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Famers see a bitter harvest growing out of climate change

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Farmers have been tied to the weather since long before the first Farmers' Almanac made a prediction or offered agricultural advice. Cool temperatures well into the spring can delay the planting of crops, while a long summer can speed or extend a harvest.

Now, however, human-induced global warming has prompted farmers — especially small family farmers often on the edge of survival — to take a more emphatic stance on climate change and the need to mitigate its harmful effects on our land, air and water.

In the 2015 Pennsylvania Climate Impact Assessment Update, lead author James Shortle, professor of agricultural and environmental economics at Penn State, says we can expect temperatures in Pennsylvania to be 5.4 degrees warmer in 2050 than they were in 2000.

This could wreak havoc on how farmers operate, when you consider that warmer temperatures will alter growing cycles. Rainier summers will increase the risk of floods as well as affect crop yields. There will be new pests, weeds and plant diseases to manage. Farmers themselves will have increased exposure to the insect-borne diseases more prevalent in hot, humid climates, such as Lyme disease and West Nile virus.

There are roughly 59,000 farms in Pennsylvania. Many are small, family run endeavors, and some have operated for over 200 years. These farms often exist on slim margins and cannot afford to retool to meet the new normal for climate. But it's not only farmers who will suffer from the impact of climate change; it's all Pennsylvanians.

How will we feel when favored crops such as Lancaster County sweet corn and Adams County apples decline considerably because of rising temperatures and increased pests? When mushroom growers in Kennett Square call it a day as it becomes too costly to cool mushroom houses in the summer? When the Concord grape belt near Lake Erie sees yields decline precipitously on account of warmer winters?

Then there's the possibility that hog and chicken farmers from the sweltering South might bring their factory farming operations to a comparatively cool Pennsylvania, jeopardizing small family farms in the process.

It also bears mentioning that dairy cows, constituting the largest agricultural industry in the state, yield less milk when stressed by heat. And larger-scale beef farmers contribute more methane emissions that add to planetary warming.

We have the responsibility to act on global warming while we can. We must come to terms with the fact that global warming — which an overwhelming majority of climate scientists agree is caused by greenhouse gas emissions such as carbon dioxide and methane — is changing life as we know it. The

impact already is being felt by farmers and, increasingly, the general public. Economic tumult is around the corner.

The Pennsylvania Farmers Union supports and advocates for climate change policies. It is a voice in demanding action from, and offering solutions to, our leaders.

President Barack Obama's Clean Power Plan, an essential strategy to reduce carbon pollution from coal-fired power plants, has been stayed by the Supreme Court for a review of its merits.

A parallel course of action recently was proposed by Gov. Tom Wolf, who outlined a four-point plan to reduce methane pollution from the oil and gas sector, the largest industrial contributor of these emissions. Methane, the primary component of natural gas, is a potent greenhouse gas with 84 times the warming potential of CO₂ within 20 years of its release into the atmosphere. It's this short-term warming of the planet that can cause unresolvable damage. We applaud Gov. Wolf for his courageous commitment to climate action.

The time to act is now. As farmers well know, we reap what we sow.

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