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A mix of barley, peas and flax grows in a field at Casey Bailey's farm near Fort Benton, Mont. Bailey sells this crop to Montana dairy farmer Nate Brown, who has been feeding it to his goats.

National Public Radio: Diversifying Crops Is Good For The Planet. But Can It Be Good For Farmers' Wallets?

There is a swath of the Gulf of Mexico that's virtually devoid of life because algae blooms have choked out marine plants and animals; [scientists say](#) it is growing and getting worse.

One of the culprits lies to the north, in the massive amounts of fertilizers used on corn and soy farms throughout the Midwest.

There are some relatively simple steps farmers can take to reduce the amount of fertilizer that washes off their farms and into the Mississippi River, ultimately feeding the algae in the Gulf, but there's little incentive for them to do so.

Some key players, though, are coming together to change the game — with potential benefits for farmers financially, and for ecosystems in general.

It's as simple as supply and demand: Farmers, nonprofits, researchers and food conglomerates are trying to find ways to create markets for crops that, if grown in rotation among the corn and soy, can not only reduce fertilizer runoff but also boost soil health in a number of other ways, which [can help](#) in the battle against climate change and potentially improve the efficiency of animal agriculture. [Read More](#)

USDA Establishes Domestic Hemp Production Program

On Oct. 29, U.S. Secretary of Agriculture Sonny Perdue announced the establishment of the U.S. Domestic Hemp Production Program. This program, as required by the 2018 Farm Bill, creates a consistent regulatory framework around hemp production throughout the United States.

“At USDA, we are always excited when there are new economic opportunities for our farmers, and we hope the ability to grow hemp will pave the way for new products and markets,” said Secretary Perdue. “We have had teams operating with all hands-on-deck to develop a regulatory framework that meets Congressional intent while seeking to provide a fair, consistent, and science-based process for states, tribes, and individual producers who want to participate in this program.”

A [preview of the rule](#) is posted on USDA's website. [Read More](#)

National Geographic: The solution to climate change is just below our feet

Adam Chappell was in the fight of his life. He and his brother were co-managing the 9,000-acre farm where they grew up in Cotton Plant, [Arkansas](#). They'd each gone off to college to do something different, but couldn't stay away. Now an invasion of pigweed was threatening to destroy everything.

“We were spraying ourselves broke just to fight this weed,” Chappell says. “We were spending more money than we could ever hope to make. So for the farm to survive, we knew we had to change the entire way we were doing things.”

Chappell turned to YouTube, where he found a guy growing organic pumpkins in a cereal rye cover crop, and was awestruck by the clean, wide rows. “He hadn't put any herbicides down; all the weed control in that field was the cover crop,” he says. That fall, the Chappell brothers planted cereal rye with their cotton and soybeans, and they kept the farm.

Chappell's triumph over pigweed made him a proponent of regenerative farming practices. He stopped tilling most of the soil, which depletes it, and he's nearly eliminated pesticide and synthetic fertilizer. His soil has become healthy and dark, alive with earthworms, rich with carbon. That's good for Chappell, and

even better for the rest of us. It means that, aside from producing more nutritious food, his farm is helping to reduce the amount of carbon dioxide in the atmosphere.

Agriculture has played a major role in the climate crisis—about a quarter of the world’s greenhouse gas emissions come from land use and agriculture combined—but farmers are uniquely situated to be part of the solution. While the amount of carbon dioxide in the atmosphere has reached its highest level in human history, plants can draw down the carbon and restore the soil’s organic carbon content—in the right conditions. If enough farmers adopted regenerative farming practices, they could begin to reverse the effects of climate change. [Read More](#)

Forbes: Innovation Abounds In Indiana – Here’s Why

Indiana is done being modest. And global companies, top-tier publications and “places to watch” lists are taking notice. Indiana has made headlines as a rising tech hub and continues to be a place where national and global companies are establishing headquarters and business centers.

Indiana has long been known as a leader in agriculture, with an abundance of natural resources and fertile land for livestock and farming. This foundational production strength combined with the surge of investment in agtech has made Indiana the ideal place for the next wave in agricultural innovation: agbioscience development. The term ag+bio+science, created by AgriNovus Indiana, captures the innovative spirit, tech assets and farming expertise unique to the state. [Read More](#)

NBC News: Can regenerative agriculture reverse climate change? Big Food is banking on it.

More than 20 years ago, [Will Harris](#) was a cattle farmer who relied on common industrial tools like pesticides, synthetic fertilizers and antibiotics. Today, his 2,500-acre ranch in Bluffton, Georgia, is a holistically managed, no-waste operation with 10 species of livestock rotated to graze the rolling pastures and fertilize the land without chemicals, resulting in rich, healthy soil.

"I've literally bet the farm on it working," Harris said.

General Mills, the packaged food giant, is one of several Big Food corporations jumping on the regenerative agriculture bandwagon, escalating the buzz around the idea that capturing carbon in the soil could reverse climate change. The company took the lead when it [announced this spring](#) that it would apply regenerative agriculture to 1 million acres by 2030 — about a quarter of the land from which it sources ingredients in North America. [Read More](#)