

Crop Shoot: Farmers Caught Up In Policy Turmoil

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Ariana Brocious: Hey, Kousha.

Kousha Navidar: Hey.

Ariana Brocious: So I spent five years living in Nebraska, right?

Kousha Navidar: Mm-hmm.

Ariana Brocious: And I moved there for a job having never even visited the state before. So it was all new to me. Even though I wasn't an agriculture reporter, my environmental beat did overlap with ag a lot and being in such an agricultural state, I just learned a lot about it through daily life. And in thinking about this week's show, there's one distinct memory that came to mind from probably my third or fourth summer that I was living there. So Kha, are you familiar with the term corn sweat?

Kousha Navidar: No. It sounds tasty.

Ariana Brocious: No, it's the opposite.

Kousha Navidar: No, it sounds icky. What is it?

Ariana Brocious: Yeah, so basically, uh, certain times of the summer, late in the summer, the humidity in parts of Nebraska just really ramps up and it's because so much of the state and we're talking millions of acres is planted with this one crop and corn is doing, its like usual evapotranspiration, which is what plants do, but it just really amplifies the humidity in the atmosphere.

Kousha Navidar: Okay, so the corn itself is making the air more humid?

Ariana Brocious: Yeah, because the moisture is leaving the plant going up into the atmosphere. It's evapotranspiration, but it also makes you feel sweaty because it's humid.

Kousha Navidar: Okay. Yikes.

Ariana Brocious: To me it was just like a distinctly, a distinctly Nebraska thing.

Kousha Navidar: Nebraska thing. Yeah.

Ariana Brocious: Yeah. And it struck me because apart from feeling really gross and sticky, I mean, I don't know. I'm better adapted to arid environments. Are you a fan of humidity?

Kousha Navidar: Oh, yeah, I can live in, I used to live in Miami, and uh, yeah. Enough said, I, I, I get you. I'm down with the sweat.

Ariana Brocious: Yeah. I'm not. I'm not. And so, to me though, it's a marker of how much we've changed the landscape through agriculture because Nebraska used to be prairie, these deep rooted grasslands that held lots of carbon in the soil, you know, uh, very diverse and so forth. And now there's almost no prairie left. It's just agriculture and the scale of agriculture, particularly commodity crops like corn and soybeans is really massive. But getting to today's show, that also means that when you make changes on such a scale, you can have a big impact.

Kousha Navidar: Yeah. Word. Well, I'm excited to learn even more today about all the ways that agriculture is transforming our environment and how our environment is kind of also transforming agriculture.

Music: In

Ariana Brocious: I'm Ariana Brocious.

Kousha Navidar: I'm Kousha Navidar.

Ariana Brocious: And this is Climate One.

[music change]

Ariana Brocious: Agriculture is one of the biggest climate levers - meaning that if we made big changes, we could really reduce emissions and improve our climate prospects.

Kousha Navidar: Right. Agriculture is directly responsible for 10 percent of U.S. greenhouse gas emissions, and the non-partisan Congressional Budget Office [estimates](#) emissions from the agriculture sector will modestly increase over the next 30 years.

Ariana Brocious: And climate change is making it harder to make a living as a farmer. [music cue]

The National Farm Bureau reports farmers lost more than **20 billion dollars** to weather disasters in 2023 and again 2024. Some of that was covered by federal crop insurance, but not all of it.

Kousha Navidar: Droughts are longer, storms are more intense and unpredictable. And that unpredictability will likely only continue as we keep warming the Earth.

Ariana Brocious: Whether you're talking about big-scale commodity farmers growing corn,

soybeans in the nation's heartland, or small-scale vegetable or fruit growers selling their produce at local farmer's markets, farmers have to make business decisions year in and year out.

Kousha Navidar: They have to make the math work: how their costs – seeds, fertilizer, fuel, equipment, labor – match up with expected returns from sales and maybe support from crop insurance or subsidies.

Ariana Brocious: So as I see it, because the margins are so narrow, federal policy carrots or sticks, in the form of subsidies, grants or regulations, can really make a difference in shifting behavior. Especially when it comes to climate resilience.

Kousha Navidar: Yeah. And while the Biden administration worked to get more money and resources to farmers, the Trump administration is doing the opposite. They continue to slash [programs](#) that help reduce emissions, feed people, protect farmworkers and animals and sensitive lands. And the administration's tariffs and trade wars have affected both the cost of machinery and income received from major crops.

Ariana Brocious: So today we're digging in – haha – to what these changes will mean for our national food system.

Kousha Navidar: We'll hear about how farmers are weathering these impacts. And we'll hear from one farmer about building resilience regardless of federal policy.

[music change]

Ariana Brocious: Lisa Held is a senior staff reporter and contributing editor at Civil Eats, an online news outlet covering food, farming, labor, climate, immigration and more. She's been diligently covering all the news coming out of the Trump administration as well as national agricultural stories. I asked her to unpack the big trends in climate and agriculture she's reported on in the last year.

Lisa Held: The Trump administration has started as sort of complete purging of climate from federal policy that ranges from the dismantling of inflation reduction act subsidies for renewables, and directing agencies to prioritize increases in fossil fuel production to pulling out of climate treaties. The reversal of the endangerment finding, I mean it's, it's a full on kind of comprehensive rollback of climate policy and on its face that. Doesn't sound like food or agriculture policy. But if those policies lead to higher greenhouse gas emissions, which they're most certainly going to do that will have massive consequences for farmers. So one story I reported this year looked at that issue pretty closely and, one of the experts from the IPCC report, uh, that came out a few years ago talked about how, overall agricultural productivity, so how much food we're producing per acre has been reduced from what it would've been with, less or no global warming. And then there was also a study I covered that shows this kind of vicious cycle. So reduced productivity as yields decline. Farmers need to clear more land to grow food. As more land is cleared for farming emissions increase even more because forested land sequesters much more carbon than cleared land. There's also just tons of evidence now that shows extreme weather events are harming food security and nutrition.

Ariana Brocious: So I just wanna recap quickly 'cause what you're talking about are the implications of national climate policy for agriculture, as you said, that aren't even specific agriculture policy choices. This is just climate policy leading to higher emissions. And that's making it harder to be a productive farmer because of all the impacts that stem from higher emissions, warming, climate, et cetera. So basically it's just becoming harder. Climate change is making it harder to be a farmer.

Lisa Held: Exactly, and, and that can show up in, in many different ways. The obvious ones are when we have extreme weather events that have been, you know, made worse by climate change. Like we saw, the floods in North Carolina that really devastated farms. We did a lot of coverage of that, um, on Civil Eats. but there's more subtle things that we don't see day to day or don't get reported. I, for instance, I talked to this one farmer in Colorado this year, Steve Ella. He grows organic peaches, pears, apples, and his production relies entirely on snowpack for water. and you know, the last few years, he's had less and less water because the snowpack, has decreased. They've had some bad drought years, and so he told me he started taking acres of trees just out of production. It was the only solution he could see was if there's gonna be less water, I have to just grow less fruit. So farmers are making decisions about what they grow, what it's possible to grow based on how the climate is changing.

Ariana Brocious: Right. Okay. So there's that layer, and then on top of that, there's been this wholesale dismantling of a lot of the support systems for farmers and agricultural producers, so USDA reorganization, the ending, or defunding a lot of programs that either pre-existed the Biden administration and maybe got extra funding. Or were new under the Biden administration, there was a lot in the IRA and other things that kind of helped climate sustainability, climate resilience. So you've covered a lot of those changes and there are many, but could you highlight, one or two that you think have been especially a harmful or, or have really changed the sort of landscape for farmers?

Lisa Held: Yeah, there have been so many changes at the USDA, first I'd say, um, just the general reduction of staff is a really big deal. There was just a report that came out in December that showed more than 20,000 employees were cut in 2025, which is about a fifth of the USDA workforce. And, you know, USDA says that most of those people left voluntarily, but I've talked to a lot of employees that have told me they, you know, took that offer to leave because other people were being fired and they felt that, um, they were gonna lose their jobs potentially. And so it was a better, better choice and, and those employees that have left, uh, we're in all 50 states and the biggest losses were at the Forest Service, which helps with wildfire prevention. And then, the, uh, Natural Resources Conservation Service. They lost about 2,700 employees, and, and those people that work at NRCS are the boots on the ground in states helping farmers implement conservation practices, walking ranches with farmers, um, who were, you know, putting in fencing to do better grazing practices or figuring out ways to reduce runoff on their farms. And a lot of those people are, are no longer there. So that's a, that's a big deal. it's one of those things where even if conservation funding for, for practices that have climate or other environmental benefits continues to flow from the government, it can be harder for farmers to access that funding or to, understand how to implement it on their farms without that kind of on the ground support.

Ariana Brocious: Yeah, it's a lot. There's a lot of complicated steps. Speaking broadly, people who grow commodity crops, so corn, soybeans, wheat are faring better right now than those who grow fruit, nuts, vegetables, and a lot of those commodity crops go to feed livestock, which then, you know, people eat but not feed people directly. So this has real implications for our food supply, right?

Lisa Held: Yeah. In general, the federal government has always supported, commodity crop farmers more than it supports the growers of, um, what they call specialty crops. You know, fruits and vegetables -

Ariana Brocious: Which is what we eat.

Lisa Held: Yeah, right, exactly. But I, I think, um, one of the things that we've really been covering in the past year is a lot of the funding that had started to kind of increase over the Biden

administration in terms of like small farms in regional food systems, growing fruits, vegetables, pastured livestock. The USDA under Trump really threw that group of farmers into really into turmoil over this past year. They paused all of the grant funding to really, that was really to all farmers when, when they first came in, in, in January, um, to review contracts. But I think it, it impacted these small farms more because they had gotten this kind of infusion of support during the Biden administration, and so then they had started all these projects and maybe they were in year two of a five year project and so they had invested money and resources and time and, you know, then all of a sudden they were basically cut off from that support that they had been expecting. And so that really hurt farmers and, and the, the groups that support them, pretty significantly. And, and a lot of those grants, the money was released later, but some of the, the farms that were caught up in that, like, it, it doesn't necessarily mean that then everything just went back to normal. Like I, I talked to this one farmer who grows organic blueberries in Maine and he had a grant that essentially would pay for part of the cost of these wood chips that they put on the fields to help the blueberry plants deal with rising temperatures in Maine. It's much hotter in Maine now than it was years ago because of climate change. That money was paused and then by the time it was unfrozen months later, it was too late in the season to then put them down. And because of the way, the system that he has designed worked, he won't be able to do it for another two years. So who knows what will happen within those two years to his plants as temperatures continue to rise, right? And then a lot of other programs were just fully canceled. There was a big bucket of money, about a billion dollars to the local food for schools and food banks program that was cut. the farms that were benefiting from that program were small farms, growing vegetables, fruits, they were getting access to bigger markets that they hadn't had access to before, like schools, which you know, is kind of, people describe it as a win-win 'cause it's like getting more fresh food into schools for kids. And then also supporting these farms that are growing those products.

Ariana Brocious: Yeah, I mean, the benefit of having like, yeah, local carrots, or apples or whatever into school lunches, that's just seems very clear as a benefit. So what does all this mean for an average American who's doing their weekly grocery shopping right now?

Lisa Held: That's a hard question. The reality is that every American relies on farmers, to grow the food that we, that we buy in grocery stores. I think it's, in general, it's just getting harder for farmers to grow food because of climate change and because of federal policy changes. One thing that we know is that, climate change has definitely contributed to a rise in prices. So, I think as firms deal with increased, challenges related to climate change. It's pretty clear that prices for food will, will rise.

Ariana Brocious: Yeah, and there's even been things like, I know you've covered a lot of the SNAP benefits cuts, SNAP are food stamps. And some of those funds can be used at things like farmer's markets or community supported agriculture markets or things like that, which is buying from local growers. So if people have less access to that, that's also less access to healthy local produce.

Lisa Held: Absolutely. Yeah. The changes in the, the one big beautiful bill, which we've covered extensively are gonna lead to millions of people, estimated millions of people, no longer qualifying for SNAP benefits and. A lot of SNAP funding flows through farmer's markets, and a lot of farmers have benefited from that. There's just gonna be less purchasing power essentially, um, because of the cuts to SNAP that we've seen this year.

Ariana Brocious: Right. So the Trump administration's trade wars and tariffs have made life harder and more expensive for American farmers. Farm equipment is more expensive. Things like steel tariffs are affecting that. And you know, China, for example, stopped buying soybeans from the US. That's huge. They've been our biggest customer. There's been some changes in the last few months around this. What's the status of those trade agreements now and do you think there'll be lasting

harm to farmers that plan to sell to China?

Lisa Held: It's really complicated. I did some coverage of soybean farmers earlier this year, and it was kind of right before the administration made a deal with China. So, farmers were really struggling because they had basically completely lost their foreign markets for soybeans due to the trade war caused by the Trump administration's tariffs. So, you know, people were saying like they harvested their soybeans and they had nowhere to send them. You know, the timeline with farming is long. So you don't, if you don't know, someone's not gonna buy it a year from now. Like you, you need to know that the year before right. When you're planting not, not when you're harvesting. So there was a lot of disruption. Um, they did, um, make a trade deal with China and, , purchases did resume. but you know, during the first Trump administration, the tariffs were not as across the board. It didn't get as much attention, but it did really, really impact markets for, for soybeans. And actually there's a lot of data that shows that since then, the market never fully recovered. So more purchases of soybeans shifted to South America. China started buying from other people, other countries. You know, versus the US and, once the, it was resolved, they started buying again from the US but the proportion had still shifted and has never gone back to what it was.

Ariana Brocious: Yeah, you're based in Washington, DC and I'm curious what you're hearing from different agricultural groups in the capitol, who's frustrated, who's pleased. You know, with all these things that have been happening that we've been discussing.

Lisa Held: Yeah, it's, it's kind of a weird situation in DC I think to be honest, there's a lot of fear. The big farm groups like National Farmers Union or the Farm Bureau, they're quieter than they have been in the past. When it comes to the smaller farm groups like the National Sustainable Agriculture Coalition, which represents really small farm groups all across the country. They're really a big power in DC on that front. I think like a lot of the groups that they represent are really scared because they've lost a lot in the past year and they're trying to advocate for the farmers that they work with, but also, keep attention away from their efforts because for instance, they have lost a lot of funding because of the administration's stripping of what they call DEI language.

Ariana Brocious: Diversity, equity and inclusion.

Lisa Held: So, so, the USDA canceled a lot of grants this year, a lot of farm grants to farmers and farm groups based on the fact that they said it had this diversity, equity, inclusion language in there. And they've added into their grant contracts that, like if you do anything that they deem to be kind of in line with equity, DEI, if you mention the word equity, if you, I mean, that's a slight exaggeration, but not really. Like, it's pretty, it's pretty strict so I think a lot of groups are, are kind of. In this place where they're thinking like, well, we don't wanna be as loud as we were in the past because, you know, we don't wanna draw attention to our work and then have the administration say, oh, whatever you're doing over there, you know, you're, you're helping this certain group of farmers you're working with historically marginalized groups and we're gonna consider that DEI and so we're gonna cut your funding.

Ariana Brocious: And I just wanna point out that the vast majority of American farmers are white men. And so to, there are a lot of efforts that have tried to expand the diversity to get more women farming, to get more people of color farming, black farmers that were, that lost access to their land or funding, decades ago having some of that restored. So a lot of those efforts are being canceled now.

Lisa Held: And not only are they being canceled, but one thing that is kind of crazy when you think about it, is, the last administration came in and said that they were gonna make equity a priority across the, across the federal government, including at the USDA. And they, they started this equity

commission. They said they were gonna infuse equity for the reason that you just laid out, because they said, you know, historically, well now most farmers are white men and a lot of the resources have gone to those people and we have this demonstrated discrimination against groups throughout history at the USDA, black farmers, other groups. And so they said, we're gonna try to just correct a little bit of that. And so they told farms and farm groups that when they applied for grants that they should put in their application. If they were going to try to reach historically marginalized populations, try to, you know, encourage women to get into farming, try to really reach tribes that hadn't gotten support before. And now those groups that were told by the federal government, put this in your application, you'll get a higher score because we're trying to correct this wrong. They're the ones that are losing funding for doing that. Not that they wouldn't have done that work anyway, but, they were told directly by the government that that was something that was a priority and, and now are essentially being yeah, penalized for that.

Ariana Brocious: Yeah. So what are you watching in 2026?

Lisa Held: Oh, wow. Um, so much happening in 2026.

Ariana Brocious: A short list.

Lisa Held: We've already had the release of the new dietary guidelines which come out every five years. It's not like a big deal that they came out, but they are different this year and actually have real climate implications because the administration is kind of moving away from the recommendation that was in place before to focus on plant-based sources of protein and kind of moving toward emphasizing animal protein, especially beef and dairy, which have the largest climate impacts. So I think there's gonna be a lot of, a lot more to say about those dietary guidelines. And, and we just started kind of digging into the, the report and the science that was used. So last year, we covered the Trump administration really closely as they came in and said they were gonna make lots of changes really quickly. And they did that on almost every front, including food and agriculture. And so we were a lot of the time just kind of trying to keep up to, to keep track of what was happening. And you know, to some extent who was impacted. But I think this year. We're gonna see more of those impacts really coming to the forefront because now there's been some time and we're gonna be able to do more reporting on, um, how people on the ground are impacted. So yeah, I think it'll be a lot about just following what the impacts of this administration's policies have been on the ground and, and really trying to keep people informed about that.

Ariana Brocious: Yeah. Well, I look forward to seeing more of your reporting this year keeping an eye on things Lisa Held is the senior staff reporter and contributing editor at Civil Eats. Thank you for joining us on Climate One.

Lisa Held: Thank you so much, Ariana.

Music: In

Kousha Navidar: Coming up, combining agriculture with solar power production can be a win win now and in a climate-altered future:

Byron Kominek: I'm a shade peddler. Having more shade when it gets hotter and drier is gonna be a benefit for all of our society.

Kousha Navidar: That's up next, when Climate One continues.

Music: Out

Kousha Navidar: This is Climate One. I'm Kousha Navidar. I learned a lot about the current state of commodity farming from our next guest, John Bartman. He's a fifth-generation farmer in Illinois who mostly grows soybeans. He is a big advocate for regenerative agriculture, using techniques like cover crops and no till - we'll learn what those are in a second - to help preserve the health and carbon sequestration ability of the soil on his land.

John Bartman: We try to mimic nature in those various respects, like trying to always keep the land covered, always keeping a crop growing all the time. Literally, photosynthesis means making life from light. Okay? And what happens is that because we have the sun, it's absorbing its rays, the plants through photosynthesis are able to give that energy down into the roots of the plant, and those roots then secrete carbon and there's a wonderful symbiotic relationship between all the microbes in the soil and those microbes then take up nutrients into the plant and sometimes even plants that when they're we're in a diverse growing environment, those plants, their roots join and they literally share nutrients back and forth. And the cool thing about it is if you do it right, you don't need any synthetic fertilizer.

Kousha Navidar: Why don't you need the synthetic fertilizer?

John Bartman: Because in one teeny scoop of soil, there are more microbes than there are humans on the planet.

Kousha Navidar: What was your journey like to starting to use these regenerative agriculture techniques? Like how did you find out about it? Was it an easy transition for you based on what you had done before?

John Bartman: Great question, and the first thing I'm gonna say is before a farmer can feed the world they have to be profitable.

Kousha Navidar: Sure.

John Bartman: So that's the most important thing. And that's a real hangup for a lot of people for trying to go down this journey because our, our, our margins are so narrow. And for me, I really got started farming in 2012. That was also the year of the big drought that, the last major drought that we had, and my family would grow continuous corn on corn for about 20 plus years. And in 2012 we had this terrible drought, and I used the same methods that we had used for years and the drought was so bad we only harvested three bushels to the acre for corn, where our average was 150 bushels to the acre. And the key during that time period was I had crop insurance, which was a wonderful thing that kept me in business, especially as a young farmer. But we didn't harvest everything. And because I learned that there was a dairy farmer who was desperate for feed during that time because commodity prices were pretty high because of the drought, he couldn't afford to buy any feed for his livestock. So I had him come out and he chopped off all the corn and he was able to feed his livestock. And I was really concerned about the amount of nitrogen that I had applied in that field. And so I did some quick research on what to do, and I learned that if you planted a, a cereal rye cover crop, it would hold onto that nitrogen. It wouldn't allow it to drop into the groundwater. And, and I actually had talked to the dairyman about, and he said to me, John, if you plant that cereal rye, I'll buy it from you. And I was just like, this is the right thing to do. I'm gonna help out a neighbor and I'm gonna help out the environment. So we went, we planted cereal rye, and it was beautiful. It was just a great crop. It was lush, it was green. And so the following spring, he harvested that cereal rye. He, he chopped it and baled it. I was able to make a little bit of money. I kept a dairy farmer in business and that kind of got me down this regenerative journey of doing the

research. By using these techniques we're literally at the point, Kousha, on some of these fields where we're only putting about 25% of the amount of fertilizer that my neighbors do. And that's the whole reason why I'm, I'm still in business to this day.

Kousha Navidar: Wow. Yeah. There's cost savings there as well.

John Bartman: Yeah. And, and it's also the environmental benefit, right? I'm not taking in phosphorus from Russia or Belarus. I'm using everything that's locally. I'm trying to get as much as I can by using these diverse systems of cover crops that can bring nutrients back into the soil.

Kousha Navidar: Let's talk about the federal government's role in all of this. 'cause there are a ton of programs at the federal level that have been in place for decades to encourage voluntary conservation measures by paying farmers to do things like leave a, a field fallow, which for listeners, uh, I, I learned about it just before it, so It's not like I'm an expert, but field fallow is where you give the soil a breather for a season. So is there, is there a conservation measure or two supported by the federal government like that you've participated in?

John Bartman: I have never gotten any money for conservation from Uncle Sam, and it's not that I haven't tried, but and for the most part, the people that do regenerative agriculture do it out of love. But it's also out of necessity too, that we look at input costs. Dealing with the federal government, especially before the the Inflation Reduction Act money was that it was a five year commitment to go into these programs. And the majority of farmland that farmers use, we rent, and many of them are one year lease, maybe a two year lease, but oftentimes they wanted a five year commitment. So right off the the bat, we aren't eligible to go into those programs. and that's why I was a really big fan of the Inflation Reduction Act because it opened up what was called the Climate Smart Program, and that enabled farmers like me to work with private industry and private industry would pay us for using these practices. And in return we would sell them our grain and they would label it as climate friendly or climate smart.

Kousha Navidar: So let me step in for a second just to give listeners some context. This was a Biden administration program, \$3 billion. The Climate Smart Commodities Program, like you said it, it paid farmers to do a whole series of practices that had benefits in terms of greenhouse gas emissions or carbon sequestration. It also gave farmers a new opportunity to market their products. Can you tell me a little bit about the practices specifically that they were encouraging?

John Bartman: There, there's three basic practices that also mimic regenerative agriculture. The first one being keeping the soil covered and keeping a plant growing at all times, which is where cover crops come in. For people that don't know what a cover crop is, that's a crop that we grow after our cash crop. and those crops will continue growing through the winter, and they're continuing to sequester carbon. So that was one way. The other practice was nutrient management, which is basically soil testing, making sure that you're putting the right amount of nutrients on as opposed to just throwing out some random formula. And the last thing was just trying to not till minimum, till or no-till, like I do, which is literally just planting the seeds in the soil as opposed to just coming in with a big plow and kicking up all the dirt and allowing the carbon to release into the atmosphere.

Kousha Navidar: Well, the Trump administration canceled the smart program, and rebranded it. How has that affected your work and other farmers that you know?

John Bartman: It was very disastrous for me. I was very much a victim of the Doge program. Were really counting-

Kousha Navidar: And that was the Department of Governmental Efficiency. Just for listeners, from their perspective, streamline.

John Bartman: Yeah, that was Elon coming in with his chainsaw. So what they did is they put a freeze on everything, and they basically said that even in January and February that these programs weren't gonna be continued. We weren't gonna be paid. Well, the majority of my land, about 900 acres today, was enrolled in these programs and that was a governmental contract and they weren't fulfilling that contract. I was counting on that money to be used for this year's crop that I would use that to pay my rent, and I had sat with down with my banker. They strongly encouraged me to enter into the climate smart program because it, it works and, the other beautiful thing about it was that my grain would be worth a premium. So I was counting also that this year that my corn would be roughly worth a dollar more a bushel. And they weren't paying us. They upset me so much that I just decided that I have to stand up and I need to do something about this. I need to let the world know. So I just sent out a bunch of press releases and thankfully Farm Aid was terrific too, and they helped give me a voice as well about these issues and these problems. And eventually we did apply enough pressure that thousands of farmers finally got paid thanks to these types of efforts of letting Congress know how out of line the Trump administration was during that time period. And what was really frustrating for this year is that they said that the program was gonna continue into 2025. Towards the fall of 25, right before the harvest, they changed the rules on the program and basically they made it so cumbersome that farmers couldn't participate in it. So once again, I was looking at 2026. I was counting on the funding for that. Well, that's not gonna happen now.

Kousha Navidar: And I think for you as a, a business operator, you think about tariffs, you think about canceled contracts or programs for compensation for good practices. What gives you heartburn at night. In terms of the way the administration is navigating its farming policies right now, does one thing stand out more than others that gives you heartburn from the way you do your day-to-day practices?

John Bartman: Just thinking about makes you wanna -

Kousha Navidar: Is that a separate podcast entirely?

John Bartman: Yeah, that's, that's, you Pepto to sponsor that one because that's plenty of heartburn for that one. I mean, everything, I hate to say it, but nearly everything that they've done has just been so detrimental to American agriculture this year and it's been so detrimental for the environment. I hope my friends understand with this trade war going on between China and the United States. The real winners have been South America and the real negative consequence is the Amazon Rainforest. It's the deforestation of the Amazon rainforest that's going on because China learned from their first trade war that they can't count on the United States for feeding them. And as a response, Brazil has gone from 80 million acres of soybeans to 120 million acres of soybeans, and they continue to grow more and more every year. Folks, that's coming from the Amazon.

Kousha Navidar: John, you know, when I, when I listen to you speak, I hear conviction, I hear a clear sense of, a critical view of the current administration, and of course, you know, farmer. It's such a general term. There's a whole spectrum of people that are in this vocation, so it's difficult to generalize, obviously, but I'm hoping you'll indulge me when I ask from your perspective of a member of this wider community, what's the general sense among the agricultural community for how the current administration is working out for them?

John Bartman: The row crop farmers are very frustrated right now. I, I wanna say this. There's so much flack that people are giving farmers right now. They think that every farmer supported this president. But not every farmer voted for him but what this administration is doing is just

detrimental to everybody.

Kousha Navidar: John Bartman is a fifth generation farmer from Illinois. John, thanks so much for joining us on Climate One.

John Bartman: Absolutely.

Ariana Brocious: John Bartman gave us a look at the world of commodity or row-crop farming, which comprises a lot of the industry in states like Iowa, Nebraska, Kansas, Illinois, Minnesota, and so on. But there are many farmers who grow crops on much smaller parcels, like Byron Kominek. He's owner and manager of Jack's Solar Garden, an innovative research site for agrivoltaics in Colorado exploring the benefits of combining solar panels with agriculture.

Byron Kominek: My family has a farm here in, uh, Longmont, Colorado, 24 acres. It's been in my family since 1972. We mainly been growing hay for a long time, and hay in our farm doesn't pay the bills, and we needed to figure out what else is possible on our land.

Ariana Brocious: Five years ago, you set up a 1.2 megawatt solar array on part of your family farm. It produces enough power for about 300 homes and under the panels you've been growing vegetables and herbs. Now you're adding some berry bushes or changing to berries. What spurred you to combine solar production, photovoltaics, and agriculture?

Byron Kominek: Coming from a background as an environmental engineer and being interested in natural resource management from my time overseas. I was keen to see, well, like what, what, what's something more innovative that we can do and learned more about solar energy, learned about the community, solar garden legislation in Colorado that would open up opportunities for someone like me to own and operate and put electricity back into the grid. Learned about Xcel Energy, our local utility's program for being able to create a community solar garden and put the power back in. So that was the opportunity to create some additional funding for our family of having that solar array. And when I pitched the idea to my family, my dad was on board 'cause he said, okay, great, we have a better revenue generating opportunity. And my mom who owns our farm says, but what about the farming. What, what about our land? What about the heritage here? And so she wasn't overly keen on just the solar side and then through some of her own investigations as well as talking with folks at the National Renewable Energy Laboratory and the University of Arizona learned more about agrivoltaics that there, there's this possibility they had of a bunch of pilot projects and were interested in seeing something larger. I thought, what a wonderful way for our family to keep that heritage of our land, create a better income for our family farm so that we're not putting money into it, we're actually getting a little something out of it. And also just being able to provide a better societal good. Like why not if we can do better for our society with the space that we have.

Ariana Brocious: Yeah, it does sound like, a pretty successful project because as I'm learning more about agrivoltaics, I'm just kind of struck by, it's like a symbiotic relationship really. The panels can shade and protect the plants, reduce the need for water, right? And then vice versa, the plants can have a positive impact on solar production. Can you just quickly kind of break down that relationship for us?

Byron Kominek: Yeah. it can be complicated depending on what style of solar array you design, but in, in simplicity, the solar panels create clean energy goes back into the grid. You can sell that electricity, it make some money off of it. As for agriculture, all of agriculture needs sunlight, but here in Colorado and western parts of the US and where it gets hot and dry, there's just too much sunlight sometimes. And what we've learned from our researchers over the years, a lot of the

vegetation really only uses sunlight for the first few hours of each day, and then it goes dormant for the majority day, even no matter how sunny it is. If it's too hot, the plants can't photosynthesize, and so they're just dormant for the most of the day, and then maybe the last hour or so of the day they, they switch back on and continue photosynthesizing. So having some additional shade on the ground is not that bad. It can actually be beneficial to select different types of, of vegetation as well as livestock, and people that are working within it.

So our panels, they rotate throughout the course of the day. They, they start off facing east, and so then you have shade on the west side. Midday, they're flat, so the shade is directly underneath the panels. And then, then in the afternoon they're facing west. And so then the shade is on the east side on our property. The sun and shades cycle over the field throughout the course of the day, nowhere it gets full sun, nowhere it gets full shade, and it provides this new spectrum of microclimates across the solar array where we can learn more about what variety of what crop does best in which of those different micro climates. And if we do well at it and others do well at it too, we can slowly figure out which varietal does best in which of these, and so then we can optimize its growth for the long term so that we can have a better opportunity for, more economic gain off of the agricultural activities there.

Ariana Brocious: Yeah. As you've been there working on the land and seeing this experiment in real time, there's also been ongoing climate impacts, you know, globally. So what have you experienced and how has that affected what you're doing, with these, this agrivoltaic project?

Byron Kominek: It's hotter and drier in Colorado. I think folks know that we have water issues out here, and you can imagine that water prices are increasing and they will likely continue to increase. So figuring out what type of vegetation that we can use that would require less water and also less, less labor costs for it, because labor costs are also rising and over the past five years, we've been working with a, a nonprofit organization that's been cultivating vegetables underneath our solar panels. Last year was the last season for it. Next season we are moving into raspberries and blackberries, as you mentioned, but we will continue to have also a grassland underneath, at least an acre and a half of the solar array that we work with folks at Colorado State University and learn more about how insects are in that area, how the, the, uh, C3 grasses in that area grow. We also have a herb garden where we have a local herbalist that works on about a fifth of an acre, So just trying to figure out what, what else is possible? How do we create food or herbs or other benefits for our society out of the space that would otherwise be left bare?

Ariana Brocious: So you view agrivoltaics as a form of climate adaptation. Why is that so essential?

Byron Kominek: Climate change is happening. A lot of communities around our country are not going to be able to do much about stopping it. That's at a federal level. That's at a global level. What our local communities can do is figure out how do we adapt to it. In hotter and drier areas, how do we create more shade, be able to save more water for our community, save more water for our crops, and still be able to cultivate crops and have livestock in those communities? Agrivoltaics or simply having solar panels above agriculture is a means of adaptation. If we're gonna be hotter and drier, then we need to have more cool spaces where we can still grow these things. Over the past handful of years, I've been noticing 105 Fahrenheit hitting my farm on a at least once, I should say, during the middle of the summer. And back in the nineties when I would come out here as a kid, it like it would max out around 95 Fahrenheit. Right? And that was considered hot. So I could imagine in another decade or so that we might hit 110 Fahrenheit day and what is going to grow on that day? Like what is gonna survive that type of heat in our climate where we are not accustomed to that? Having additional shade on the ground that can reduce overall thermal temperatures in this space is going to help livestock survive, it's gonna help vegetation thrive in this area where others out in the open, won't be able to. I'm a shade peddler. Having more shade when it gets hotter and drier is

gonna be a be for all of our society.

Ariana Brocious: So you offer free tours to Colorado government officials to show them your project, and also talk about how land use code and regulations can help support projects like this. Have those tours, has that education helped advance agrivoltaics projects around the state or land use changes that would make it easier?

Byron Kominek: I think so. We've had our governor Jared Polis come out and signed two different bills about agrivoltaics on our farm. We've seen other agrivoltaic systems start popping up across Colorado since we were built. I would say a number of them would've been somewhat inspired by us. We hear about other projects around the country that were inspired by what we do. I get phone calls from folks telling me about what projects they're working on, the, the different various questions that they have, and try to help them out, figure out what's possible for their area and to really consider like their own local situation and not just try to do it exactly how we've done it, because it won't work for them. They gotta figure out for themselves.

Ariana Brocious: The Biden administration put more funding towards helping farmers invest in solar arrays with grants and loans via the Rural Energy for America program. The Trump administration has rolled back that effort, changing the program to prevent funds from being used on certified crop land and preventing it from being spent on solar panels made in China, which is where many, many solar panels come from. How do you think these changes will affect the incentives for farmers to, to put more solar on their land?

Byron Kominek: So putting on my private hat, it's interesting that a party that does not favor federal government helps to reinforce it by removing the ability of the federal government to actually provide any goods and then showcases how the federal government doesn't do anything for people. I think it does sow the seeds of mistrust in the federal government that will extend beyond the Trump administration into future administrations, which is really unfortunate. Like governments were built over the past thousands of years in societies that have transformed beyond, just having oligarchs to ways that you can have better support for people. And when, when we create mistrust in that, then we go back to a time when we have oligarchs, which is unfortunate. And so then that means we have big farms that control everything as opposed to lots of small holders. That has been a challenge with agriculture in the United States since probably the 1950s.

Ariana Brocious: In reflecting on these changes that the Trump administration's putting forward, they're specifically calling out disincentivizing this, this money, these funds going to places where there is certified crop land, viable crop land. Those are kind of the terms they're using. You made the point when we spoke before that the huge benefit of agrivoltaics is that you are doing two things on the same property, right? So you're still cropping that land, you're still using it for agricultural purposes as opposed to a regular solar array where it's just barren land underneath and you're getting the solar benefit from putting the panels on top. And so do you think that agrivoltaics will still be able to kind of skirt these rules or that people will do it anyway because it does give them that double benefit?

Byron Kominek: It depends. probably larger ranchers that have additional funding that have a lot of head of cattle in feedlots may be interested in doing this on their own because they have the funds to take care of it, and they see the benefits from having shade available for their cattle during the hottest parts of the summertime. And so instead of losing a few cows each year to heat stroke. Now you have shade for your animals during that timeframe, and so you'll keep them. And so that can help out with covering the additional costs maybe for elevating the panels and making it more secure for cattle within that space. When you look at, , uh, Yuma or other parts of California where you have a lot of, hand labor and you're growing leafy greens, they do exceedingly well in solar

arrays with that additional shade. I think I'm gonna see more benefits from having raspberries and blackberries where I don't have to deal with as much irrigation for them, and I can have people pay me to come out to do U-picks and have fun experiences for their families out in the solar area. I see that as a benefit.

It's really gonna come down to the individual farmer rancher for how can they build it using the capital that they have. But those are all gonna be systems that are more than likely under five megawatts, under a couple megawatts in size because these things are so expensive. Our project at 1.2 megawatts DC was \$2 million. That's not everybody that has that kind of money or land in a county that's expensive so that you can put it up to bank and get some money out of it. Most of the agrivoltaic systems will need to be built by companies that are, that have larger investors that are going to be hundreds of megawatts in size and a lot of land, and they are going to need a variety of different tools to be able to figure this out. And governments can help by creating policies that help to direct, uh, local communities to think about it in specific ways and, and direct companies to think about it in specific ways. They can create incentives, probably more at the federal to the state level. And then our local governments can create regulations that if they want to have solar array take up X amount of land in that community, that it needs to be done in specific ways so that you can have these dual purposes of that land. So it's a multi-pronged approach. You need to have both your carrots and sticks.

Ariana Brocious: Byron Kominek is owner and manager of Jack's Solar Garden. Thank you so much for joining us on Climate One.

Byron Kominek: Thanks for having me.

Music: in

Ariana Brocious: Coming up, the Trump administration came for her work at the National Institute of Food and Agriculture.

Megan O'Rourke: We got a keyword list of naughty words that included climate change. And so suddenly what we have is we can't talk about it anymore, and we can't acknowledge these scientific realities. It's attacking the whole mission of putting healthy, affordable food on the table for Americans and to use data and to use facts and to use science to do that.

Ariana Brocious: So she decided to run for Congress. That's up next, when Climate One continues.

Music: out

Ariana Brocious: This is Climate One. I'm Ariana Brocious.

Kousha Navidar: And I'm Kousha Navidar. I'm a policy geek and spent a few years as a speechwriter in Washington D.C., which is partly why the story of our next guest is so interesting to me.

Ariana Brocious: Yeah. Megan O'Rourke is a PHD agricultural scientist who spent the first half of her career within different federal agencies, supporting research to help farmers better adapt to climate change.

Kousha Navidar: But when the Trump administration began dismantling federal agencies, defunding programs and deleting essential data, she decided she couldn't make change in the same

way. So she quit her federal job and launched a campaign for Congress! She's currently running for a seat in New Jersey's seventh district.

But before we get to that, I asked her to share some of her earlier work history. During the Biden administration, she worked within the National Institute of Food and Agriculture, helping fund climate science at universities around the country.

Megan O'Rourke: So, you know, we had a budget of about \$2 billion a year, um, and then annually during the Biden administration, and we were funding about \$200 million a year. Projects that related to climate change. So we really tried to take an integrated approach to not just say climate change is a standalone thing, but it's, you know, it affects all aspects of agriculture, therefore it needs to be a consideration and integrated into projects.

Kousha Navidar: Is that where you worked on Kernza?

Megan O'Rourke: Yeah. Yeah. Yeah.

Kousha Navidar: So I've been learning about Kernza in prep for this interview and I think it's such a cool plant. Can you just like tell us a little bit about that project specifically? 'cause that one really stuck out to me.

Megan O'Rourke: Yeah, kernza is the development of a perennial grain cropping system. all the, the grains, that we eat are all annual crops, and so they need to be planted and replanted every year. And you know, this big potential with sustainability just to have perennial crops, so crops with big root systems that have ground cover throughout the year. And so it's been this kind of pie in the sky idea of creating a perennial grain system.

Kousha Navidar: Like you said, it's got deep roots, it's drought tolerant, it sequesters carbon, it comes back every year. The deep roots help stabilize the soil like it sounds like, I mean, forgive me, it kind of sounds like it was made in the lab, like it sounds like it's such an ideal plant, right?

Megan O'Rourke: Yeah, I mean there have been decades of breeding efforts that have gone on for sure. This is not something that just, you know, got invented overnight. My entire career from grad school, I've seen it kind of growing and developing and being bred. And so then to be a, a national program leader, being able to, to see this rolling out, there was a \$10 million project that I got to be a part of led out of the University of Minnesota where there, developing new breeds, trying to kernza into different, food systems, food products to get it commercialized, to get farmers to adopt it, to figure out best agronomic practices. I mean, I think it can be a game changer.

Kousha Navidar: Yeah, so like that's one example of the projects you were working on, what would it take to get more farmers to grow crops like this? Like what kind of federal support would they need?

Megan O'Rourke: Well, I mean, I think what we need is a real research and development pipeline that's working.

Kousha Navidar: Hmm.

Megan O'Rourke: Um, you know, we've been some of the, the best and the brightest. I feel like our research and scientific pipeline is like this flagship in the United States, and kind of a beacon for the world and that has created all these developments and innovation and potential and economic growth and, continued investment is, is what we need in order to continue to have these developments. You know, as a scientist, it's the innovationists experimentation that has made

science great and it, it requires some resources, but what we do know is those resources have this huge economic return on investment and it has the great potential to make agriculture more adapted and resilient to climate change. If we don't keep investing, I don't know what's gonna happen.

Kousha Navidar: Yeah. And so you've worked with literally the grains that would go in the ground and with, you know, the national strategy of making communities more resilient. So with that in mind, we just turned the page on 25. We're looking at 2026. What do you think of as the most pressing issues in the agriculture sector right now?

Megan O'Rourke: We have climate change. Uh, I think, you know, it's scientifically established that that is happening. We've had some of the hottest years and temperatures on records recently. We have droughts, we have floods, we have, extreme weather events. We have warmth in the winter that is breaking buds on, on our fruit crops, for example, and causing massive losses because our fruit trees think it's springtime in January. And so certainly, being able to adapt to climate change is, is a huge challenge ahead of agriculture.

Kousha Navidar: What specifically about, about that preparation do you feel is, addressed right now?

Megan O'Rourke: Well, I mean, I guess that kind of gets us to running for Congress, but DOGE came into my agency just like it did to many agencies. And, and what happened was basically we got a keyword list of naughty words that included climate change. And so suddenly we can't talk about it anymore, and we can't acknowledge these scientific realities that we need to work with our partners about. it's attacking the whole mission of putting healthy, affordable food on the table for Americans and to use data and to use facts and to use science to do that. And instead, we have politics wagging the tail of the dog of science.

Kousha Navidar: Is that what motivated you to run for Congress?

Megan O'Rourke: Yeah, I mean, you know, when, when they do the analyses of the gerrymandering of congressional districts. Some of the top analysts in the country think that there's only 12 seats that are toss up flippable seats, red to blue. And I realized that I happen to be from one of those tossup seats and that I have the experience, I have the passion, I have you know, the ability to, I think, put together a rural coalition where sometimes maybe Democrats are seen as outta touch with rural America and to pull that together and to change the whole direction of this country. And so it wasn't necessarily the easiest decision to go from a civil service job to say, okay, I'm gonna throw my hat in the ring of politics. But it felt like something that I can do and that feels like the most important thing that I can be doing for my country right now.

Kousha Navidar: Have you seen your role as a scientist come into play when you're on the campaign trail? Like, how does that, do you feel influenced the way that you relate to people or the way that you're approaching the, the, the run, especially in your experience with agriculture?

Megan O'Rourke: They want facts. They want, they want data. They want to feel like we can trust what comes outta somebody's mouth. And, you know, I think there's still alot of respect and, trust for, for scientists. I mean, we've devoted, I've devoted my life to trying to discover truth and to bring that and to bring that for the good of mankind. and so I, I have felt like it's very much a positive on the campaign trail.

Kousha Navidar: Yeah. Did you know you wanted to work in, in food and agriculture when you were growing up?

Megan O'Rourke: I did not grow up on a farm, not a farming community, but it was a rural community and, I think now I can understand as an adult where some of my attraction to studying agriculture came from. I mean, I came from a family that we didn't have the words when I was a kid, of course, but was food insecure. And so we went to food banks. We depended on neighbors to help us sometimes with food. We did not necessarily have quality, fancy, nice, reliable food. And so I'm sure that I thought about food in a way that, that my friends didn't. This is something that's, you know, it's just so central to society. Right. So food, where's our food come from? I mean, revolutions happen because food prices go up.

Kousha Navidar: When I hear you talk about food insecurity. I also think about the international efforts and how policy has changed so much, even in just the past year with the way the US looks at. Food equity, for instance. I mean, you spent a year working at U-S-A-I-D and, and that's the national foreign aid program that does all kinds of things, including distributing foods, to hungry people overseas, and the Trump administration ended that program. So, you know, I think it's easy to think about all of those initiatives as being a world away, but that food comes from farmers in the US. And with that in mind, what do you think ending that program is gonna mean for the people who are receiving the aid and for the farmers here?

Megan O'Rourke: Yeah, I mean, certainly part of our USAID work was taking American crops and sharing them with the world. I mean, when you talk to a lot of farmers, that's something that they really take pride in, that we're the bread basket of the world. That, that we have this incredible productivity. And again, that's part partly because we've had this incredible research and development pipeline. When I worked at U-S-A-I-D, I spent my year in Cambodia working on agricultural development projects and forest conservation projects. I mean, I think that for me, that's always gone really hand in hand how do we produce food while protecting the environment? Because I mean, at the end of the day, people have to eat. And if we want to also protect the environment and to worry about climate change, We have to keep people fed. I mean, deforestation, for example, is one of the leading drivers of climate change, and that deforestation is tightly linked to food production, you know, especially in the Amazon, for example.

Kousha Navidar: Yeah. I wanna go back to your work as the national program leader for Climate and Agroecology, because this plays into building up resilience for farmers, right? I mean. Part of your work with the climate hubs and with the extension offices was taking research in agriculture and communicating it to farmers. Can you give an example of how your work back then both supported the efforts of improving climate resilience and maybe helped out farmers' bottom lines?

Megan O'Rourke: Yeah, I mean, I think that that is always essential concern when we talk about sustainability, right? It's economic sustainability, it's social sustainability, it's environmental sustainability, and trying to find where those intersections. Are, and so, you know, for example, with cover cropping as an innovation, right, we're trying to improve the soil health so that we have better productivity, so we have less reliance on fertilizers, but but also less input costs of fertilizers so that we can find, yeah, we're reducing greenhouse gas emissions, we're improving soil health, and we're improving productivity while reducing input costs. And I think those were the, the kind of practical solutions that I was so proud to be working on at Department of Agriculture.

Kousha Navidar: What's it like for you today when you talk to farmers? I imagine it, it's so hard to generalize such a large industry group of people, but are there any salient themes that you see come up when you talk to 'em about what they want, what they need from, from the federal government?

Megan O'Rourke: Yeah, I, I think they want opportunity, they want, a government that is going to support farming as an industry. The importance of having domestic food production in the United States as a pillar of our national security to have food security. And they want to have a system that

they feel like it is fair and that supports them and that respects them.

Kousha Navidar: Let's say you get elected, what do you hope to achieve?

Megan O'Rourke: I don't wanna sound, uh, too pollyannish here, but I mean, I really believe in a future of opportunity. Opportunity for us to, you know, enjoy our family, to have the ability to have food, not worry. You know, do we have food? Not worry about our healthcare. To have a safety net in which people can thrive, to have the opportunity to go to school or to have a trade, and that that pays off and that you have the opportunity to have a family if you choose to have some time to do things besides worry about the next paycheck, to worry about where your next meal is coming from to worry about how you're paying your, your rent or not. I grew up with a lot of economic worries and I am a walking, talking example of the safety net programs, the investments in the future generations, it should not just be about, Hey, are you born into a rich family? No. It's, you know, what is your drive? What is your fire? how can we enable people to be the best that they can? Because ultimately, that, I believe, is what builds our economy. When I got into this race, I did not get into it lightly. I am putting all my heart, all my soul, all my time into doing this because I believe that it is literally the most important thing that I can be doing right now. You know, yes, I've been a scientist my whole life, but you know what? To defend science right now, I need to defend it in this way.

Kousha Navidar: Megan O'Rourke is a congressional candidate from New Jersey's seventh district and a former scientist at USDA. Megan, thank you so much for joining us.

Megan O'Rourke: Thank you.

Ariana Brocious: Hey, it's Ariana and Kousha, and we're wrapping up our show, and as usual, we'd like to share one more thing with you. Hey, Kousha, what you got?

Kousha Navidar: So, as some listeners might know, I am looking forward to seeing all the impacts that congestion pricing continues to have on New York City 'cause partially I live here and also I'm really interested in how to promote more, um, you know, healthier ways of, of transportation. And the New York Times just came out with an article saying that. Since congestion pricing started about a year ago, uh, 11% of the vehicles that once entered Manhattan Central Business District daily have disappeared. And to put that in scale for you, that's about 27 million fewer car trips. And I think that is so fantastic. And it was a bit of good news for the start of the new year, and I'm excited to see how things continue to evolve with congestion pricing.

Ariana Brocious: Yeah, I read that article too, and I think the overall takeaway sounded like New Yorkers are generally happy with it. Of course, people have had to change behavior and that's always a little tricky. Some people said they don't wanna go into Manhattan for concerts or, uh, doctor's appointments or things like that. Like they sort of avoid it because of the pricing. But a lot of other people said that it's improved their quality of life and they get to use the transit more and because the funds collected are going to fuel better transit, that seems like a good solution.

Kousha Navidar: Absolutely. So we'll see how it continues to go. Uh, not perfect, but I think there's a lot of promise ahead.

Music: In

Kousha Navidar: And that's our show. Thanks for listening. You can see what our team is reading by subscribing to our newsletter – sign up at [climate one dot org](https://climateone.org).

Kousha Navidar: POD version: And that's our show. Thanks for listening. Talking about climate

can be hard, and exciting and interesting -- AND it's critical to address the transitions we need to make in all parts of society. Please help us get people talking more about climate by giving us a rating or review. You can do it right now on your device. Or consider joining us on Patreon and supporting the show that way.

Ariana Brocious: Climate One is a production of the Commonwealth Club. Our team includes Greg Dalton, Brad Marshland, Jenny Park, Austin Colón, Megan Bisciegia, Kousha Navidar and Rachael Lacey. Our theme music is by George Young. I'm Ariana Brocious.

Music: Out