

Polluting Farmers Should Pay

Fertilizer runoff is making us sick. States can step in to regulate farmers.

Aug. 25, 2019



Paige Vickers



By Catherine Kling

Dr. Kling is an environmental economist at Cornell University.

This year's [dead zone in the Gulf of Mexico](#) — an area where decomposing algae consumes all oxygen in the water — logged in at nearly 7,000 square miles, about the size of New Jersey. Researchers in the Great Lakes region predict that this year's harmful [algal bloom in Lake Erie](#) will be twice last year's size, and [larger](#) than the 2014 bloom that shut down the drinking water supply in Toledo, Ohio. [Floridians](#) and [Chesapeake Bay](#) residents regularly experience the green gunk and odor symptomatic of algal blooms. The Environmental Protection Agency reports that [all 50 states](#) now experience harmful algal blooms.

These blooms contain toxins that can make us sick after swimming or consuming tainted fish, kill pets and livestock, and raise treatment costs for drinking water. Algal blooms reduce recreational enjoyment from boating, fishing and swimming — resulting in less tourism and lower property values. The economic cost associated with the single shut down of Toledo's drinking water system is estimated at [\\$65 million](#).

The common thread? [Nitrogen and phosphorus pollution](#), commonly called nutrient pollution, the bulk of which comes from agricultural fertilizer and manure runoff. The solution seems clear: Those who cause the pollution should be required to pay for the cleanup, using regulations to ensure that farmers reduce nutrient pollution. State governments have the power to make this a reality.

Ranching, growing intensively fertilized grain crops, dairy farming and livestock production in the United States provides abundant food for the world. However, this success has also produced an explosive growth in toxic algae and phytoplankton from fertilizer and manure runoff. While urban runoff, fossil fuel use, and failing sewer systems [contribute to the problem](#), there is scientific consensus that agricultural generated nutrients are dominant in many areas.

Surprising as it may seem, the [1972 Clean Water Act](#) — whose stated goal is fishable and swimmable waters for all — has always [exempted most agricultural pollutants](#) from regulation. This nearly 50-year-old policy prevents the federal government from employing a polluter pays approach — a method that has proved successful in tackling industrial and municipal sources of water pollution, including raw sewage, toxic chemicals and industrial byproducts. Instead, the Clean Water Act relies on voluntary action from farmers. In effect, farmers are requested to change their behavior and voluntarily raise their own cost of production, even when their competitors do not, to fix a water quality problem that often occurs far downstream.

Farmers could do more, but competitive realities limit even those producers with the best intentions. Reducing fertilization can help, but even when carefully applied, some fertilizer inevitably leaves fields and accumulates in waters. [Costlier changes](#) — such as planting a cover crop in the fall to prevent nutrient loss over the winter, restoring wetlands and streams, planting vegetation at the edges of streams and managing drainage — would help. Currently the only option is for taxpayers to pay them to make these changes.

Last year, taxpayers spent five billion dollars to take land out of production and [support conservation practices](#). This may sound like a lot, but five times that was spent on industrial and municipal pollution control, much of it paid for by the businesses and cities that generate pollution. Even at current levels of taxpayer support, the state of Iowa reports that [additional conservation practices](#) are needed on the bulk of its 25 million acres to solve its contribution to the Gulf dead zone.

What's more, the E.P.A. reports that 150,000 miles of streams and nearly five million acres of lakes across the country remain impaired from nutrients. And while most Americans drink water from publicly filtered sources, nearly 14 percent drink water from [private wells](#) with no required monitoring or treatment requirements, making them vulnerable to nitrate pollution. [Blue baby syndrome](#), for example, is a rare but well-known problem when infants ingest nitrates. Recent studies suggest that nitrates in drinking water are associated with [increased risks](#) of colorectal cancer, thyroid disease and birth defects.

Although the federal government cannot regulate agriculture under the Clean Water Act, states can. They are free to impose taxes, require permits and regulate in any way they see fit. A few have taken action. Iowa, Maryland, Minnesota, Vermont and Wisconsin ban the use of [manure fertilizer on frozen ground](#), a practice known to prevent runoff. More ambitiously, in 1995 Florida required conservation actions in the Everglades Agricultural Area such as storm water management, erosion controls and more precise fertilizer application on farms. [Reductions in phosphorus pollution](#) occurred [promptly](#), and the annual average decrease of 50 percent has exceeded the regulation's goals. Though the area covers less than 5 percent of [Florida agriculture](#), it demonstrates the compatibility of regulation and a successful agricultural industry.

Regulations need not be one size fits all. States can tailor requirements and taxes using local conditions to be as cost-effective as possible. Market-based incentives can help keep costs down as can the redirection of existing taxpayer dollars. Regional agreements among states — akin to the Regional Greenhouse Gas Initiative originated in 2009, under which nine Northeastern states [jointly administer a carbon market](#) with declining allowed emissions — could assure a level playing field for farmers across state lines.

Differential treatment of agricultural polluters cannot continue. Requiring polluters to pay has been the backbone of substantial and persistent water quality gains in other sectors. Yes, such measures will raise the cost of meat, dairy and grain products, they will result in lost exports (though fewer than in our current trade war), and they will affect some farmers' bottom lines. But without them, costs will continue to fall on families returning from a day at the beach with stomach aches, on households whose members unknowingly drink contaminated water, on pet owners whose animals suffer the effects of toxic water and on consumers who must pay for bottled drinking water.

Voluntary adoption is a flawed policy. To achieve swimmable and fishable water for all Americans, we must go beyond it.

[Catherine Kling](#) ([@ckling19](#)) is an environmental economist at Cornell University.

The Times is committed to publishing [a diversity of letters](#) to the editor. We'd like to hear what you think about this or any of our articles. Here are some [tips](#). And here's our email: letters@nytimes.com.

Follow The New York Times Opinion section on [Facebook](#), [Twitter](#) ([@NYTopinion](#)) and [Instagram](#).