

## Three-Point Strategy for Udder Health

By Chris Mondak, ISUE Dairy Field Specialist

Last year, in late winter and early spring, many producers reported an increase in herd SCC and increase in mastitis cases. A rising somatic cell count is often due to a combination of several factors. As we are coming in to a new winter season which may again pose additional challenges to udder health, let's review the basic good management practices that can control the factors that lead to increasing SCC and mastitis.

**Reduce the stress load on the cow.** Cows under stress may have a weakened immune system which can result in increasing SCC and mastitis. There are no magic bullet solutions here – just good management practices. Each one of the following items is important enough to warrant an article of its own. They are provided here simply as a **Checklist** to help you review key elements of your operation:

- \_\_\_\_\_ A sound nutrition program is in place.
  - \_\_\_\_\_ ration is balanced and provides adequate protein, energy, and effective fiber?
  - \_\_\_\_\_ good transition cow ration & management?
  - \_\_\_\_\_ overcrowding avoided at the bunk, especially for dry cows and fresh cows?
  - \_\_\_\_\_ no molds in the feed?
  - \_\_\_\_\_ herd is monitored for signs of sub-clinical rumen acidosis? (low-level, but chronic rumen acidosis is a stress that causes poor immune function. This can be expressed as increased bacterial infections, i.e. mastitis, with poor response to treatment. Indicator signs of rumen acidosis in the herd include fluctuating dry matter intakes, light-colored loose manure, diarrhea, occasional nosebleeds, lameness due to sole ulcers and abscesses, and milk fat and milk production depression in second lactation+ cows relative to first lactation heifers.)
- \_\_\_\_\_ Housing provides clean, dry stalls.
  - \_\_\_\_\_ overcrowding is avoided?
  - \_\_\_\_\_ ventilation is adequate?
- \_\_\_\_\_ Challenge from contagious mastitis organisms is absent or controlled.
  - \_\_\_\_\_ bulk tank is monitored periodically for presence of staph aureus, strep ag, and mycoplasma?
  - \_\_\_\_\_ strep ag cows are treated, staph aureus segregated or culled, mycoplasma culled?

**Bolster natural immunity.** Research done at Ohio State showed that cows fed supplemental Vitamin E in their rations had lower SCC and fewer cases of clinical mastitis. Cows fed 4000 IU did the best, but the level of 1000IU in animals one month before and one month after calving seems to be the most cost-effective. Discuss this with your nutritionist and veterinarian.

The core antigen vaccines such as J-5 and Jvacc are cost-effective measures of bolstering the cow's ability to battle the challenge of environmental mastitis pathogens. Since animals in early lactation are at high risk for environmental mastitis, these vaccines are usually given in the dry period, and boosted in early lactation. Discuss the various core antigen vaccines options with your veterinarian to identify the vaccine most suitable to your herd.

**Reduce the stress to the teat end.** Keeping teats soft and healthy is important year-round, but is especially important in winter. Dr. Leo Timms at Iowa State University conducted research to identify the causes of

the teat end cracks, callouses, and scars seen in winter. These lesions can lead to higher SCC and mastitis because the damaged teat ends are more difficult to clean properly at milking time, resulting in increased entry of mastitis bacteria during milking. Measures to prevent and control teat end lesions include the following:

- using proven teat dips that contain 5% - 10% skin conditioner and effective germicide.
- ensuring that vacuum levels are neither too high or too low.
- utilizing proper milking techniques that involve proper teat cleaning and stimulation, followed by unit attachment in 1 to 1.5 minutes after udder prep.
- using milking procedures similar to controlling contagious mastitis(i.e. clean hands, individual towels.
- blotting teat ends dry after 1 minute of post-dip application in extremely cold weather.
- avoiding overmilking because prolonged machine on-time increases teat end stress.
- providing windbreaks and feeding indoors for cows not kept in confinement barns.

Research to develop solutions and therapy for teat end lesions is currently in progress.

For more information on udder health or overall herd health concerns, contact Chris Mondak, DVM at the Sioux County Extension Office, 712-737-4230

#### **UPCOMING DAIRY EVENTS:**

**Western Iowa Dairy Expo Jan. 17-18, in Sioux City**

Sponsored by NIPCO

**Milking Systems and Parlors Conference Jan. 30, 31, Feb. 1, in Camp Hill, PA**

Contact Chris Mondak in Sioux County Extension Office 712-737-4230 for details

And brochure

**ISUE Dairy Days March 7 in Rock Valley; March 8 in Orange City**