

US farmers want to adapt to climate change, but crop insurance won't let them

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In Kansas, where a prolonged drought has killed crops and eroded the soil, Gail Fuller's farm is like an oasis. Sheep, cows and chickens graze freely on crops and vegetation in a paradisiacal mess.

But if Fuller's farm were to be hit by a tornado or flood, or be seriously impacted by the drought, he would be alone in footing the bill. That's

because his [farming practices](#) aren't protected by federal crop insurance, a nearly century-old safety net that hasn't adapted to the [climate change](#) era.

Fuller is one of a growing number of farmers who are uninsured or under-insured because the industry doesn't support switching from traditional to regenerative farming, an approach that has the potential to sequester enough carbon to halve agricultural emissions by 2030. That shift is becoming more urgent both to slow climate change and insulate farmers from its impacts, yet the insurance industry continues to stand in the way.

In the U.S., agriculture accounts for about 11% of all greenhouse gas emissions. A large portion of that is tied to tilling soil, which releases carbon dioxide, and applying excessive fertilizer, which emits nitrous oxide. The latter is a greenhouse gas that's more than 270 times more potent than CO₂.

Regenerative farming reduces those emissions by soaking up carbon dioxide through photosynthesis, storing carbon in the soil and capturing nitrogen that would otherwise run off into nearby streams.

Extreme weather is also becoming more frequent, threatening [crop yields](#) and supply chains. Twenty-four states, including Kansas, are experiencing severe to exceptional droughts, according to the U.S. Drought Monitor. That poses a problem, as does heavy rain that can waterlog crops and is falling with increasing intensity.

Almost 20% of the \$140 billion in crop insurance payouts from 1991 to 2017 were due to rising temperatures, according to researchers at Stanford University. They estimate that percentage will continue to rise with the increasing frequency of extreme weather due to climate change.

Despite these risks—and the benefit regenerative agriculture can play in addressing climate change—stronger incentives have locked in the status quo, according to Anne Schechinger, Midwest director at the nonprofit Environmental Working Group (EWG).

Crop insurance policies mainly cover conventional commodity crops such as corn, soybeans, cotton and wheat. Farmers growing them typically enroll in multi-peril insurance, which insures individual crops against poor harvests caused by disease, flooding, droughts and other extreme weather.

Like health, car or property insurance, appraisals for losses or damages rely on standards—known as Good Farming Practices—that ensure low yields aren't caused by mismanagement. But these rules cannot include a practice that may lower a crop's yield and therefore tend to follow established industrial, monoculture practices: A farmer caught growing different crops between rows or terminating their [cover crops](#) too late, for example, is at risk of having their [insurance claims](#) denied.

Regenerative agriculture often involves interspersing different crops in the same field and growing lower-yielding perennial plants that can create issues for insurers. But crop insurance payouts largely don't depend on whether a farmer's practices increase or mitigate climate risks, according to University of Iowa professor Silvia Secchi.

Fuller, a third-generation farmer, started experimenting with regenerative farming practices in the mid-1990s, believing he'd see better yields and more resilient crops in the long term. He had grown cover crops in the off-season, one of the more commonly employed regenerative farming practices that involves planting non-market crops that improve soil health. At the time, Fuller was still covered by crop insurance and, per insurance rules, killed his cover crops with herbicide before growing his market crop.

But when his insurance company appraised the land in August 2012, during a severe drought, it determined that the remnant cover crops were weeds. The company denied all of Fuller's claims—which led to his lending institution dropping his operating line of credit.

Fuller sued his insurance company and won. Two years later, however, when he needed them to cover losses for two fields of soybeans, they denied his claims again. The financial turmoil across those two years forced him to downsize his farm to 400 acres from 1800, and he finally decided to quit crop insurance entirely.

"Once you go broke as a farmer, it's pretty hard to claw your way back," Fuller said. "I did not want to be a part of that system. We've got to find a better way to farm."

The U.S. Department of Agriculture has introduced reforms and alternatives to the crop insurance program to accommodate climate risks over the past decade, including adding coverage for new crops and a \$5-per-acre incentive to plant cover crops during the offseason.

The Risk Management Agency, which controls federal crop insurance, also has expanded its coverage of certain climate-smart practices, like lowering water use, cover cropping and injecting nitrogen into the soil, rather than layering it on the soil's surface. Farmers must still follow specific rules, such as terminating their cover crops early enough, which some scientists think limits how much these practices can reduce emissions.

The crop insurance system is already under stress from climate change. The program has to evolve to incentivize practices appropriate to different regions and cover a variety of risks, a USDA spokesperson said, all while being actuarially sound—meaning the program must charge high enough premiums to cover expected losses.

"Even at a micro-scale, a bad storm may be damaging to one type of crop, while providing much-needed rain for another crop," the USDA spokesperson told Bloomberg Green.

"Crop insurance is voluntary," said RJ Layher, the director of government affairs at the American Farm Bureau Federation. Farmers practicing regenerative techniques not covered by the Good Farming Practices can look for other options, he added, including showing the Risk Management Agency that their practices are actuarially sound.

Collecting sufficient data to prove that climate-friendly practices like crop diversification won't impact yield is a big ask for any one farmer, however.

The USDA also initiated the Whole-Farm Revenue Protection Program in 2014, which insures a farm's entire revenue rather than individual crops, providing a safety net for farmers who plant companion crops or raise animals in their fields.

But the number of farmers participating in the Whole-Farm Revenue Protection Program is small, according to EWG's Schechinger. About 1,800 policies were sold in 2023, according to the USDA, which accounts for less than 1% of crop insurance.

The program involves significantly more paperwork and an insured revenue cap that doesn't always cover the entire farm's revenue, which can be prohibitive to insurance agents in selling and farmers in buying the policy, Layher said.

According to Layher, the Farm Bureau supports improvements to the Whole-Farm Revenue Protection Program that would make it more accessible to farmers and easier for insurance agents to sell—both reforms are proposed in the Farm Bill that is stalled in the House until at

least September.

The regenerative farming movement is relatively small, but it's gained steam in recent years thanks to federal support and agribusinesses eager to align their supply chains and sustainability goals. Companies like CoverCress Inc., which is majority-owned by Bayer AG, are trying to get farmers to plant cover crops that can be used for sustainable aviation fuel.

But for now, the push for changing insurance rules still relies largely on farmers like Fuller and Rick Clark, a third-generation [farmer](#) from west central Indiana who has been uninsured for six years because he practices regenerative farming.

When he's not working his farm—which utilizes cover crops across all 7,000 acres—Clark teaches other farmers how to eliminate chemical fertilizers and use cover crops on their farms.

"We have to make sure the path towards change is an easy path," Clark said. One of the biggest challenges uninsured farmers face is from their lending institution, which often requires them to have an insurance policy to continue receiving loans.

Clark testified in front of Congress in late 2022 on behalf of Regenerate America, a coalition that lobbies for agricultural reform, asking for the legislative reforms Schechinger said are necessary. The day after Clark testified, Congress passed the Inflation Reduction Act, President Joe Biden's landmark climate law that includes a \$19.5 billion investment into USDA conservation programs. He felt like he had a small part to play in that.

"At some point when you're in there, you wonder if anybody's even paying attention to what you're saying," Clark said. But then, "you feel

like maybe your words don't fall on deaf ears and maybe there are people who are truly paying attention."

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