

# Monitor Cattle During Periods Of High Humidity And Temperatures



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**V**ersus last year, this spring has actually been rather pleasant; well I am only referring to the temperatures and not the rain that has prevent farmers from planting corn or harvesting hay. However, everyone knows that it is just a matter of time before the hot and humid temperatures of summer returns to the Midwest. It is important to address and prepare for the hot weather to minimize its impact on your cattle's performance.

Cattle prefer cooler temperatures with little to no humidity. Dangerous situations can develop when temperatures approach 85 F with high humidity. While searing temperatures are hard on livestock, the combination of high temperatures and humidity, as usually experienced in the Midwest, can create an especially dangerous situation. High temperatures and humidity can negatively impact breeding efficiency, milk production, feed intake, weight gains, and sometimes cause death. It is important for producers to know what factors can contribute to heat stress.

Numerous factors contribute cattle's susceptibility to heat stress. Basically, these factors can be categorized as environmental or animal-related. Environmental factors include ambient temperature, solar radiation, humidity, wind speed, soil moisture, and overnight temperatures.

Animal-related factors include origin of the cattle, acclimation to the environment, age, health, hair coat, nutrition, and genetics. Genetics influences hair color and temperament.

All these factors should be taken into consideration when determining whether your cattle are susceptible to heat stress. While you cannot control the weather, the Heat Stress Forecast Maps can provide a general guideline for expected cattle heat stress. This website [www.ars.usda.gov/](http://www.ars.usda.gov/) was developed through a partnership between USDA's Agricultural Research Service and the National Oceanic and Atmospheric Administration. The maps account for predicted ambient temperature, humidity, wind speed, and cloud cover.

In addition to knowing those factors that can

contribute to heat stress in cattle, it is important to observe your livestock frequently and take necessary precautions.

Producers should take precautions when hot and humid weather is forecasted. Ensure that cattle have access to shade; trees, buildings or sunshades. In addition cattle must have access to a sufficient quantity of cool, clean drinking water. The cool water will help maintain internal temperatures closer to normal. However, increased water consumption will increase urine excretion. This results in an increased loss of certain minerals, such as sodium (a part of salt), potassium, and magnesium. Provide free choice trace mineral salt in a location where animals will consume it. Loose salt will be more readily consumed than block salt.

Other options include feeding more frequently so as to keep the feed fresher (especially silage) and to feed a greater part the diet in the evening rather than in the morning. Also high quality forage produces less heat of fermentation than low quality forage. Avoid feeding excess protein during periods of heat stress. The excess nitrogen supplied by the protein must be detoxified and prepared for excretion (via urine) which is a biochemical pathway that demands large amounts of energy.

Remember if you must move cattle on a hot day, take them slowly. If there are calves and you are rotating to a new pasture, cows will often travel at a speed faster than their calves. If the pasture is very far away, the calves may become overheated trying to stay with the cows. If the herd is not slowed down or made to stop, the calves may become overheated to the point of dying.

There are several signs of heat stress in cattle and it is important to recognize these as soon as possible. Signs of heat stress include bunching (in the shade if it's available), slobbering, high respiratory rates (panting), open mouth breathing, lack of coordination, and trembling. If you see these signs, assume the cattle have high heat loads, and minimize the stress immediately, but handle the animals gently to avoid increasing their stress even more.

Be prepared for heat stress. As hot weather approaches, monitor your cows frequently and the Heat Stress Forecast to determine the potential for heat stress in your cattle.  $\Delta$

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