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Jessica Darland
Iowa State University, jdarland@iastate.edu

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WIND ETHANOL AGRICULTURE & TRUMP

By Jessica Darland
“I don’t just want to hope the wind blows,” said President Donald Trump. The U.S. Cellular Center in Cedar Rapids was ringing with cheers after many remarks made during Trump’s speech on June 21st, but the cheers after this remark were sparse.

Iowa is known for its production of a few things: corn, soybeans, ethanol, and wind. The economy is based largely on agriculture, and maintaining the earth so that these sources of food, fuel, and income can continue is something that can be affected by policies made both at the state and federal levels.

Since Trump took office many policies regarding the environment have changed. He backed out of the Paris Climate Agreement, which called for a 23% cut to the EPA’s (Environmental Protection Agency) enforcement budget as well as a total agency cut of 31%. He also signed orders ending regulations that prevent pollution from various industries including coal and agriculture. Trump is working to repeal the Clean Power Plan, a policy created by President Obama that aimed to reduce carbon dioxide emissions from power plants and encourage use of renewable energy.

Republicans control congress, which makes Trump’s plan for repealing environmental policies easier. The EPA is an agency controlled by the executive branch and the President gets to choose the heads of these types of agencies, which must then be approved by congress. Agencies such as the EPA and USDA (US Department of Agriculture) consist of experts in the field to help guide politicians as they create policy since it’s impossible for the politicians themselves to become experts on so many subjects. New presidents will often choose people in their circle or people who helped them campaign rather than experts in the field to lead these agencies.

“What happens is, at the top of the agency you have people who are not technical experts, they’re politicians or they’re friends of politicians, or sometimes they don’t even have that background, and those people are actually the bosses of the people who are the experts and it almost invariably creates tension within an agency,” said senior lecturer of political science Dirk Deam.

Deam says the new head of the EPA, Scott Pruitt, is an example of this and that it’s sort of a ‘fox guarding the hen house’ scenario. Pruitt was the attorney general of Oklahoma - a state that has a big oil industry - and has spent a lot of time fighting EPA regulations. Now, he is working from within the agency to terminate these regulations.

Among these regulations are rules regarding what farmers can and can’t put into the soil. Fertilizers that include nitrogen...
and phosphorus help make up nutrients that are lost in row crops that aren’t frequently rotated and make the plants grow bigger. However, too much concentration of these chemicals can lead to problems with water pollution and algae blooms. A large concentration of animal waste can lead to similar problems. The land begins to change once it reaches its carrying capacity for these types of pollutants, and then there is a loss of excess nutrients.

“Look at the farm ponds and lakes in Iowa during July and August,” said Rick Cruse, Iowa State professor of agronomy and director of the Iowa Water Center, “You can almost walk on water, so to speak, if you can walk on moss and stuff that’s growing in our waters. Moss and algae and the aquatic plants, they respond the same way to fertilizer that corn and soybeans do.”

Cruse says a good way to combat this issue is using an integrated crop-livestock system where the farmer rotates what types of plants are grown in a field and livestock to help replenish nutrients in a more natural way. However, getting farmers to do this is difficult.

“We characteristically are infatuated with continuous row crops and the only way to make make money from that is to sell the product that you produce, ship it away to some place for it to get processed or consumed, and with it goes the nutrients that you’ve applied to it in the past year or previous years,” said Cruse. He explained farmers in the context of a bell curve; some on one end will do everything they can to conserve soil and water resources, the majority care and will generally try to use correct practices, and some on the other end will do whatever it takes to get the highest yield and biggest profit. He says regulation tries to pull those on that end in to give them an incentive to not abuse land and water resources.

However, the Trump administration is working to do away with many of these regulations. Without regulation, Cruse says it’s hard for those who are using the correct practices to compete economically with those who couldn’t care less.

Effects of climate change are already being felt by Iowa farmers - the growing season is longer so farmers are planting earlier in the
season, there is more rain and flooding, higher humidity, and dew is on the fields for a longer time which makes harvesting difficult because the plants must be dry. Cruse says to pull from any policies that would mitigate climate change is not favorable to Iowa agriculture or farmer’s yields.

Cruse said using environmentally conscious farming practices or having regulations that encourage use of these practices will help Iowa in the long run because soil will be more fertile for future generations. However, it may be difficult to get people to see the long-term effects and deal with a bit of difficulty in the short-term.

Deam explained that some are unhappy with the EPA and other regulatory agencies for simply regulating and not helping people find solutions. Both Cruse and Deam agree that education about proper practices may help reduce problems caused by agriculture.

“We still need regulation, but in addition to regulation we need positive proactive citizen involvement in protecting the environment,” said Deam.

According to IowaCorn.org, “Iowa leads the nation in ethanol production, with 39 percent (953 million bushels) of the corn grown in Iowa going to create nearly 30 percent of all American ethanol.”

While Trump himself has spoken of his support for ethanol, some in his administration are big in the oil industry and want to fight subsidies toward it.

Right now, corn produced is high in starch and low in nutrition - good for ethanol, not great for consumption as food. If the market for ethanol is reduced, there could be a drastic change in how corn is grown, as well as impacts on the state’s economy.

“If we no longer have a market for ethanol production then my thinking is we're going to have to go with more value-added products coming from the farm than a lower value product that we produce more and more and more of,” said Cruse.

Cruse says anything done to reduce ethanol production will have a negative economic impact on Iowa since so much of the corn produced is for that market.
According to Iowa’s Department of Agriculture, “The state currently has 29 ethanol refineries with the capacity to produce nearly two billion gallons annually. In addition, 18 ethanol refineries are under construction or expansion that will add nearly 1.4 billion gallons of annual capacity.”

The Iowa Department of Agriculture also says the industry has created hundreds of jobs in Iowa as well as added billions to the economy.

Another factor in Iowa’s economy is wind energy. Trump has shown his disdain for wind energy, tweeting things like, “It’s Friday. How many bald eagles did wind turbines kill today? They are an environmental & aesthetic disaster,” and “Windmills are the greatest threat in the US to both bald and golden eagles. Media claims fictional ‘global warming’ is worse.”

According to the U.S. Energy Information Administration, ‘Wind provided 36.6% of Iowa’s total electricity generation in 2016.’

Gene Takle, Iowa State University professor of atmospheric science and agricultural meteorology says wind energy has done many good things for Iowa.

“Wind energy has eliminated the need for multiple coal fired power plants in our state, improving the quality of the air we breathe and reducing the state’s contribution to global greenhouse gases,” said Takle. Wind energy has also created new jobs for installing and maintaining turbines.”
Wind is often regarded as a better, or “cleaner” source of energy. One reason it is seen as a better option because coal adds mercury, CO2 and other harmful substances to the air. This eventually gets in the soil.

However, there are some downsides to wind energy. People who live near the turbines have complained that they are loud, and the output of energy is hard to predict.

They can also kill birds and bats, but according to Takle more birds are killed from things like picture windows in private residences, large glass-covered buildings, power lines, automobiles and feral cats. Despite Trump’s comments about wind energy, Takle believes the industry will continue to grow throughout Iowa.

"'Ruining the landscape’ is a matter of personal preference,” said Takle, “Some would say that vast fields of corn and soybeans ruin a pristine landscape of prairie flowers and native grasses. Others would say putting up large ostentatious buildings also ruin the landscape."

The current expansion of wind in Iowa is driven by economics and will not be stopped by words of a president.