

What Do Cows Want When Its Hot
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Each summer, millions of pounds of milk are lost because of the very thing we enjoy about summer, the warm weather. To be more specific, dairy cattle and milk production are seriously impacted by situations of heat stress. While we did have a relatively cool spring the sun is still in the sky and the worst of summer's heat and humidity are ahead of us. Providing relief from heat stress is an important management consideration during the next couple of months. So how should dairy producers thinking about cooling cattle in Michigan attack the problem?

First of all cows want what we want. To have a nice cool drink and relax in the shade with a breeze. The first step to reducing the potential for heat stress related production loss is to provide extra clean water. Cattle will increase water intake during warm weather to compensate for extra water lost by removing heat from their bodies. This may mean putting out new sources of water, such as in the holding pen or on the return alley. Keeping the water clean and fresh makes it more palatable for the cattle. In fact, research indicates that cattle will drink more water at any time of the year if it is kept clean. A good rule of thumb is the "Would I" rule. As in, would I drink from this water source? If you wouldn't drink from it why would your cows want to? Fresh, feed particularly in the cooler parts of the day, is also an excellent idea.

Another important way to improve conditions during hot weather is to provide cattle with a way to get out of the sun. Removing the actual radiant heat source of the sun can lower temperatures significantly. This might mean providing shade at an outdoor feed bunk or while in the cow yard. Actually, this is one of the reasons the move to freestall housing has worked so well. The animals are in a situation out of the sun in the summer, where ventilation can be controlled.

This brings up the next resource for manipulating the cow's environment. Moving air within a barn has long been recognized as a good way to improve the environment in the barn. In winter, the object is to remove excess moisture from the barn, in summer it is to remove excess heat and moisture produced by the cows while they are in the barn. Our object is to try and keep the inside and outside temperature within 10 degrees of each other. The naturally ventilated freestall barns here in Michigan are theoretically designed to do this without any extra help. But for a variety of reasons, extra air movement is often desirable. Usually, this can be provided by fans directing air across the bodies of the cows in the freestalls, though some producers are adding fans over the cow's backs at the feed bunk as well. The rule of thumb here says that most fans will basically only be good for a distance in feet equal to it's diameter in inches. Or, a 36" fan will provide air movement over a distance of about 36'.

The last thing we will look at here is the use of water as a cooling agent for dairy cattle. Because of the high humidities we have here in Michigan during the summer sprinkling

the cows to provide evaporative cooling can be problematic. The cow should be in a position to be dried within 20 minutes or so after the wet-down. This means that the barn needs to have very good fan driven ventilation to do this successfully. If the cows are not dried fairly quickly, the potential for an environmental type mastitis problem increases. This of course, is not a desirable thing either.

Keeping these few things in mind as the heat of summer progresses is a relatively simple way to minimize production losses this year. Essentially, cows want what we want, to be cool and comfortable instead of hot and uncomfortable. It's our job to try and see to that they get their wish.