seconds or use a sanitizing solution to wash each cow's teats for at least 10 - 20 seconds.
- Examine foremilk and palpate glands to facilitate early detection of clinical cases.
- Dry teats after the appropriate contact time for pre-disinfectant or immediately following washing.
- Use single-service paper towels or properly cleaned single use cloth towels for each step. Remember – one cow, one cloth.
- Maintain clean hands or wear gloves during the milking process to limit spread of infection.
- Attach teat cups squarely and level with the udder within 60 seconds of udder preparation.
- Adjust cluster during milking to prevent liner slips.
- Shut off vacuum to the claw before removing cluster; keep machine stripping to a minimum.
- Apply teat disinfectant immediately following teat cup removal.
- Pre- and post-milking teat disinfectants should be selected based on documented efficacy data and the prevalent mastitis pathogens found in the herd.
- Assure complete coverage of the teats with the disinfectant. To optimize mastitis control and reduce costs, teat dipping is the preferred method to apply teat disinfectants.
- Milk known problem cows last.
- Other:

### 4. Proper Maintenance and Use of Milking Equipment

- Service, maintain, and regularly evaluate equipment function according to manufacturer's guidelines, using dynamic evaluation methods.
- Ensure milking system is adequately sized to handle milk and air flow.
- Replace inflations and other rubber and plastic parts regularly, according to manufacturer's guidelines. Replace broken or cracked inflations and short milk tubes immediately.
- Thoroughly wash and sanitize equipment after each milking.
- Sanitize equipment prior to each milking.
- Other:

### 5. Good Record Keeping

- Keep records, such as individual cow SCC reports, to indicate the prevalence and incidence of subclinical mastitis.
- For each case of clinical mastitis, record cow identification, date detected, days in milk, quarter(s) infected, number and type of treatments.
- Other:

## 6. Appropriate Management of Clinical Mastitis During Lactation

- Carefully consider the economic ramifications of therapy decisions.
- Aseptically collect a pre-treatment milk sample for microbiological culture.
- Use an appropriate therapeutic regimen; use drugs according to the label, or as recommended by the attending veterinarian.
- Prior to infusion, disinfect the teat with a germicide and scrub the teat-end with an alcohol swab.
- When infusing, use a single-dose, regulatory approved product by the partial insertion method.
- Do not treat chronic non-responsive infections or infections caused by resistant pathogens.
- Observe the correct withdrawal period for the product used, as stated on the label. If extra-label drug use is necessary, follow regulatory guidelines under the supervision of a veterinarian (e.g. in the systemic treatment of coliform mastitis).
- Always follow recommended drug storage guidelines and observe expiration dates.
- Clearly identify all treated cows. Record all treatments in a permanent record.
- Provide adequate lactating cow nutrition to enhance immune system function.
- Other:

## 7. Effective Dry Cow Management

- Dry cows off abruptly and dry treat each quarter immediately following the last milking.
- In order to ensure reduced milk production, decrease the energy density of the ration prior to dry-off. Under careful supervision, limiting water intake for 12 - 24 hours may be useful.
- Disinfect teats and scrub the teat-end with an alcohol swab before infusing.
- Use the partial insertion method of dry treatment infusion, limiting contamination of other clean teat ends.
- Treat all quarters of all cows with a commercially available approved long-acting dry-cow antibiotic.
- Disinfect teats immediately following infusion.
- In situations of high environmental pathogen exposure, use of a teat sealant for dry cows may be indicated.
- Provide adequate dry cow nutrition to enhance immune system function.
- Ensure that dry cow environmental management is appropriate to reduce exposure to pathogens.
- In herds with coliform mastitis problems, vaccinate with a core antigen endotoxin vaccine.
- Clip flanks and udders to remove excess body hair. Udder singeing may be used to maintain hair removal.
- Other:

## 8. Maintenance of Biosecurity for Contagious Pathogens and Marketing of Chronically Infected Cows

- When available, request to see bulk tank and individual cow SCC data or use California Mastitis Test (CMT) prior to purchasing new cows.
- If possible, obtain aseptically-collected milk cultures from suspect cows prior to purchase.
- Isolate recently purchased cows and milk separately until there is assurance of the absence of intramammary infection.
- Segregate cows with a persistently high SCC or linear score (e.g. SCC greater than 300,000 or linear score greater than or equal to 5.0 for several months) and observe response to dry treatment or other recommended therapy.
- Market or permanently segregate cows persistently infected with *Staphylococcus aureus* or other non-responsive microbial agents (*Mycoplasma*, *Nocardia*, *Pseudomonas*, or *Arcanobacterium pyogenes*).
- Other:

## 9. Regular Monitoring of Udder Health Status

- Enroll in an individual cow SCC program or monitor electrical conductivity of milk.
- Monitor rates and distributions of high SCC cows.
- Culture clinical cases and high SCC cows.
- Use CMT as a cow-side monitor of inflammation.
- Monitor udder health for the herd using reports from the regional regulatory agency or milk marketing organization and DHI.
- Calculate clinical mastitis rates and distributions on a regular basis.
- Use SCC and clinical mastitis records to evaluate protocols and to make treatment and marketing decisions.
- Other:

## 10. Periodic Review of Mastitis Control Program

- Obtain objective evaluations from veterinarian, industry field person or extension representative.
- Use a step by step approach to the review.
- A standard evaluation form is useful.
- Other: