



How Crop Insurance Prevents Some Farmers From Adapting to Climate Change

The Federal Crop Insurance Program helps steer the direction of U.S. agriculture. But advocates and farmers say its policies have often failed to benefit the most climate-adaptive farms—and penalizes farmers for adopting some climate-friendly strategies.

BY GREY MORAN SEPTEMBER 20, 2023



Commodity farmers often grow tillage radish as a cover crop to improve their soil. Cover crops must be grown during prescribed, often very narrow windows for cash crops to be eligible for federally subsidized crop insurance. (Photo credit: Sustainable Agriculture Research and Education Cover Crop Image database)

Chris Grotegut has earned a reputation in the High Plains of Texas for farming practices that have helped replenish the region's depleted aquifer. Just over a decade ago, he began converting his 11,000-acre farm to perennial native grassland to rebuild the health of his soil. He planted wheat and other grains directly into the meadows and relied solely on rainfall for much of his acreage. It soon proved worth it.

Water runs right off dry soil, but healthy soil is absorbent. The water table beneath Grotegut's land didn't just stabilize—it began to rise in some places. The regenerative farming practices allowed him to stop pumping groundwater on most of his land.

Grotegut now sees this model of farming as the solution to the increasing desertification in the stretch of Texan desert that overlies the Ogallala Aquifer, the massive, quickly depleting underground reservoir that lies beneath the Great Plains, stretching from North Texas up to the Dakotas.

There is, however, one major drawback: Grotegut's efforts to save water have left his crops largely uninsurable by the U.S. Federal Crop Insurance Program (FCIP), the multi-billion dollar program designed to protect and stabilize both farmers' livelihoods and the U.S. food supply.

Even though his primary crop is wheat, one of FCIP's most widely insured crops, his land management system disqualifies him from coverage. He was specifically denied coverage for harvested crops grown in the grasslands. Instead, his insurance is limited to a small plot where he grows many of the same crops in rows under pivots, a more legible system to FCIP.

And while he's staying the course on regenerative practices, it's easy to see why most farmers keep growing vast tracts of irrigated soy and corn over depleted aquifers instead.

A recent *New York Times* investigation found that the U.S. is rapidly running out of groundwater, including historic lows in parts of the Ogallala Aquifer. And experts say federally subsidized crop insurance is part of the problem. Irrigated crops receive higher payouts than dryland crops, while farmers often risk their coverage to engage in some of the most ecologically sound practices. Even if a crop is dying, farmers can still be required to irrigate it to maintain insurance.

Under the sweeping FCIP, administered by the U.S. Department of Agriculture's (USDA) Risk Management Agency (RMA), most participating farmers receive what's known as multi-peril insurance, receiving payments for crops that die from a range of causes, from flooding to fungal disease to extreme heat.

But there's a catch: Farmers must also prove that they weren't at fault for the failed harvest by following a specific, FDIC-approved set of standards called the Good Farming Practices. If farmers stray from these practices, they are penalized with either denied claims or reduced payments. And while the practices vary regionally, determined by approved local experts, they tend to favor commodity row agriculture.

Farmers can be penalized for under-fertilizing, under-watering, keeping a cover crop in the ground for too long, and not growing in distinct rows, according to interviews with farmers and insurance experts. Any practice that "could affect the amount and quality of the crop" can potentially violate the Good Farming Practices, according to RMA's guidance.

Yet this often ends up excluding farming methods known to benefit the environment, such as intercropping, where multiple crops are planted together. This method is exemplified by the three sisters, the Indigenous practice of growing corn, beans, and squash together. If crops aren't managed separately, in distinct rows, this practice is widely prohibited across regions.

"The crop insurance program is designed for a very linear thinker—for being able to check a box 'yes' or 'no.' The more creative ways of farming or adapting are really not feasible," said Grotegut. "Even though what we're doing is absolutely [moving in] the right direction, ecologically and long-term economically, it's not doable if you're following the rules."

In Grotegut's case, wheat grown in grasslands is certified as "mixed-species forage" by the USDA's Farm Service Agency. It is certified organic and ends up in bakeries, but it's also denied coverage as wheat.

The crop insurance program—funded by the premiums paid by farmers and an \$11 billion subsidy so far in 2023—has been steadily expanding in size in recent years as persistent drought, wildfires, and flooding take a sharp toll on U.S. farms. Yet this funding is unevenly distributed to mainly benefit the largest 10 percent of farms. This narrow segment receives over half of all crop insurance subsidies, funding their capacity to further expand in a cycle of farmland consolidation associated with greater climate vulnerability.

A USDA spokesperson told Civil Eats in a recent email that the agency is working to bridge the gap between its recommendations for climate-friendly practices and its coverage. “From providing greater flexibility for cover crops to covering innovative practices such as split application of nitrogen, RMA has made great strides in harmonizing conservation and crop insurance,” the spokesperson said.

However, farmers, advocates, and experts across the country say that FCIP has presented steep barriers to adopting ecological and climate-friendly practices, including onerous reporting requirements and strict rules for maintaining coverage. As lawmakers negotiate the 2023 Farm Bill, advocates see a window to reform its policies that are hindering the type of farming supported by the USDA’s own climate initiatives.

As it stands, the program often leaves farmers who conserve resources and mitigate climate change uninsured or underinsured, while subsidizing farmers who depend heavily on pumping groundwater and the use of synthetic fertilizers on marginalized land.

Caught Intercropping

The Biden administration has made historic investments in “climate-smart” farming practices generally aimed at increasing soil fertility, yet the FCIP can act as a barrier to these goals by disincentivizing some of the same practices.

“We’re incentivized to eliminate fallow, practice diverse rotations, and intercrop—all of these sorts of things by federal conservation agencies and paid to do so under contracts,” said Montana farmer Doug Crabtree. “At the same time, if you do those things, you’re ineligible for crop insurance, which is administered by a federal agency under the [U.S.] Department of Agriculture. It’s a ridiculous juxtaposition.”

For instance, the USDA’s Natural Resource Conservation Service (NRCS) promotes intercropping as a way to improve soil health and water retention. Yet under the most utilized insurance plan covering a range of risks, farmers can be denied an insurance claim if caught intercropping by an insurance adjuster. In fact, earlier this summer, Crabtree was accused of intercropping barley and peas, risking his coverage.

“[The adjusters] came out and inspected it and said, “Well, there’s barley in those peas, so you must have intercropped,” said Crabtree. “I said, ‘No, I did not intercrop. I had barley in that field last year.’” While he claims most of the barley grew naturally from the seeds of last year’s crop, the adjusters questioned his intentions.

This seemingly minor dispute carries large consequences. Crabtree had a lower pea yield, which he attributes to the drought. “It became hot and dry again right when the peas, in particular, were trying to flower,” he said. However, in growing two crops at once, the insurance adjuster may consider him at fault. He’s still waiting on the final word from the insurance company.

“It’s based on this fallacy that intercropping automatically reduces the yield of the crop,” said Crabtree. “It’s simply not true.” In fact, a 2021 paper published in *Nature Sustainability* found that the practice increases yields by an average of 22 percent compared to monocrop systems, while improving soil health.

Another organic farmer who spoke to Civil Eats anonymously, for fear of risking his crop insurance coverage, admitted to covertly intercropping flax and chickpeas. He uses only a small amount of flax hoping it will be overlooked. It’s a combination that has been shown to reduce *Ascochyta* blight in chickpeas, which can lead to crop loss.

“I just seed the minimal level of 10 pounds [of flax] an acre with my peas. So, it’s just a little bit in between that keeps more of the weeds out and then I get some extra flax for selling,” said the farmer. “I don’t talk about it too much.” The farmer said that the flax was once spotted by an insurance adjuster, who ultimately turned a blind eye. But another adjuster might not let him off the hook.

“I think the future of no-till organic on the Great Plains is intercropping two or three crops together. It just throws [insurance agents] into a whirlwind. They don’t know how to handle it,” said the farmer.

In the current farm bill, passed in 2018, the RMA incorporated insurable cover cropping, a widely recognized climate-friendly practice that pairs well with others such as reduced tillage and managed grazing. But the catch is that farmers must comply with strict rules for terminating cover crops under the premise that they will influence the yield of the incoming crop. In some regions, keeping a cover crop in the ground for too long disqualifies farmers from higher insurance coverage. And fallowing fields, or keeping them barren for a season, yields higher payments.

“To qualify for summer fallow [payments for wheat], you have to terminate cover crops no later than the first of June,” Crabtree said. “Well, that basically means you can’t grow cover crops because [in Montana] we don’t seed things until late May. It’s pointless to seed something and it’s barely emerged and then you have to terminate it.”

If the cover crop is allowed to grow into June, then the next crop that gets planted in that field would fall under “continuous coverage”—a designation that results in a lower insurable yield if the crop fails, regardless of the farmer’s actual yield history. This disincentivizes continuous planting and cover cropping, a management strategy that the USDA’s Climate Hubs promote as a way to build climate resilience, reduce erosion, and provide other benefits.

The Good Farming Practices also include herbicide and fertilizer rates, typically determined regionally by university extension agents, explained Anne Schechinger, a crop insurance researcher and the Midwest director of the Environmental Working Group. But this can also be detrimental to the climate and water quality.

“In many states, the recommended rates [for fertilizer] are just too high and lead to nitrate runoff,” Schechinger said. This is a major source of groundwater pollution, spawns oxygen-deprived dead zones, and accelerates climate change. “If you’re using more nitrogen fertilizer, you’re going to have more nitrous oxide emissions,” she added.

However, there is an option for farmers to work with an insurance agent to develop a written agreement to cover less recognized practices. It’s a tedious process. It typically requires the farmer and agent to compile extensive research on the practice, which is submitted to the insurance company and then RMA for approval.

“When I do a request, at a minimum I’m submitting at least 50 pages,” said Ginny Olson, an insurance agent at Lockton Companies. “It does take quite a bit of time”— to a point where some agents might not be willing to do this. But if she can prove that it’s an effective, accepted organic practice, her request is usually approved.

‘On Paper, It Looks Like We’re Covered. We’re Not.’

For many farmers, one of the largest barriers to adopting more climate-friendly farming practices is the upfront resources needed. New practices often require new tools, research, planning, and manual labor. The FCIP adds an additional hurdle by penalizing farmers transitioning aspects of their farm by reducing their coverage.

Under the most common federal crop insurance policy, each crop is insured based on the farmer's yield history with that crop. However, if a farmer wants to transition to a new crop, field, or farming practices, they are given a transitional yield ("T-yield") based on a reduced percentage of the county's average for that crop. Farmers receive a 35 percent reduction when transitioning to certified organic, which is often too low to trigger claims.

"On paper, it looks like we're covered. We're not because we're self-insuring even though we have these programs," said Amy Bruch, an organic farmer in Nebraska. "They just give you an actuarial number. And then you're stuck with that."

Recognized as an innovative farmer, the Organic Trade Association named Bruch its 2021 Organic Farmer of the Year. Her crop yields tend to be much higher than her actuarial numbers, resulting in highly limited coverage. She refers to the coverage as "catastrophic" insurance because it only kicks in if a crop is nearly wiped out.

"If I have 30 percent damage, I would never trigger a claim. I would still out-yield the coverage," Bruch said. This reduced coverage is intended to last for four growing seasons. However, it can amount to 20 years for some organic farmers, like Bruch, who do frequent rotations and don't grow the same crop every year.

"This doesn't get discussed because it is complicated on the outside to understand, but it's one of the biggest barriers to organic production," Bruch added.

She sees the solution as simple: provide growers in transition with customizable insurance plans to reflect their actual yields.

The Endless Paperwork of Diversified Farming

In other sectors, insurance premiums generally rise as the risks of catastrophe or other damages increase. But FCIP's most utilized insurance plan looks narrowly at production history, basing future risk on historic conditions. This fails to account for longer-term future risks in the food system, such as aquifers running dry, and farming methods that can help a farm adapt to the growing threat of climate change.

It's well-established that one of the most effective ways for farmers to reduce risk during disasters is by growing a variety of crops. This offers a built-in level of resilience, by spreading out risk across crops and seasons. For instance, a farm that only grows sunflowers is vulnerable to a strong wind, but that risk is lowered if the farm grows wind-tolerant crops too. Crop diversity also helps build up soil health, another buffer to disaster.

However, a highly diversified farm is almost impossible to insure. Even if the farm qualifies for insurance, the paperwork required often makes it infeasible.

Under the FCIP's largest program, farmers are required to take out individual insurance policies for every crop. This is simple if you're just growing corn and soybeans every year, but it can quickly turn into a paperwork nightmare for farmers growing a rotating, colorful medley of crops.

As a result, crop insurance is inaccessible for farmers and farming traditions that prioritize crop diversity, including many farmers of color and Indigenous farmers whose traditions gave rise to what is now called regenerative agriculture.

Larisa Jacobson, Climate Justice Co-Director and a founding member of the Northeast Farmers of Color Land Trust, said that almost all the farmers in the network—around 600 BIPOC farmers in 12 states throughout the Northeast and in Washington D.C.—lack crop insurance.

“We have these folks growing at a really small scale, highly diversified, with many different crops,” said Jacobson. “Since crop insurance is often crop-specific, the bureaucratic paperwork load for people is really prohibitive.”

Currently, commodity crops, like wheat, corn, and soy, and 80 “specialty crops” that include fruit, vegetables, and nuts have FCIP policies. Jacobson points to how the RMA's process for expanding crop coverage is based on “significant grower interest,” yet most farmers in their network aren't in communication with the RMA.

This creates what Jacobson describes as a “circular” problem: Farmers don't engage with the RMA because their policies don't cover their crops, and the RMA doesn't expand to include more crops because farmers don't reach out.

The alternative is Whole Farm Revenue Protection, FCIP's lesser-utilized program that insures farms based on their historic revenue rather than yields. In theory, this program is ideal for diversified farms because it doesn't require unique policies for every crop, and farms with more crop diversity receive lower premiums. Beyond just accommodating crop diversity, this policy is designed to incentivize it.

However, the paperwork needed to show revenue can be just as prohibitive. Jeff Schahczenski, an agricultural economist, notes that the USDA contracts with a set of private insurance companies to sell these policies. And many of the companies require that farmers not only prove their revenue through tax returns, but also their sales history for the past five years and sometimes even include a detailed plan for projected earnings.

"It essentially failed because it's just too cumbersome," Schahczenski said. "Your average farmer says, 'To hell with this.'"

As a result, very few farmers actually use Whole Farm Revenue Protection. In 2021, just 1,934 policies were sold, insuring less than 1 percent of the 2 million farms in the U.S. Instead, many of the most climate-adapted farmers rely on crowdfunding through sites like GoFundMe in the aftermath of a disaster.

The Upcoming Farm Bill

While prohibitive to many farmers, FCIP's policies guarantee a revenue to major commodity growers. A recent analysis by the Environmental Working Group found that three-fourths of crop insurance payments went to four crops—corn, soybeans, wheat, and cotton—between 2001 and 2022. During this time, corn growers received over \$55.36 billion in indemnities, partially supported by taxpayers.

"We have made growing these few crops so riskless that there's no motivation for them to change what they're doing," Schahczenski said. "It is basically saying, 'We will support you to overproduce these few commodities at a public expense.'"

According to the USDA spokesperson, RMA plans to issue guidance in October stating "that NRCS Conservation Practice Standards will be recognized by agricultural experts for the area as considered Good Farming Practices. Therefore, the appropriate use of [those] standards will have no [negative] impact on federal crop insurance coverage." This could be a significant change, but it's not clear how it will play out on the ground.

Advocates also see the upcoming 2023 Farm Bill as an opportunity to reform the policies that sustain risky farming.

For instance, the Land Stewardship Project in Minnesota is pushing for a cap on insurance subsidies to the largest farms, while asking lawmakers to simplify the Whole Farm Revenue program, and reducing premiums to farmers implementing conservation policies. The National Sustainable Agriculture Coalition is advocating for a relatively simple fix to the Good Farming Practices: The RMA could recognize any policy supported by NRCS, the USDA's conservation agency, as a Good Farming Practice, to resolve the discrepancies within the agency.

These changes, advocates say, could help shift the crop insurance system so that it adequately covers existing farmers who practice climate-friendly methods—and doesn't prevent new ones from following in their footsteps.

To really reform the crop insurance system, farmer Doug Crabtree thinks there also needs to be a mindset shift away from policies designed to "maximizing short-term yield" above all else—a narrow view of risk that overlooks the climate and natural resources.

"To be a truly good farming practice, it has to be [done for] more than one year," he said. "Because things that are good for the long-term health of the soil and the ecology of the land are counter to what RMA and crop insurance companies recognize as good for any one particular crop." And that long-term health will be key to farming in an increasingly uncertain future.



Grey Moran is a Staff Reporter for Civil Eats. Their work has appeared in *The Atlantic*, *Grist*, *Pacific Standard*, *The Guardian*, *Teen Vogue*, *The New Republic*, *The New York Times*, *The Intercept*, and elsewhere. Grey writes narrative-based stories about public health, climate change, and environmental justice, especially with a lens on the people working toward solutions. [Read more >](#)