

Roth: Weird and warm winter weather

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One year ago, Oklahoma City was covered with snow. The state was plummeted by nearly every weather event possible in 2011. The winter extremes were followed by Oklahoma's warmest summer.

It was a year of record-setting heat, cold, drought, tornadoes, hail and snow. Even a series of unexpectedly strong earthquakes rattled the state in November.

Entering 2012, we're experiencing the warmest winter in history, with much of western Oklahoma still enduring severe drought conditions.

The causes of the weather trends across Oklahoma and the nation are a matter of science and some speculation.

Below-average precipitation is predicted across seared areas of Oklahoma, Texas, New Mexico and Arizona. This is typical of La Niña winters.

Scientists say two forces have made the difference between last year's relentless snowstorms and this year's January warmth. The Arctic Oscillation and the North Atlantic Oscillation work together like gears to alter jet stream patterns across the U.S.

Climate change expert James Hansen and a group of NASA scientists claim that the heat wave and drought in Texas could not have occurred without global warming. An advocate of ending the use of fossil fuels, Hansen says he based his conclusion on 50 years of climate data.

Associate State Climatologist Gary McManus is in the process of determining how much the weather has deviated from past Oklahoma winters.

“It’s really impossible to determine whether this is warming of the climate or natural variability or part of the natural pattern we see,” he said.

Last year, weather-related damages in Oklahoma rose into billions of dollars. Agricultural damage alone from the drought and related heat has been estimated as high as \$2 billion.

Oklahoma’s key wheat-producing areas are beginning to see dry conditions spread due to below-normal rainfall over the last few months. Moisture is a key ingredient for establishing the wheat crop and developing it to maturity.

The price of hay has more than doubled since last year. Many cattle producers have sold their livestock due to feed and water shortages. Horses are getting sick from a strain of bacteria that vets say is likely caused by drought conditions. The nation’s cattle inventory, particularly in Oklahoma and Texas, has plummeted to a 60-year low, resulting in rising beef prices.

With some producers unable to feed their animals, more than a dozen agriculture and veterinary groups have formed the Oklahoma Livestock Relief Coalition to accept contributions and help reimburse local sheriffs for the cost of caring for neglected livestock.

Although citizens see cheaper heating bills, the nation’s warm dry weather has affected our energy industry. Cooler weather in the northern parts of the country can boost Oklahoma’s natural gas industry by increasing demand and keeping prices higher.

Oklahoma’s economy is dependent on agriculture and energy –

two industries greatly affected by weather. The cost is high when tragic losses are created by wildfires due to warm dry weather combined with notorious Oklahoma winds.

Scientists caution that the future will hold greater temperature extremes. But La Niña is expected to weaken in the spring, allowing moisture to return to much of the country.

For centuries we have felt we had little to do with creating weather conditions. With such dramatic consequences, perhaps it's time to reassess how much we can actually influence.

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