

U.S. News: Trading System Tackles Waste --- New Plan Pays Farmers to Curb Agricultural Runoff That Pollutes the Gulf of Mexico

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NEW MADISON, Ohio -- Kevin Hollinger planted radishes and oats last fall in his corn and soybean fields, but he isn't planning to harvest them. Instead, he is letting the crops die over the winter to improve the soil and keep fertilizer and other nutrients from running into nearby waterways.

"I could hardly go to town without someone asking: 'What's that in your field?' " said Mr. Hollinger, a fourth-generation farmer.

Helping to foot the bill for his experiment is a pilot program set to launch fully next month. Farmers in the Ohio River basin are being paid to make changes -- from what they plant to how they handle manure -- in an effort to minimize runoff that can cause hypoxia, or low oxygen levels, in waterways.

Nutrient runoff plays a role, nearly 1,000 miles downstream from Mr. Hollinger's farm, in the formation of the so-called dead zone in the Gulf of Mexico -- an area where fish and other aquatic life can't survive and which is considered one of the nation's biggest water-pollution problems,

Shrinking the dead zone -- which was most recently the size of Connecticut -- has challenged regulators. Nutrients that flow down in the Mississippi River and end up in the Gulf come from hundreds of thousands of sources across more than a dozen states.

"It takes a long time to address such a large watershed and such a significant problem," said Nancy Stoner, acting assistant administrator for water at the U.S. Environmental Protection Agency.

The agency doesn't have the power to regulate most farms, and leaves controlling nutrient levels in lakes, rivers and streams largely to the states. Environmental groups, who argue the states have taken little action, have sued the EPA to force it to set acceptable levels for nitrogen and phosphorous in the Mississippi basin.

Increasingly, several government and nonprofit groups, including the Electric Power Research Institute, the research arm of the U.S. utility industry, are trying an approach outside of traditional regulation. The institute is setting up a trading system, starting with about 30 farms across Indiana, Ohio, and Kentucky. Those farms create credits by keeping nitrogen and phosphorous from reaching the Ohio River. The credits can be sold to power plants, sewage plants and other facilities that release nutrients into local waterways.

"Our project is trying to set the table," said Jessica Fox, manager of the program, which is designed to work on a larger scale.

The goal isn't just to develop a new market. The projects also hope to persuade farmers that certain changes in the field can help the environment and boost their operations. Crop covers, for example, are sowed to improve soil quality for future plantings and reduce runoff by holding the soil in place and making it better able to absorb and retain water.

Last fall, Mr. Hollinger planted radishes and oats on 200 acres of his farm after harvesting his corn and soybean crop. The seed cost about \$5,000. Offsetting the expense was \$2,000 from the institute, which will sell the credits the project produces. When Mr. Hollinger plants corn and soybeans in the spring, the harsh winter should have killed the radishes and oats and he can sow his fields as usual.

"I feel like if we do a good job now, we can certainly head off the need for regulation," Mr. Hollinger said, though he says he will need to see better production or a reduction in costs to stick with it.

In total, the pilot projects are expected to keep about 66,000 pounds of nitrogen and 30,000 pounds of phosphorus out of the Ohio River. Credits for some of those reductions will be sold next month to utilities, including American Electric Power based in Columbus, Ohio. It plans to spend \$50,000 on credits as seed money for a market that it believes will demonstrate a low-cost way to reduce a variety of pollutants, a company spokeswoman said.

Several environmental groups support the development of such markets, but say they only will work if regulators set an overall cap on nutrient levels. A limit creates demand since sewage treatment plants and other facilities will need to buy credits to meet it, drawing in more farmers. The lack of a strict cap is one of several issues that has stunted similar environmental markets tried elsewhere in the country, according to a 2011 study by U.S. Department of Agriculture economists.

Now, "there is no regulatory backstop to the voluntary plans and ideas being worked on. You've got the speed limit sign without a number on it," said Brad Klein, a senior attorney at the Environmental Law & Policy Center.

For now, Allan Kirkpatrick is taking voluntary steps with the help of the pilot program to control manure on his cattle farm in southern Indiana. He transformed an area for his cows and calves from a messy mix of mud and manure to a more solid surface topped with crushed limestone. That enables him to scoop up manure and spread it on nearby fields where it is unlikely to become runoff. The program paid most of the \$6,000 cost for materials and equipment, allowing him to complete the work in one year rather than several years.

"I knew the benefit was there, I just didn't have the funds to do it all," Mr. Kirkpatrick said. In the area, "there are more people seeing [the project] and seeing the advantages of it."