

Summer Could Be Hard on Beef Cattle

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Arkansas has been experiencing a hot summer with below normal rainfall. High temperatures raise the concern of heat stress on beef cattle. Heat stress is hard on cattle, especially in combination with high humidity. Hot weather and high humidity can reduce breeding efficiency, milk production, feed intake, and weight gains; they can sometimes cause death.

Hot weather stress is particularly hazardous to closely confined cattle such as show cattle. High relative humidity when the temperature is at or above 80° F adds to the likelihood of profit-stealing losses. Temperatures above 100° F are always dangerous, and if the humidity is above 25 percent, the situation is an emergency. When conditions are at the emergency level, all handling of cattle should be kept at a minimum. Provide shade, if possible, and plenty of fresh water.

Below is a Livestock Weather Hazard Chart. To use the chart, locate the temperature in the column at the left. Follow the line to the right until you come to the relative humidity. The number tells you what weather stress category you are in and how safe your cattle may be. If the numbers range between 75 and 78, you are at an "Alert" level. "Danger" level is between numbers 79 and 83, whereas "Emergency" level is greater than 84.

Livestock Weather Hazard Chart

Dry Bulb Temp.	Relative Humidity (%)												
	30	35	40	45	50	55	60	65	70	75	80	85	90
80	72	72	73	73	74	74	75	75	76	77	78	78	79
85	75	75	76	77	78	78	79	80	81	81	82	83	84
90	78	79	79	80	81	82	83	84	85	86	87	87	88
95	81	82	83	84	85	86	87	88	89	90			
100	84	85	86	87	88	90	91						
105	87	89	90	91									

When beef cattle are grazing pastures, producers have few options to reduce the effects of heat stress. Trees, buildings, or sunshades can provide shade. Providing an adequate source of cool, clean drinking water is essential to help keep the beef cow's internal body temperature within normal limits. Considering the lack of rainfall that many areas in Arkansas have seen in the last two or three years, adequate drinking water for cattle has become a major problem. Aboveground water lines should be provided with shade. This will reduce the temperature of the water. If the temperature in a water trough increases from 70° to 95° F, the total water requirements can increase 2.5 times.

Producers using intensive grazing management might consider rotating through fields at a more rapid rate. Taller grass tends to be a cooler surface to maintain cattle on than pasture with shorter grass stands. Another option is to rotate cattle in the evening rather than the morning. Cattle would probably consume forage from the new pasture in the evening and hopefully reduce body heat. A third option is to use paddocks that have shade or that allow access to barns.

Increased water consumption will also increase excretion of urine. This will lead to the loss of certain minerals, such as sodium (salt), potassium, and magnesium. Free-choice mineral salt should be provided to cattle year-round. For additional information about heat stress in cattle, contact your local county Extension agent.

University of Arkansas, United States Department of Agriculture and County Governments Cooperating.

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