
NEWS RELEASE

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FOR IMMEDIATE RELEASE**

WSU CATTLE COMFORT INDEX ALERT SYSTEM FOR SEVERE WEATHER EVENTS

The WSU Cattle Comfort Alert System is not just for hot weather events---it can also be used for severe cold weather events like we are experiencing now. The WSU Cattle Comfort Index (CCI) is an WSU Ag WeatherNet module system to help producers be aware and prepare for severe weather events. The CCI and Alert System is a collaboration of WSU AgWeatherNet, WSU Extension, WSU Animal Science and the Washington Cattle Feeders Association. This is a web-based program for various Washington State locations to be used by cattle producers (even other livestock producers will find it beneficial), managers, veterinarians, transporters, etc to care for cattle and other livestock during severe weather events. The Cattle Comfort Index can formulate an alert system where registered users can get station specific alerts (e- mails/text) for set CCI thresholds. Besides real-time alerts, registered users will be able to render the data and develop a real-time visualization on potential weather impacts on cattle.

Some key tips to help minimize stress in livestock during cold weather events

- 1) monitor the weather so you can make a plan
- 2) Metabolic rates will increase to increase the heat of production. Animals will need more feed and more water to aid in nutrient utilization to aid in heat production.
- 3) Access to fresh water to increase nutrient utilization and reduce risk of abomasum compaction. Cattle prefer water between 40-65°F
- 4) Animals will need more calories to keep warm. Will want to pay attention to the quantity and quality of forage—animals will increase intake. Increase forage intake to increase the heat produced from rumen fermentation. Want to make sure that have adequate energy and protein to aid in rumen microbe fermentation. Low quality forage and inadequate fermentation can lead compaction.
- 5) Feed late in the afternoon so heat of fermentation is maximized during coldest part of night.
 1. 4) If possible provide shelters or wind breaks. Deep, clean, dry bedding that will help keep winter hair coats of cattle dry and clean will provide animals a good source of insulation if in good body condition.

Cattle comfort and stress is based on four weather parameters: temperature, wind speed, humidity, and solar radiation. These are all data parameters collected by the National Weather Service through regional weather monitoring stations. In combination with cattle understanding and weather data collection, cattle stress can be predicted based on an equation that combines weather forecast data to estimate cattle heat/cold stress response. With data

collection from Washington State University AgWeatherNet (AWN) weather stations in collaboration with the National Weather Service, seven-day forecast of the four weather parameters can be made to determine cattle comfort/stress and what management practices can be implemented to minimize cattle stress, production loss and/or cattle mortality during severe weather events.

To get started simply go to AgWeatherNet www.weather.wsu.edu, opening page will show various weather stations. By clicking on the value near your location of interest you will get the name of the specific weather station. To evaluate the cattle comfort index for that location-go to the "Model" link on left hand side and choose "Cattle Comfort". On this page you can select the station for modeling the CCI, you can choose up to 4 stations to monitor between. You can also select the number of days out to project (up to 7 days). You can also review past data by changing the dates. This information is available in English and Spanish. Additional factsheets will also becoming available with management strategies producers/managers can implement to help reduce the impact of weather events. Registered users of AgWeatherNet can get station specific alerts (e- mails) for set CCI thresholds by going to "My Awn" and selecting "Alert". Configure an alert by selecting station of interest and selecting "CCI" for "Alert Type". This is a very brief and simple use of the system but should be able to help get you started while we get the factsheets and videos developed. For additional information on how to register or use the CCI please contact Sarah M. Smith, WSU Regional Animal Science Specialist, at smithsm@wsu.edu or 509-754-2011, Ext 4363