

## Cool Your (Cow's) Heels!

**Protect your cows from potential heat stress with an online monitoring service and these tips.**

By Stephanie Staton

© USDA/Keith Weller

In this article ...

**Monitor Heat Online**

**Cool Before the Heat Arrives**

**When the Heat Hits** With spring in full swing, summer and warmer temperatures are just around the corner. As the heat index rises, you might be surprised to learn that people aren't the only ones affected by the intense temperatures of a smoldering summer's day: Your cows could be feeling the burn, too!

Certain factors increase your cows' susceptibility to heat stress: genetics and color, health, production status and previous exposure. These factors in conjunction with extreme weather conditions can throw off a cow's heat balance, which maintains the body's temperature, creating a risk to the health and well-being of the animal.

**Monitor Heat Online**

The U.S. Department of Agriculture's (USDA) chief scientific research agency, the Agricultural Research Service (ARS), has developed an online model for monitoring this potentially hazardous weather. The model uses seven-day forecasts from the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service. The forecasts include four weather parameters: temperature, humidity, wind speed and cloud cover. This data is combined with an estimate of cattle heat-stress response to predict an animal's stress level. All of this information is then translated into a color-coded map that forecasts general stress-level trends for the duration of the forecast as well as anticipated peak heat-stress categories for each day. The variability from one cow to another impedes the model's ability to calculate individual stress levels, but does allow for a general prognosis. The model is updated twice daily and estimates the risk of heat stress for Iowa, Kansas, Missouri, Nebraska, Oklahoma, northern Texas, South Dakota and western Colorado. It can be viewed at [www.ars.usda.gov/Main/docs.htm?docid=16750](http://www.ars.usda.gov/Main/docs.htm?docid=16750)

**Cool Before the Heat Arrives**

The ARS advises farmers and ranchers to take measures to minimize heat stress in advance: Monitor the weather Prepare a summer feeding program using a low-heat increment diet to feed cattle during heat waves Ensure there are no restrictions to air movement such as hay storage locations or wind breaks Check stock tanks to ensure adequate water Consider the use of additional water tanks Consider added shade over sick pens and other vulnerable animals Remove manure build up from around water tanks, feed bunks and under shade

**When the Heat Hits**

The service also offers advice on actions that will help minimize the effects of heat during an event:

Do not move animals Observe animals for signs of heat stress Consider wetting the animals or the ground When wetting the animals use large droplets (150 micron diameter sprinklers), not a fine mist. Wet the animals to the hide; the water should run off the animals. Wetting is efficient where there is wind and low relative humidity

For more tips on preparing for and weathering through a high heat-stress event, check out the ARS' website, [www.ars.usda.gov/Main/docs.htm?docid=15627](http://www.ars.usda.gov/Main/docs.htm?docid=15627)

Top