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PREDICTING THE UNPREDICTABLE, OUR WEATHER

With the cold-dry weather, it makes one think what's ahead this year and plus everyone's really anxious for spring and the soil to warm. We have been spoiled by too many mild winters in the 2000 years. Some people try to predict the weather by old sayings handed down. One that I heard this week is the number of days below zero in the winter will be followed by that many days above 100 in the summer.

If weather was that predictable we would all be the experts in climatology and Al Dutcher at UNL would not be in the Nebraska Ag Hall of Fame. Dutcher talks a lot about his research on ocean temperatures and its relationship to climate predictions in the Midwest.

I studied weather records from Crete at the Doane College location this past week one evening before I wrote this column. My motivation was like the mythbusters. Is there evidence an extreme winter can lead to an extreme summer, temperature wise? To test the theory I imported temperature data from 1949 to today. The computer flagged everyday above 100 degrees and every day below zero for each year.

We had 20 days below zero this year at Crete, will there be 20 days above 100 degrees this summer? Not likely. Scorching heat and low precipitation pushed the drought in 2012 in an anomaly year among the six largest and most intense recorded in the U.S. since 1895. At Crete we had 11 days with maximum temperatures 100 degrees or over. Since 1949 the most days 100 degrees and over was in 1955 or 16 days. In the past 64 years the number of extreme heat days equaled the extreme cold days only 9 of the 64 years or 14% of the time.

When I asked Al Dutcher, he looked at the entire Crete data set back to 1893 and queried the highest 20% of minimum temperature days <0 at Crete. There were 9 times that number of maximum temperatures >95 is above the long-term average and 11 lower. For 100 degrees days, there are 7 lower and 11 higher. Average temperatures come in at 7 lower and 12 higher. Precipitation is an even split, 8 above and 8 below. His conclusion, there is no statistical bearing on a hot summer to follow extreme cold winter, myth busted!

Since the late 1990's, Al Dutcher has spoken frequently about the Pacific Ocean entering a cold phase and that drought risk increases dramatically across the western half of the country during these 20- to 30-year cycles. Researchers are finding that the Atlantic Ocean also goes through distinct cycles that last an average of 20 to 25 years.

When it comes to drought risk assessment, Al Dutcher is starting to see small pockets of colder than normal conditions developing in the Atlantic Ocean off of the southeastern U.S. coast line. If the trend continues, and with the Pacific being in a warm phase, drought frequency (tendency) would decrease from 1 in 4 to 1 in 6 or 7. If the Atlantic trend falls apart, then the drought tendency goes from 1 in 4 to 2 in 5 chance.

The El Nino forecast from the Climate Prediction Center places the odds of development this fall at 52-58%, while the Australians are indicating 70+ chance. Currently, both indicate weak conditions likely, with possible moderate event. Impacts on North America would not likely be felt until late summer or early fall.

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