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Extreme weather expected to remain

Cause debated, but farmers begin long-term precautions

CHRISTINE TIERNEY - August 22, 2012

While many people in Michigan enjoyed the unusually mild winter, Greg Hill, the owner of the 320-acre Crooked Creek Farm Dairy in Romeo, was worried, recalls his wife, Dory. For several years, they'd seen a pattern — warm winters followed by parching heat.

"He said we'd have a drought," said Dory Hill.

This past winter, one of the mildest on record, was followed by a snap freeze in April that spoiled most of the state's fruit crop. Then, as Hill feared, a drought set in and intensified. "All of July we were just praying for rain," Dory Hill said.

As farmers from southern Michigan to California's Pacific coast struggled through the worst drought in half a century, scientists, lawmakers and officials argued over what's pushing the weather to such extremes.

Most scientists say greenhouse gases emitted by traffic, industry, energy generation and other human activity are causing global warming, but there are skeptics who say people aren't the only or the main culprits.

The Hills say volcanoes are to blame. They say weather patterns changed after the eruption of Mount St. Helens in 1980.

But even as the debate persists, the government and the agricultural industry are anticipating more hot summers and droughts and preparing for them by taking practical measures, such as developing hardier seeds that can survive harsh weather.

So far this year , more than 1,600 U.S. counties have been declared disaster zones by the Department of Agriculture after the hottest July on record. Average temperatures from January through July also hit a new high for a fourth consecutive year.

As Agriculture Secretary Tom Vilsack tours drought-stricken regions of the country, he has sidestepped the controversy over global warming, or climate change.

"I'm not a scientist, so I'm not going to opine as to the cause of this," Vilsack said on a recent trip. "All we know is that right now there are a lot of farmers and ranchers who are struggling."

Crop losses are running into the billions of dollars. In Michigan alone, they're expected to exceed $220 million this year, mostly because of ruined fruit crops.

Michigan's southern border with Ohio and Indiana where corn is grown was among the hardest-hit areas, but recent rains have provided some relief.

There's little doubt among scientists that the earth has grown warmer since the 1980s. Some say temperatures have strayed out of the range of the last 12,000 years, or since the last Ice Age.

Even staunch skeptics such as John Christy, a professor of atmospheric science at the University of Alabama and the state's official climatologist, say human activity contributes to the trend. "Most people believe there's a manmade element to global warming," Christy said.

There's less consensus, he said, about how much it's to blame. And some scientists also question whether the heat is causing the droughts. Patrick Michaels, a senior fellow in environmental studies at the CATO Institute, says the evidence doesn't establish a link between the two.

But whatever the cause of the changing weather, the effect is taking a toll. According to a recent Agriculture Department report, annual losses in the Corn Belt, extending from Ohio to South Dakota, resulting from climate change will range from just over $1 billion to $4.1 billion, with damage from crop pests adding another $600 million to the tab.

American corn growers are already using the types of seeds developed originally for North Africa and other desert regions.

"It's one of the reasons why we're still uncertain as to the impact of this drought in terms of its bottom line because some seeds are drought-resistant and drought-tolerant," Vilsack said.

According to the USDA's latest forecast, U.S. corn yields will shrink this year to their lowest level since 1995.

But given the severity of the drought, the losses could have been bigger, he said.

"Long term, we will continue to look at weather patterns, and ... work with our seed companies to create the kinds of seeds that will be more effective in dealing with adverse weather conditions."

Mark Kies of Kies Farm, a 2,850-acre property in Allen cultivated by his family for 150 years, says the drought was so bad that he was irrigating his fields by June 1, weeks earlier than usual.

Kies thought in July that he'd lose nearly half his crop. But he has been impressed by the resilience of his corn plants. During the driest stretches, they seemed to be trying to protect themselves, closing up and pollinating less, he said.

"Every day I kept wondering, what's in this seed this year?" he said. "That's pretty tough seed."

Big seed producers, such as Midland-based Dow Chemical Co. and Monsanto Co., traditionally tinker with seeds to select the best — and now the most drought-resistant.

Kies is seeing more extended dry periods now — often followed by unusually heavy rains.He is aware of the climate-change debate.

"I think about it," he said. "The jury's still out in my head whether something has changed or it's just a cyclical thing."

The climate, some scientists fear, may be changing faster than people realize. James Hansen, the top climate scientist at the National Aeronautics and Space Administration, worries that global warming could pass a critical "tipping point."

If people don't curtail greenhouse gas emissions to stabilize the climate, he told reporters, "we're ... handing a situation to our children, which is out of their control."

ctierney@detnews.com

(202) 662-8738