

## **Summer Heat Stress and Mastitis**

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The summer season has been upon us for a few months now. It brings us warm weather and the chance to enjoy outdoor activities. This has been a strange summer with Covid-19 becoming a part of everyone's lexicon along with social distancing and mask wearing!

This summer has been warmer than normal and along with outdoor fun, it has brought increased stress on our dairy cows due to the heat. Many dairy producers have really seen how effective their heat abatement tools are this season. We definitely see decreased dry matter intakes and reduced milk production if fans and sprinklers are not at an optimum level.

Even when fans and sprinklers are at an effective level, we often see increased levels of mastitis during the summer season. Many times these mastitis cases are caused by gram negative bacteria such as E. coli and Klebsiella. These bacteria may cause a more severe toxic mastitis leading to reduced milk production, culling, and sometimes death.

Treatment for these toxic mastitis cases can be more expensive and often have fairly disappointing outcomes. There are a number of preventive things that can be performed to ease these cases. First would be vaccinations. Most dairy producers already vaccinate with core antigen vaccines such as J5, JVac, or Endovac. These vaccines should be given three times per lactation and your veterinarian can discuss these protocols with you. There also is a Klebvax vaccine that has been out for a few years that aids in the reduction of Klebsiella mastitis problems. Your veterinarian can advise you on the use of this vaccine also.

We also have seen a reduction in toxic mastitis cases with aggressive stall management. Clean and dry stalls will improve the number of cases. A few dairy producers with tunnel ventilated barns have noticed that their sand bedding dries out after they fill the stalls due to the high wind speeds in their barns, and have associated a reduction in mastitis cases which they feel is due to this. We also will see dairy producers who use a plow device to clean out the back 12-18 inches of sand bedded stalls and then fill this area with new clean dry sand. They often see a reduction in clinical cases after doing this. We would recommend that this be performed 2-4 times a year depending on crowding and the level of manure contamination, etc.

Toxic mastitis can be extremely frustrating for producers, but keeping cows cool, clean, and well bedded with dry materials can go a long way toward reducing these issues. After this hot summer, it would be a good time to evaluate your stall maintenance and cow cooling protocols to see if there are adjustments to be made that would improve your production and milk quality.