

# Heat Stress and Dairy Cattle

*Modified article from eXtension.org*

As the summer continues, it is important to monitor cows for heat stress. There are steps you can take to alleviate heat stress, keep cows more comfortable, and more productive. Recognizing signs of heat stress, providing enough cool water and shade, and changing the diet are very important.

## **Recognize signs of heat stress.**

Moderate heat stress (Environmental temperature= 80-90 F with humidity between 50 and 90%)

- Rapid, shallow breathing
- Profuse sweating
- Approximate 10% decrease in milk production and feed intake

Severe heat stress (Environmental temperature=90-100 F with humidity between 50 and 90%)

- Severe depression in milk (usually more than 25%)
- Severe decrease in feed intake
- Open-mouth breathing with panting and tongue hanging out

**Provide enough cool water and shade.** A cow's requirement for water will increase as temperatures rise. Be sure to provide adequate water for cows, especially during hot days. Because cows prefer cooler water, place waterers beneath shaded areas when possible. You could also use a cooling system for waterers if the return from these expenses makes economical sense. Mistlers and fans are also helpful in keeping cows cool but be sure to keep the water from reaching feed to avoid feed issues.

**Change the diet.** Cows will eat less during hot, summer days because dry matter intake decreases. Providing an energy-dense ration will concentrate the energy and other nutrients, allowing you maintain the same level of nutrition even if cows aren't eating as much. Other nutritional changes include reformulating mineral content and feeding less highly degradable protein to allow cows to tolerate the heat better. Overfeeding protein makes the cow's body work harder to break down protein. That work would be better spent keeping her cool and comfortable. Talk with your nutritionist to see how you can use some of these recommendations in your herd.

Be safe this summer. People are also susceptible to the heat, so it will be important to stay hydrated to avoid heat stroke from occurring. Keep hydrated and your cows cool, and have a safe and enjoyable summer.

## **Reference**

Heat Stress in Dairy Cattle. eXtension. Accessed 20 July 2015. [www.extension.org](http://www.extension.org). Published 26 January 2011.