

PARTICIPANTS: USDA Chief Economist Seth Meyer; Idaho Row Crop Farmer Lance Griff; FPAC Agricultural Economist Bruce McWilliams; Indiana Dairy Farmer Mike McCloskey

HOST STEPHANIE HO (SH): Welcome to this podcast -- USDA, Now You Know. I'm Stephanie Ho, and in this episode, we ask the question "Can sustainable agricultural practices help producers save money?" The short answer is yes – and if that was all you wanted to know, you can turn this off right now because, well, now you know. However, if you want to better understand what the challenges are, and how innovative agricultural practices can help your farm and your bottom line, then I invite you to keep on listening.

MUSIC BRIDGE: [Atch – Over You](#)

SH: The issue of pursuing sustainable practices, while maintaining cost effectiveness, is a fundamental concern for all ag producers, especially as input prices and other costs continue to rise. It is such a major issue these days that this is the theme of USDA's 2022 Agricultural Outlook Forum – namely "New Paths to Sustainability and Productivity Growth."

USDA CHIEF ECONOMIST SETH MEYER: “New” refers to how are we going to achieve this – including what technologies, or innovations are we going to bring, in order to achieve this goal of both productivity and sustainability? They don’t have to be at opposite ends of the spectrum, right? You don’t have to be either sustainable or increase productivity – there are innovative ways to accomplish both.

SH: That was USDA's Chief Economist Seth Meyer, whose office is in charge of organizing the forum. This year's forum speakers include two ag producers – a row crop farmer from Idaho

and a dairy producer from Indiana. Both of them have first-hand experience with sustainable practices, and although they are nearly three decades apart, age-wise, they both believe in the value of, in their words, doing better.

MUSIC BRIDGE: [Brian Bolger – Earth Appears](#)

SH: It's no secret that the U.S. agricultural population is aging. USDA's 2017 Census of Agriculture reported that there were three-point-four million farm producers in the country, with an average age of 57-point-five years old. Farmer Lance Griff has some thoughts on that.

ROW CROP FARMER LANCE GRIFF (LG): Obviously, the age, the average age of farm owners is pretty high.....

SH: Griff is a third-generation partner at Griff Farms, in Twin Falls, Idaho. Our phone connection was not perfect, but after repeated tries to get a clean line, we went ahead with the interview. Back to the topic of the aging farm population – Griff points to one cliché that has some truth to it – the older you get, the harder it is to change.

LG: I think a lot of farmers have said, “I have put my kids through college doing the way I’ve done it. I’ve been successful, I’ve been able to do this. Why should I change at this stage in my career? You know, that’s a risk that I’m maybe not willing to take.” I just think change is difficult for people. And it requires work – you’ve got to learn, you’ve got to be willing to learn new things, maybe do some more research, look into things – and it just requires effort.

SH: At 41 years old, Griff is younger than the average farmer.

LG: We farm 4,000 acres. Wheat and corn are our two biggest crops, and we also grow alfalfa and barley. And we grow organic crops as well, that being organic corn, barley and alfalfa.

MUSIC BRIDGE: [Patrick Patrikios – Good Times](#)

SH: Less than a decade ago -- or, in his words, "back in 2014" -- Griff started to look into alternatives to conventional tilling.

LG: Just in previous years, we had just seen articles and news reports and videos that had come out, from various sources, but mostly from soil health people, just talking about advances in their soil health, and cutting costs on their farms due to these changes. And, we just felt like, well, we needed to try some of these things.

SH: Two of the innovative practices he tried – no-tillage and incorporating cover crops – resulted in clear benefits.

LG: We could see them, we could see we were getting more worm activity, the soil was infiltrating water much better. That was one of the main things that we were trying to address on our farm, is that all of our farm is irrigated, and it's irrigated by sprinklers, pivot irrigation, more specifically. And there were times when we had difficulty with water going into the soil. And we wanted to address that, and it looked like with the no-till model, that if we kept residue on the soil surface and tilled far less, or not at all, that the water would infiltrate the soil much easier and much faster. So, the water we were putting on would actually go into the ground, instead of running off like we had seen in the past, with our conventionally tilled model.

MUSIC BRIDGE: [Brian Bolger – Floating Home](#)

SH: Many farmers can relate to the challenges of not having enough water, and this problem has been exacerbated by years of intensifying drought conditions, especially in the western

United States. Griff Farms is in Idaho, and it is not surprising that the ongoing drought has impacted its operations.

LG: Just to give an example, last year, we – out of our 4,000 acres, we left out 900 acres that would have been corn. And it would have been far worse than that, but we had reserve capacity in our reservoir, that we had water carried over from the previous year. So, I would say that we probably would have had to leave out 2,000 acres of our 4,000 acres, that we would have not even been able to farm. So, we used prevent-plant crop insurance to protect us from that, but it – we obviously would love to farm everything, but there are certain years where we don't have enough water.

SH: Therefore, in the face of continuing water shortages, one of his primary concerns has been to help his farm become more resilient.

LG: We wanted to figure out a way to stretch our water further, so we figured that if we kept the soil covered, then we would get a lot less evaporation off the soil. And other challenges also are just profitability – we wanted to cut costs as much as we could without sacrificing production, at the same time. It was basically saving water, being more efficient with water and fertilizer and nutrient application – and also, just the net economic benefits of not putting on as much fertilizer, by using cover crops to address some of those needs.

SH: Yes, that's right -- these practices not only helped make the water go farther, they also helped him save money.

LG: We're saving on fuel costs. I would say that we probably have cut our fuel consumption 50%, just by not having to go through and run as many tillage passes, cultivation passes, with our row crops. I would also say that since we're not tilling nearly as much – there are still times when we do till, but very little – but I would say that since we're not tilling as much, we're not wearing out the equipment we do have, so we don't have to replace it as often, also.

SH: And, he notes yet another source of savings.

LG: Less labor, so fewer employees that we have to have, economically has been great – especially now that fuel prices are much higher now, and we have no idea when that's going to come down.

MUSIC BRIDGE: [Patrick Patrikios – Crazy](#)

SH: The Idaho farmer is one of the speakers on a panel at USDA's 2022 Agricultural Outlook Forum. The session -- called "Managing Production Risk -- From Climate Models to Field Operations" -- was organized by Bruce McWilliams, with USDA's Farm Production and Conservation mission area.

FPAC ECONOMIST BRUCE MCWILLIAMS (BM): We were mentioning the difference between prescriptive and what I would call descriptive – and this panel, I think, is an attempt to be descriptive.

SH: So, instead of telling people what to do, the panel will help provide an objective look at the current situation.

BM: I'm not a climate change expert, but I can safely say, at this point, the consensus is by all the top scientists, that climate change is real and is happening quite fast, and we need to talk about it.

SH: USDA has various tools to help ag producers mitigate climate risk and weather disasters, which, at the same time, also are increasing in number and cost.

BM: Due to crop insurance, the producers can defuse some of these risk – you know, at a certain point, even crop insurance might have problems handling it.

MUSIC BRIDGE: [Luke Hall – Dystopia](#)

SH: Indiana dairy farmer Mike McCloskey also is a speaker at USDA's Agricultural Outlook Forum.

DAIRY FARMER MIKE MCCLOSKEY (MM): I am a dairy farmer. I have a partnership in a farm called Curtis Creek Dairy. And we milk about 15,000 cows, there, in six different barns.

SH: Curtis Creek Dairy harvests cow manure and uses digesters to create electricity that powers the farm and fuels 42 milk trucks. McCloskey is retired CEO of dairy cooperative Select Milk Producers and is chair of sustainability for the US Dairy Innovation Center. He says the dairy industry first conducted studies more than a decade ago to try to determine exactly where along the process greenhouse gas emissions were occurring.

MM: And then once we had that info, we were really able to really start pushing innovation on technologies and practices that we could implement on farms, that would focus on reducing greenhouse gases. But we don't stop at greenhouse gases – we look at everything that has to

do with water quality and quantity, as well, and we're looking all the way to biodiversity and the entire ecosystem, so, very focused on all of that. But we do have a big focus directly on greenhouse gases, which are carbon dioxide, methane, and nitrous oxide.

SH: There are differing opinions within the agricultural community about what climate change even is, but that's perhaps not the main obstacle. McCloskey has some insight as to why some of his colleagues may be hesitant.

MM: My view of that is that what people are skeptical about is how do I do this and afford it – which is what I've spent most of my time talking to you about today. That is what the average farmer is concerned about and skeptical of. And at the same time, they don't want it to be a regulation, because once it's a regulation, then there is no market and you have to do it, and now it has to come out of the value of your commodity. So, that's where people are skeptical, saying wait a sec, where is this whole thing headed?

SH: So, he adds, he thinks that if ag producers could see that there are ways sustainable practices could also benefit them, then more of them would be more willing to try them out.

MM: You need to focus on what you can do, and you need to stay informed of newer technologies that can work. We have to create markets for these new technologies – such as being able to sell renewable electricity, being able to sell renewable gases, being able to sell renewable fertilizers – and we got to create these markets. So, we're working on that very diligently, and having some success, but you know, we're not there until we have created a marketplace that every farmer can adopt these technologies,

MUSIC BRIDGE: [Aerohead – Fragments](#)

SH: Back on his farm in Idaho, Lance Griff says he is a firm believer in carrots, not sticks, in terms of encouraging people to make changes that are good for everyone.

LG: We worked with our local NRCS (USDA's Natural Resources Conservation Service) office, and they have alerted us to different programs, different cover crop programs that we can use that provide a per acre cost benefit to us, that once we put in a certain number of acres, we get a cost-benefit from them, we get a check from them, per acre, to implement some of these practices. And so that definitely has helped offset some of that learning curve cost, where you're not sure what species are going to work well in our particular location, and climate, and things like that – we've had to tweak some of those things, where it's not just all on the farmer. And so, those kinds of programs have been very beneficial.

SH: Besides help from USDA, he also has been able to learn from the trial and error experiences of other farmers.

LG: That it was very helpful for me to be able to look at videos and presentations that people had put together on the Internet, and news stories, because they had already done a lot of the research and heavy lifting in this situation.

SH: So, from his perspective, change is occurring.

LG: And so, I think especially now, with higher prices for things, higher fuel prices, like we were saying, the potential for much higher fertilizer prices, I think that people will be willing to take a second look at some of these things, you know, and kind of look over the fence at the neighbors

who are doing some of these things have done, or are doing, and how fewer trips they have to make compared to what the conventional tilled people are doing. So, it is changing, but change is slow.

SH: Meanwhile, dairy farmer Mike McCloskey takes the long view.

MM: I'm 70 years old. And the only shame of that is that I'm not going to be around to see all this come to full fruition, where we are de-carbonized society. But I know we're headed there, and it's going to be done in the next 30-40 years.

MUSIC BRIDGE: [Sarah Jansen – Far Away](#)

SH: So, the bottom line is that, in the 21st century, it is indeed possible for agricultural productivity and environmental sustainability to exist in the same space. In other words, a farmer can help him or herself, and society, at the same time.

MUSIC BRIDGE: [Sarah Jansen – Far Away](#)

SH: I'm Stephanie Ho, with USDA's Office of the Chief Economist -- thanks so much for listening.