

The winter of 2019-2020 was not as harsh as the previous winter, but there were still conditions that resulted in negative impacts on cattle, particularly calves. One indication of the winter weather impacts was the number of requests for Mesonet data to document losses under the Livestock Indemnity Program.

The switch from cool spring conditions to very warm temperatures brings up the other side of stress to cattle. A comprehensive tool on the weather impacts should prove useful for future events. Besides cold weather stress, this tool also helps assess the response to excessive heat and humidity.

Actual animal response to temperature stress will be dependent on a number of factors not accounted for in the index. Those include, but are not limited to: age, hair coat (winter vs summer; wet vs dry), health, body condition, micro-environment, and acclimatization.

Users can access this tool from either the main Mesonet page by selecting from the drop down menu, Agriculture, and then Comfort Index; or directly from: <http://mesonet.k-state.edu/agriculture/animal/>

Understanding the Comfort Index

Building on the Comprehensive Comfort Index, produced at University of Nebraska, this tool illustrates the impact of both extremes of hot and cold. The index is unique in that it includes, in addition to air temperature and relative humidity, effects of wind speed and solar radiation. Development and validation of the index used data from beef and dairy cattle. The map indicates where current conditions fit on the scale.

On the “About” page, there is a description of the values on the scale and their potential impact. There is also a link to the publications used to produce the page. For more information on navigating this resource, users can select a page tour from the main animal comfort page located at the top of the featured map.

Tracking conditions

A particularly useful resource is the chart feature. This allows you to monitor how conditions have fluctuated over the past week. Since stress impacts can be cumulative, having this feature allows producers to evaluate management requirements.

The current heat trend that we have been experiencing can be hard on your livestock. By using the comfort index tool, you can have a good idea of the stress they are under to better monitor the risks and be prepared. For any assistance with the tool, you can contact me at the office in Great Bend.

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