

## Cattle Management and Care During Hot Weather

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It has been hot! In some places in Tennessee this summer, records have been set for “hot weather.” According to the Weather Service in Morristown, there has been 59 days of temperatures being above 90 degrees during the months of June, July and August. That amounts to 78% of the days during this Summer. In addition, at night, 51 nights during the same period were above 70 degrees. It has been hot.

With the humidity also being on the “elevated side,” this has created a “heat stress” several times above 100 degrees. The high temperature during the days and the nights above 70, this is tough on cattle. They have no opportunity to “cool down,” to graze and drink water. As a consequence, their performance drops.

The higher than normal temperatures could continue into the fall. Some “long-range” forecasts indicate that the temperature will be “hotter” than “normal” this fall. The weather reporting staff at Morristown said that the temperature will be above “normal” during the remaining days in August and extend into September and October. The latest weather “outlook” from CattleFax also shows a similar situation.

Older cattle and those that have an illness are more susceptible to heat stress than “healthy” cattle. Those with respiratory disease or other problems that have affected their lungs will have a difficult time. In reality, cattle with any type of health challenge will have a “tough time.”

Following are some practices and suggestions that should aid in alleviating the effects of heat on cattle.

**Know that cattle do not have heat tolerance similar to humans.** Cattle cannot “handle” hot weather as well as humans. They become uncomfortable at about 85 degrees. Cattle

cannot sweat similar to humans. They sweat only about 10% what humans do and this is done through their tongues and nostrils. As cattle become "hotter," increased nasal and oral discharge and "panting" will be noticed. Keep this in mind when preparing to work cattle.

**Provide a source of cool, clean water.** Cool water is needed to cool the cattle's internal organs. Internal temperature will have an impact on feed and especially, forage intake. Water from ponds will be elevated in temperature and therefore will be reduced in consumption as well not be as cooling. Digestion of forage will also generate elevated heat and consuming fescue will elevate it more. During hot weather, water consumption will increase. At 90 degrees, water consumption may be almost twice that at 70 degrees and 50 percent greater than at 80 degrees. (Epperson and Holt, 2006). Adequate, cool, water intake, along with shade, is probably the best way to reduce heat stress in cattle.

**Provide adequate shade.** Shade with air flow will increase the cattle's comfort. Open-sided sheds or trees can reduce the radiant heat by as much as 40 percent (Hupp and Rathwell, 1998).

**Work cattle at times other than during the "heat of the day."** Working cattle during periods of elevated temperature will increase the stress caused by the heat. Work cattle before 9:00 am. During the late afternoon, generally the temperature is usually at its highest of the day. In addition, the cattle's digestive system is filled with forage and their internal temperature will be higher than in the morning.

**Haul cattle early in the morning.** Haul cattle before it gets too hot and the cattle's temperature increases. This is the time of the day when the sun has not had time to heat things up. Environmental temperature is likely to be the lowest during a 24 hour period early in the morning. Consider hauling fewer animals per load. Plan hauling to be able to quickly unload the cattle. If cattle have to stay in line on the trailer prior to unloading, they can become extremely hot from both their body heat and the environment plus the trailers have limited ventilation that prevents air flow.

**Know the signs of heat stress.** Cattle that are panting, slobbering from their mouth and nostrils, have lack of coordination and trembling are stressed. A sign of extreme stress is cattle holding up their heads in an effort to breath. At this condition, their breathing rate may be 100 per minute or greater. Prior to these conditions, cattle will begin to move about attempting to locate cooler conditions in the area.

**Check the cattle during the day.** It is always “good husbandry” to frequently observe cattle. Make adjustments in management as needed to reduce the effects of heat. See preceding for signs of heat stress.

**Control flies.** Control face and horn flies in that they cause irritation and aggravation for the cattle. As a result the cattle will tend to “bunch” which disrupts their cooling. (Smith, David, University of Nebraska).

Cattle that have dark-colored hair coats will also be more susceptible to the heat than lighter color ones. Dark colored animals can become overheated by the sun due to the fact that black absorbs more of the sun’s heat. On the other hand, light colored animals may experience “sun burn.”

Heat stress in cattle can create welfare problems for cattle and economic losses. Tennessee cattle producers should be aware of the conditions that create heat stress. Plan ahead and carry out those husbandry practices to reduce the effects of the heat and humidity and keep cattle as comfortable as possible.

## **References Cited**

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