

KVC Bovine Producer Newsletter

May 2011

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Heat Stress

It's not too early to plan ahead

It may be hard to imagine heat stress when the weather has been so cool lately, but now is a great time to plan for the heat stress that will inevitably occur this summer! It has been well documented that heat stress reduces milk production and reproductive performance in dairy cattle. This occurs in part by a reduction in feed intake, an increase in body temperature, a decrease in lying time and changes in metabolic rates and hormone production. The “real” or effective temperature a cow experiences is a function of not only what the thermometer says, but also accounts for relative humidity, air movement and solar radiation. In terms of reproductive performance, it has been suggested that early embryonic death can occur with as little as a 0.5 to 0.75 degree increase in core body temperature.

A variety of methods to reduce heat stress include providing shade, fans, and evaporative cooling methods. While sprinklers and soakers can be very helpful for cooling cows, it is important to remember that there needs to be adequate air movement (eg. fans!) so the water can evaporate rapidly. Other technologies such as evaporative cooling pads are on the market as well.

Where should we focus on?

The first place to look at for freestall barns would be the holding area. After that, the resting area is second, and the feed area third. Addressing the holding area first is important. The density of cows in this area, even for a short time, can cause a large increase in heat load. Aim to have cows in and out of holding area in less than 1 hour per milking for 2x herds, and less than 45 minutes for 3x herds.

Air movement should ideally be 1000 cubic feet per minute per cow. This is approximately one 30-36 inch fan per 10 cows or 150 square feet. Direction is important too – for holding pens less than 24 feet across, it is recommended fans are placed on sidewalls. For larger pens, fans should be perpendicular to cows.



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CQM Corner

Standard Operating Procedures (SOPs)

SOPs are mandatory for CQM validation (Record 1-7) and are one of the easiest requirements of the program that anyone and everyone should complete now – regardless of your validation date.



Standard Operating Procedures are on-farm procedures that should be followed based on best management practices for a variety of routine tasks. These SOPs ensure that no matter who is doing the job, it is done the same way, so that food safety and quality are not compromised.

If you have already done your SOPs, they will be uploaded in the DFO system and accessible through the DFO website (www.milk.org). Take some time to review these and ensure they are up to date. Editing an existing SOP template is quite simple with the new program, and once completed, print off a copy to keep in the barn, and another copy to keep with all of your CQM records. It is recommended to review your SOPs on an annual basis, or based on changes in your protocols.

If you have not already done your SOPs, go to the DFO website and complete them using the SOP wizard provided. This should take approximately 1-2 hours. The wizard allows you to choose from a list of operating procedures and to add your farm's unique variations to make this process simple. If you do not have access to the internet, talk with your herd health veterinarian as we have paper copies of the wizard available and are able to enter this information online for you.

Hints:

- Do your SOPs remind you to check your TTR for any regulatory alarms after milking?
- Do your SOPs remind you to change filters twice per milking?
- Are you feeding medicated feeds to any animals on the farm (i.e. Rumensin, Decox, Bovatec, etc.)
 - If so, have you filled out an SOP for Feeding Medicated Feeds and labelled all medicated feed storage areas?
- Do your SOPs clearly state how to identify and treat animals with medication – and that identification should occur before treatment?
- Do your SOPs state where to go to find out if an animal is OK to be shipped for slaughter?

If you have any questions about your SOPs, be sure to consult your herd health veterinarian, or use your CQM Workbook and Reference Manual, along with your Grade A farm requirement booklet to ensure your protocols reflect those recommended for safe, high quality food production.