# CANL: A NEW TOOL TO ASSIST LIVESTOCK PRODUCERS DURING THE 2010 CALVING AND LAMBING SEASONS

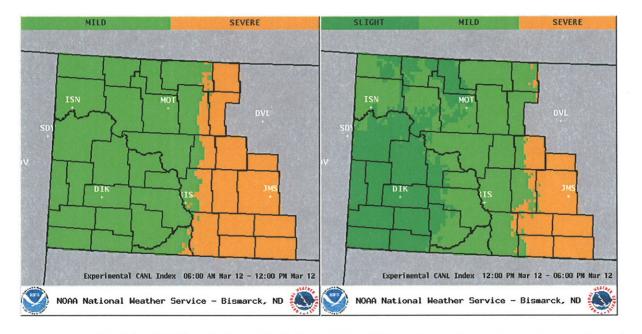
### Michele Thompson, Southwest Feeders Coordinator

Earlier this month, the Bismarck National Weather Service (NWS) office activated their Cold Advisory for Newborn Livestock (CANL) system for North Dakota counties in the western two-thirds of the state. This experimental program was designed to alert livestock producers when weather conditions are dangerous for newborn livestock. Newborn livestock, animals that are less than 24-hours old, are the most susceptible to cold stress because they are unable to regulate their body temperatures. With advanced early warning of extreme cold conditions, livestock producers can take actions to move livestock to more sheltered areas and minimize death losses and health problems to their herds associated with cold stress.

This experimental program was developed and implemented in the winter of 2008-2009 in northeast Montana by the Glasgow, MT NWS office, Dr. Larry Kalkstein and Dr. Katrina Frank. Because of the severe winter in 2008-2009 and large livestock losses in Montana and the Dakotas, the NWS decided to expand this experimental program in 2010 to include the areas served by NWS offices in Aberdeen, SD, Billings, MT, Bismarck, ND, Glasgow, MT and Great Falls, MT.

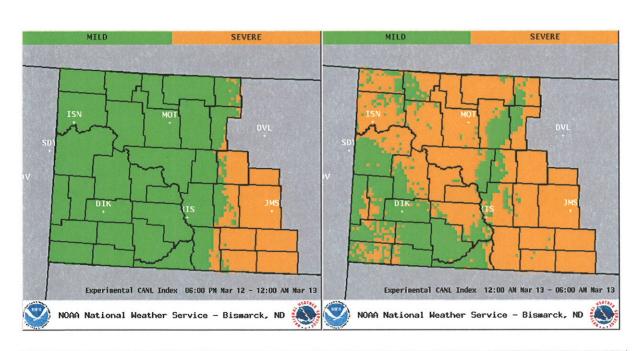
The CANL system evaluates weather variables including wind speed, air temperature, relative humidity and precipitation. These inputs, as well as the amount of sunshine versus cloudy days, are combined to tell producers where each day falls on the CANL scale. The sliding scale goes from "no advisory" when the wind chill is above 41 degrees to "extreme" when a wind chill of -18 degrees or colder for two or more hours or wind chills less than 32 degrees with 0.1 inches of precipitation occurs. Adjustments are made to the CANL scale when sunny, humid or snow conditions exist (see the CANL index flow chart and scale in detail below).

The system generates and updates graphics of weather conditions four times a day (4 am, 10 am, 4 pm and 10 pm) and the forecast graphics are available out to 36 hours in the future in sixhour intervals. This system will run from now through the end of May 2010 and is available on the internet at the following website: <a href="www.weather.gov/bis">www.weather.gov/bis</a>. Once you have accessed the Bismarck NWS office homepage, under the "additional information" tab on the left hand menu, click on the "other useful links". From here, look under the "forecast" section and you will see the link to the CANL page. Once you click on the CANL page, it will display the advisories for livestock. The NWS encourages producer feedback regarding this experimental program. Producers can provide feedback online at the bottom of the CANL page under the heading "NWS Consumer Survey about this product". I would strongly encourage all livestock producers to utilize this new NWS tool and provide feedback about the program.



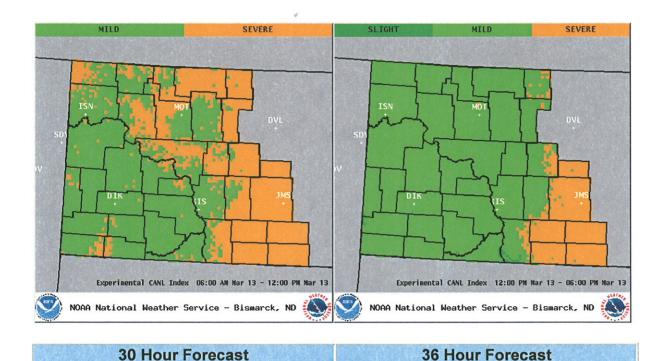
#### **6 Hour Forecast**

## **12 Hour Forecast**



**18 Hour Forecast** 

24 Hour Forecast



CANL index flowchart in detail (click image to see full size):

