



Visible signs of cattle heat stress (from West 2003):

- Decreased food intake
- Decreased activity
- Seeking shade
- Panting (increased respiratory rate)
- Sweating



Image source: [USDA ARS](http://www.usda.gov)

Subscribe Today!

Sign up for the SERCH LIGHTS alert to receive emails when heat stress conditions are forecast for your area: www.serch.us/lights/cattle-heat-stress

Alerts come in the morning to give producers time to plan, adapt, and respond



Image source: [USDA ARS](http://www.usda.gov)

Adaptive management options for reducing heat stress impacts:

- Provide lots of available drinking water, shade, airflow, and remove fly habitats (Kerr 2015)
- Alternating feeding times and sprinkling can help minimize the effects of heat stress (Mader 2003)
- Applying 1/3 gallon of water to a cow's back every five minutes with fans providing air flow was very effective in decreasing heat stress (Smith et al. 2012)
- Follow weather trends and begin preventative measures before heat waves hit
- Try the [ThermalAid](#) app for detecting heat stress
- Consult the free courses available through [Animal Agriculture in a Changing Climate](#)

Contact the USDA Southeast Regional Climate Hub for more info:

Steve McNulty, smcnulty@fs.fed.us | Emrys Treasure, etresure@fs.fed.us
<http://www.climatehubs.ocs.usda.gov/southeast>

References

- Amundson, J. L., Mader, T. L., Rasby, R. J., & Hu, Q. S. 2005, September. Temperature and temperature-humidity index effects on pregnancy rate in beef cattle. In Proc. 17th International Congress on Biometeorology, Deutscher Wetterdienst, Offenbach, Germany.
- Bouraoui, R., Lahmar, M., Majdoub, A., Djemali, M. N., & Belyea, R. 2002. The relationship of temperature-humidity index with milk production of dairy cows in a Mediterranean climate. *Animal Research*, 51(6), 479-491.
- Kadzere, C.T., Murphy, M. R., Silanikove, N., & Maltz, E. 2002. Heat stress in lactating dairy cows: a review. *Livestock production science*, 77(1), 59-91.
- Kerr, Susan. *Livestock Heat Stress: Recognition, Response, and Prevention*. Pullman: Washington State U, 2015.
- Mader, T.L. 2003. Environmental stress in confined beef cattle. *Journal of animal science*, 81(14_suppl_2), E110-E119.
- Smith, J., R. Collier, J. Harner III, & B. Bradford. 2012. Strategies to Reduce Heat Stress in Dairy Cattle. In Proceedings of the 27th Annual Southwest Nutrition & Management Conference, Feb. 23-24, Tempe, AZ. <http://animal.cals.arizona.edu/swnmc/Proceedings/2012.pdf>
- St-Pierre, N.R., Cobanov, B., & Schnitkey, G. 2003. Economic losses from heat stress by US livestock industries. *Journal of dairy science*, 86, E52-E77.