



Climate Change Is Walloping US Farms. Can This Farm Bill Create Real Solutions?

Although it seems like everyone in D.C. is buzzing about a “climate farm bill,” some of the most impactful changes, including crop diversification and shifting diets from meat toward plants, are barely on the negotiating table.

BY LISA HELD APRIL 26, 2023



For the past decade, Emma Jagoz has been stewarding and expanding a thriving organic farm that now spans 25 acres near Frederick, Maryland. At Moon Valley Farm, she grows a wide variety of vegetables that end up in CSA boxes and restaurant kitchens in Maryland, Washington, D.C., and Virginia year-round.

Increasingly, she has had to contend with extreme weather: early frosts threaten her fall crops. False springs have caused her winter crops to bolt too soon. Rain comes all at once and then not at all.

“Over the past 12 years, it does feel like the seasons are getting less predictable,” she said in early March at the Farmers for Climate Action: Rally for Resilience in D.C., where she held a hand-drawn sign decorated with beets and tomatoes.

As an organic grower focused on building healthy, carbon-holding soil, Jagoz’s climate activism may seem predictable. But the already-devastating impacts of more frequent extreme weather on farms, combined with calls for agriculture to reduce its greenhouse gas emissions, have now pushed farmers and farm groups across the political spectrum into the climate change conversation.

On a few key issues, such as paying more farmers to use climate-friendly conservation practices, farm groups that don’t always agree—including the National Sustainable Agriculture Coalition (NSAC), the National Farmers’ Union, and the American Farm Bureau Federation, a leading member of the Food and Agriculture Climate Alliance—are now in accord.

It’s no wonder: In the last round of reports published by the United Nations’ Intergovernmental Panel on Climate Change (IPCC), the world’s top climate experts warned of “a rapidly closing window of opportunity to secure a livable and sustainable future for all.” The reports confirmed what many farmers are experiencing firsthand: Droughts, floods, and wildfires are destroying crops and threatening livelihoods and food supplies in more frequent and severe ways than ever before. Increasing temperatures are also causing heat and water stress that directly impacts the productivity of both crops and livestock.

“If we don’t reduce our greenhouse gas emissions, the severity of those impacts will be greater with each subsequent year,” explained Rachel Bezner Kerr, the lead author of the food and agriculture chapter in the IPCC’s impacts and adaptation report. At the same time, agriculture’s emissions have been rising, especially when it comes to the extra-potent but shorter-lived greenhouse gas methane.

So, as negotiations around the 2023 Farm Bill, the country's most important piece of food and farm legislation, heat up, the question is: will it play a meaningful role in addressing and responding to the climate crisis?

Furthermore, can an unwieldy government bill, shaped by a bureaucratic system heavily influenced by the powerful agriculture lobby, really shift the food system toward a lower-emission, climate-resilient future?

"I would try as quickly as possible to shift subsidies and programs that encourage large-scale monocropping and high-input intensive farming to those that support a system that is more diversified and uses agroecological strategies for production," said Kerr, when asked about how a climate scientist might rewrite the bill. "That would require a big shift in where the money goes."

So far, however, the odds that the bill will bring about that kind of sea change seem slim. Based on the early negotiations and conversations, it looks like it won't move the needle on many of the things that would have the greatest impact: reducing meat (especially beef) in American diets, diversifying farms from coast to coast, and cutting food waste.

But there has been significant movement on incentivizing farmers to increase the use of practices that build soil health to both absorb carbon and ensure farms can adapt to changing conditions. Experts say, at this point, every small change is meaningful and the opportunity has never been greater—despite the disagreements in D.C. that tend to garner headlines.

How the Conservation Title Could Shape a Climate-Friendly Farm Bill

The conservation title is at the center of most discussions around climate in the farm bill right now, and it's the place where change is most likely to happen.

Currently, the farm bill funds a handful of programs that pay farmers to implement a wide variety of practices with environmental benefits. "These incentive-based programs that assist producers in raising the bar on their operations . . . represent a huge climate opportunity," said Ben Thomas, senior policy director for agriculture at the Environmental Defense Fund (EDF). "Producers are ready to engage and activate these policy solutions in a big way. We need to meet them for that."

Advocates and lawmakers are essentially proposing two things. First, they want to inject more money into the programs. During a March hearing, Terry Cosby, who leads the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS), told senators that conservation dollars from the last farm bill limited the agency to approving just 30 percent of farmer applications. In other words, many farmers who want to plant cover crops or hedgerows are being denied federal funding, and as a result might decide to skip it.

Second, advocates want the programs to prioritize funding practices that have clear climate benefits over other practices. In the Environmental Quality Incentives Program (EQIP), for example, practices like silvopasture, which involves planting trees and fostering healthy pastures that hold carbon, could be given higher funding priority over adding sprinkler systems, a practice that currently receives a significant share of funding. Progressive groups like NSAC also want lawmakers to change the rules so that industrial animal farms or CAFOs can no longer use conservation funding for things like manure storage.

The push to expand the pot of money and send funds specifically to climate-related practices already got a jump start with funding from the Inflation Reduction Act, which passed in 2022. The USDA started making that money available in February, but there's a chance that Republican lawmakers will divert the rest of the funds to other things during farm bill negotiations, despite the fact that nearly every farm and environmental group supports leaving it in place.

In addition to that extra funding, climate-centered conservation may get a boost from Representative Chellie Pingree's (D-Maine) Agriculture Resilience Act (ARA), which she reintroduced at the end of March. In addition to a laundry list of climate and food provisions—from research funding to renewable energy on farms—the bill proposes several changes that would fund more projects that reduce greenhouse gas emissions and sequester carbon. Supporters will try to incorporate as many of those items as possible into the larger farm bill.

The ARA would also increase the number of acres eligible to be enrolled in the Conservation Reserve Program (CRP), which pays farmers to stop farming less-productive land, thereby leaving the soil and carbon-holding plants undisturbed. Scott Faber, senior vice president for Government Affairs at the Environmental Working Group (EWG) says CRP is particularly ripe for reform. While it has the most potential of all conservation programs to sequester significant amounts of carbon in the soil, the benefits are often lost as soon as farmers' contracts end.

“A lot of the acres are being wasted, plain and simple, on 10-year deals,” Faber said. “Farmers grow grass and then plow it up and release all the soil carbon that may have built up back into the atmosphere.” One fix the ARA proposes is a pilot program for grasslands featuring 30-year contracts.

However conservation programs are improved, many groups say that to really make a difference, more contracts should go to the small, diversified farms that are often already implementing climate-resilient systems, but often have a hard time accessing the programs.

“We’re not going to be able to afford to do a lot of these long-term soil health practices . . . if the laws are written for large, conventional farms,” Jagoz of Moon Valley Farm said. “Right now, when I go to fill out the forms, they often don’t even make sense for farmers like me.”

NSAC’s members also want to make it easier for small farms like Moon Valley to get crop insurance, which pays farmers when crops fail, but which currently mostly benefits large, commodity growers. EWG and other groups want to link crop insurance to conservation practices in more significant ways, but other groups like the Farm Bureau oppose any changes that aren’t voluntary.

Addressing the Roles of Monocropping and Meat in Climate Change

Most farm bill programs were designed to keep large-scale farms that grow commodities like corn and soy in business. Research shows conservation practices like cover crops and reduced tillage do have measurable environmental benefits when applied on those farms, but Bezner Kerr said diversification is a more powerful climate strategy.

“Even since we submitted the [IPCC] report, papers have come out that strengthen the evidence for diversification as a central adaptation strategy, both in terms of economic risk and adaptation more broadly,” she said. Commodity farms that grow one crop over thousands of acres can be particularly vulnerable to climate risks, she said, because increasing pests or extreme weather events can wipe out an entire farm’s crops faster.

But aside from the tiny slices of the farm bill pie that go to local and organic agriculture, the vast majority of dollars will go to those larger operations through crop insurance, commodity support, and conservation programs, thereby discouraging diversification. Representative Earl Blumenauer’s (D-Oregon) Food and Farm Act is the one marker bill that proposes changing commodity subsidies and rewarding crop diversification, but it is widely viewed as politically impossible to move forward in D.C.

Not only is diversification unlikely, but about 90 percent of soybeans and 40 percent of corn are produced to feed animals raised for meat, dairy, and eggs. Those foods—especially beef— account for the vast majority of emissions from the food system, in the form of nitrous oxide emissions from fertilizer used to grow feed crops and methane from animal burps and manure. In fact, the evidence is clear that the single most powerful lever to build a more climate-friendly and resilient food system would be to shift American diets away from meat and toward more plants.

In March, 300 advocacy groups signed a letter urging members of Congress to include Senator Cory Booker's (D-New Jersey) Farm System Reform Act in the farm bill. In addition to stopping the construction or expansion of large-scale animal farms, the bill would phase out the largest of those facilities by 2040 and provide buyouts to help farmers who had contracts with big meat companies transition to more climate-friendly crops and systems.

“We’ve got to find a way to scale up plant-based production, including growing more pulses and oats and other ingredients and helping to share the cost of the processing facilities,” Faber said. “And not just because we need to make it easier for carnivores like me to occasionally get our protein from plants, but because it’s good for our farmers and it will create . . . rural jobs.”

But once again, conversations about cutting meat production are seen as politically toxic in farm bill negotiations and in D.C. in general. In 2021, despite the fact that the Biden administration’s climate plan failed to address greenhouse gas emissions from meat production at all, some Republican lawmakers and conservative media ran with a completely false narrative around the President limiting Americans’ meat intake. In March, the USDA predicted beef, chicken, and pork production will continue to rise over the next decade.

(To be clear, reducing the quantity of meat in American diets and cutting American meat production are two related but distinct issues because of the global nature of today’s food system. Some experts point to any reduction in industrial meat production as a climate boon, while groups like the World Resources Institute say that Americans should eat less meat, but that American production should not be cut because it is more efficient than production elsewhere.)

What could make it into the farm bill is research and programs that tweak the current animal agriculture system in smaller ways to reduce or contain emissions. While some groups are fighting against funding digesters that capture methane from industrial hog and dairy farms, for example, the Food and Agriculture

Climate Alliance supports more funding for digesters. And Thomas said that EDF is focused on funding research on and implementation of new technologies like feed additives, which may reduce methane emissions from cattle.

“There is going to be a lot more opportunity for reducing methane without completely changing the diet of every American,” said Thomas. “That’s what we’ve been focused on.”

Putting a High Priority on Preventing Food Waste

According to the climate action organization Project Drawdown’s calculations, the only thing that could reduce even more emissions than shifting to plant-rich diets is reducing food waste.

At the end of 2021, researchers at the Environmental Protection Agency (EPA) calculated that about 35 percent of the U.S. food supply is wasted, resulting in annual greenhouse gas emissions equivalent to 42 coal-fired power plants. That’s before the waste heads to a landfill, where it then emits methane, a greenhouse gas around 28 times more potent than carbon dioxide. And last week, the national nonprofit ReFED shared sobering news: Between 2016 and 2021, food waste in the U.S. increased by nearly 5 percent, to about 38 percent of the food supply. They estimate that 36 percent of the 91 million tons of wasted food went straight to landfills.

So far, Pingree’s ARA includes provisions to reform “best by” date labeling on foods to reduce at-home food waste. It also funds composting projects, programs to reduce food waste in schools, research on cutting food waste, and a national food-waste reduction campaign. In recent years, similar campaigns contributed to significant reductions in food waste in other countries such as the United Kingdom.

And unlike meat or SNAP benefits, food waste has historically been an issue that lawmakers on both sides of the aisle are able to come together on. During the last farm bill process, Pingree was able to get provisions into the bill to create the first full-time food loss and waste liaison at the USDA as well as a composting and food waste reduction pilot program. That program has since supported composting programs from Rhode Island to Alaska. Still, it has not been the focus of any farm bill hearings or negotiations to date.

In the end, there’s only so much money to go around, so tackling these big food-system climate issues will be a matter of lawmaker priorities. However, many of the people pushing more of those lawmakers to move climate to the top of their lists, are optimistic.

“I’m encouraged by the common denominators,” says EWG’s Scott Faber. “We’re no longer arguing about whether . . . our conservation programs should reduce greenhouse gas emissions. We’re no longer arguing about whether farmers are a source of greenhouse gas emissions. You hear some [lawmakers] saying, ‘Well, we don’t want the conservation title to become a climate title.’ To me, [the fact that we’re having] that conversation is a sign we’re headed in the right direction.”



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