

What you need to know about Cattle Comfort



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Introduction

Oklahoma's extreme weather can have a dramatic impact on livestock. Extreme conditions can alter feed intake, reduce daily weight gain and increase feed requirements.

The cattle comfort maps, provided in the Mesonet Agriculture section, are designed to help producers identify current and future periods of stress. The maps indicate two levels of heat stress, two levels of cold stress and a period of no stress. The comfort maps are designed for outdoor cattle.

Cattle Comfort Products

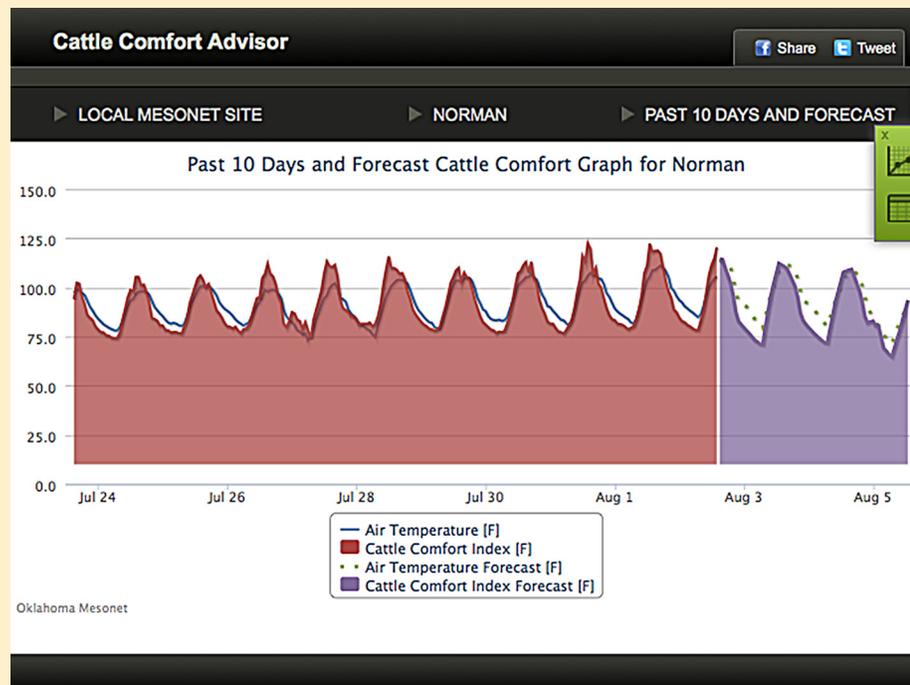
The Cattle Comfort Advisor includes a variety of display products to provide information for ranchers and cattle industry professionals, including: Current and yesterday maps, Forecast high and low maps, Combined 10-day and 3-day forecast graphs, 45-day graph and table, and High and low current and last year graph.

"Statewide Maps" choices include current, past and forecast Oklahoma maps. Local Mesonet Site" graphs provide a time series for a single Mesonet location. Graphs and tables show cattle comfort for the "Past 10 Days and Forecast" or "Past 45 Days."

The "Past 45 Days" cattle comfort graph shows data in 2-hour intervals. Selecting "Past 10 Days and Forecast" loads a graph of cattle comfort and air temperatures. To zoom the graph into a short period, move the mouse to the start time you want, left click and drag to the desired end time, then release the left mouse button. Click "Reset zoom" on the right side of the graph to reset the zoom view. To switch to a table of cattle comfort index values, move your mouse to the right side of the graph and when the green box appears, click the table icon.

Finding the Cattle Comfort Advisor

The Oklahoma Mesonet Cattle Comfort Advisor is located on the Mesonet website, www.mesonet.org, under the Agriculture tab at the top. From the main Agriculture page, select "Cattle Comfort Advisor" from the left menu under Agriculture Essentials.



Display products are grouped into Statewide Maps, Local Mesonet Site, or Past Years. Local Mesonet Site and Past Years display products include both graphs and tables.



Combatting Cold

Beef cattle can be comfortable from 15°F to 85°F, depending on hair coat length and color, animal age and nutritional status.

Research indicates that wind, wet hair and muddy pastures or pens can make cattle more sensitive to cold. Anything done to reduce these negative factors will dramatically reduce cold stress. In general, a cow's energy requirement increases as the weather gets colder.

The common-sense approach is to make a small increase in energy fed during wet, cold weather, and to extend the feed energy increase into more pleasant weather in order to help the cow regain lost energy. A second approach is to reserve the highest quality hay for feeding during stressful weather.

Battling Heat

Provide ample water:

The most important management concern in heat stress situations is to provide ample water. Cattle will drink more water when the water is cleaner and cooler. Provide enough tanks for cattle to be able to get the water they need. If possible, water should be cooled. Tanks should be cleaned weekly to encourage water consumption. Making water available under shade will increase water consumption.

On days when the cattle comfort index reaches 85°F or higher, cattle commonly need 2 gallons of water per 100 pounds of body weight.

Improve airflow:

Consider ways to improve airflow where cattle are located. Buildings, solid fences and vegetation reduce airflow.

Avoid handling cattle:

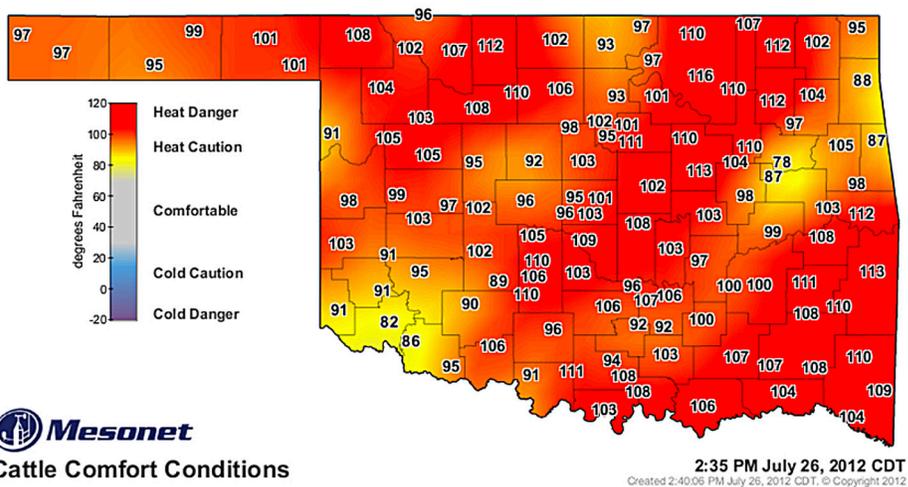
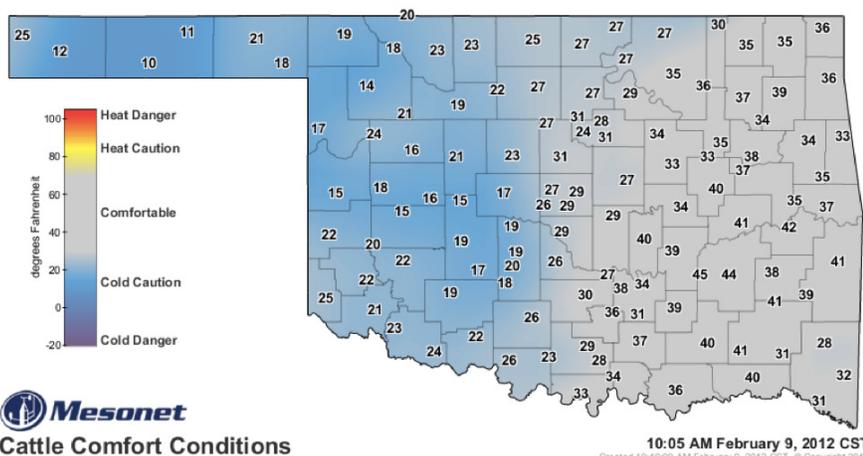
When cattle are experiencing moderate heat stress, work the animals before 8 a.m. and avoid keeping them in holding pens for more than 30 minutes. Cattle should not be worked after 10 a.m. on days when the index will be above 85°F.

Change feeding patterns:

Try to feed 70 percent of the animal's daily feed two to four hours after the peak Cattle Comfort Index Value.

Control biting flies:

Stable flies cause cattle to bunch and disrupts cooling. Eliminate shallow pools where flies can breed.



Our Story

The Oklahoma Mesonet is a world-class network of environmental monitoring stations. The network was designed and implemented by scientists at the University of Oklahoma (OU) and at Oklahoma State University (OSU).

The Oklahoma Mesonet consists of 120 automated stations covering Oklahoma. There is at least one Mesonet station in each of Oklahoma's 77 counties.

At each site, the environment is measured by a set of instruments located on or near a 10-meter-tall tower. The measurements are packaged into "observations" every 5 minutes, then the observations are transmitted to a central facility every 5 minutes, 24 hours per day year-round.

For help with this or other Mesonet products, please call 405-325-3231, or email us at operator@mesonet.org.



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