Episode 12—Carbon Credits and the Farm, May 20, 2021

Announcer:

The Alabama Crops Report Podcast, your trusted information source for Alabama agriculture.

Dr. Adam Rabinowitz:

Hello everyone and welcome to the Alabama Crops Report Podcast. I'm Dr. Adam Rabinowitz, Assistant Professor and extension economist with Auburn university and the Alabama Cooperative Extension System.

Dr. Amanda Scherer:

I'm Dr. Amanda Scherer, an extension plant pathologist also with Alabama Cooperative Extension. We are excited to be releasing regularly scheduled podcast episodes with up-to-date information about Alabama crops throughout the year. You'll be hearing from extension personnel from all over the state with the latest research and management recommendations. How are you doing today, Adam?

Dr. Adam Rabinowitz:

I'm doing really well Amanda. Just got back from a nice trip up in the Coleman area in North Alabama. Had some fabulous strawberries up there and visited with a lot of farmers. How are you doing?

Dr. Amanda Scherer:

I'm doing good, a little jealous. That's always a pretty area to drive through. I've just been mainly staying in the Southern part of the state trying to get ready for cotton and peanuts season.

Dr. Adam Rabinowitz:

Absolutely. Well, we have got an exciting episode today. We are joined by Jessica Kelton who is a regional extension agent with ACES and she is part of the farm and agribusiness team. And we'll be talking about carbon credits. This has become a really hot topic of discussion throughout the country and a lot of questions around what carbon credits are. And so we're going to talk about that today. How are you doing Jessica?

Jessica Kelton:

I'm doing great Adam. It's nice to be here with you and Amanda. So thanks for having me on.

Dr. Adam Rabinowitz:

Thanks for being with us. So, go ahead and get started here with just... Let's start with the basics. What are carbon credits and why is this in the news right now?

Jessica Kelton:

Okay. So, one of the reasons we're really talking about carbon credits and why we're seeing this in the news, and why we're focused on it from an agriculture perspective is because the market is not new. We've been talking the carbon market since the late 1990s, early 2000s when the industries were really starting to voluntarily look at how to reduce their carbon emissions, primarily industries that are known to pass CO2 emissions. The cheapest and most effective way to reduce those emissions are through improving their technology, adopting new technology to reduce it from the beginning so you're not having to offset it. But what happens is we get to a point for a lot of industries where they're able to offset by that new technology but then there's just a little more they'd like to do to bring down their numbers. And what that option is, is carbon credits.

Jessica Kelton:

What that means is that, okay, we've been able to reduce our emissions a great deal, but how can we bring down our overall carbon footprint just a little bit more? So that's where we start talking about carbon credits. Initially we had the Chicago carbon exchange back in the early two thousands. It was kind of operated as a clearing house where industries that were interested in offsetting their carbon emissions were kind of paired up with people who had planned, they were able to sequester carbon. Now, early on, this was all driven by voluntary desire to reduce those emissions. We haven't had any kind of mandates, early on we talked about it and then the demand dropped off.

Jessica Kelton:

And so those clearing houses that operated to kind of put the people with the carbon credits together with the people who were looking for those, there was no demand so it kind of, like anything we have, it becomes a big topic and then it kind of goes away. And that's where we were probably 2010, 2012 in that timeframe. It wasn't a big topic of conversation anymore. The beginning of that, we're really focused on timber, maybe rainforest programs that were to kind of conserve what we had there, that we knew we were being able to sequester

carbon. But we've really seen a shift in the need to have CO2 emissions reduced by all industries across the board. And that's kind of the driving force behind it now, is that we have a growing demand. Even though we don't have a lot of mandates in place to see emissions be reduced, that voluntary demand has continued to increase, which means we need more sequestered carbon which has kind of trickled over into the ag world.

Jessica Kelton:

And so just to talk about what a carbon credit is. In general terms, one carbon credit is a sequestration of the equivalent of one metric ton of carbon or carbon equivalent in the soil. How that works. It really depends. Are we talking about in forestry? Are we talking about rainforest? Are we talking about on grow crops or pastures and how a grower manages, and this is really just focused on row crops. How a grower manages their field can determine how much carbon is stored in the soil. So for example, if you're a peanut grower or a cotton grower, planting a cover crop in the fall is one way to help store that carbon in the soil. Now it depends where you are. If you're in the Midwest or if you're in the South, how much can you store, can you store in that soil?

Jessica Kelton:

It's not something that we understand completely how much you're able to store in the soil, but you are able to store some amount. And typically, I think it really depends on the soil type and where you are, but I've heard the numbers between half metric ton to one ton so half a credit to a whole credit potential being able to store by using some kind of conservation practice like cover crops or reduce tillage or anything that promotes soil carbon storage. So that's kind of it in just a generalized way of looking at what a carbon credit is from an ag perspective. How a grower can kind of capture that is by using some of those conservation practices that are recognized by some of the companies who are working in carbon credits as we know that this will help store that carbon in the soil.

Dr. Amanda Scherer:

Jessica, I feel like that's a lot of really good information in terms of what exactly is a carbon credit. Because I know there's a lot of confusion and misinformation that's out there. And so it can be hard for maybe some producers to kind of wrap their brains around this. So in terms of a carbon credit, exactly how much are they worth and why would it be beneficial for a producer to look into this?

Jessica Kelton:

Amanda, it's a really good question. How much is it worth? Well, it depends. And I think most economists use it depends for a lot of things but it really does depend. It is, as far as carbon credits being purchased, particularly for agriculture, lands, row crop producers, it's kind of new. I know we said the carbon market wasn't a new idea but bringing ag land into it is kind of a new idea. And so we have several companies out there that are acting as those clearing houses and how they purchase, what they're willing to pay is kind of all over the board. I've heard different prices and price ranges on these. Again, $10 to $20 an acre, maybe more, maybe less. And it really depends on what company you're working with. If you're a grower, what company you're working with as to

what they're willing to pay. And then we have to look at what's going on in the overall market. What is the demand for it?

Jessica Kelton:

What's the demand now versus what is the demand in five years? How long are your contracts going to be worth? Is it an annual contract? Is it a five-year contract? But the biggest thing to think about is, I don't think we're going to see growers as carbon farmers. This is going to be a way to capture some revenue from implementing these conservation practices that you plan on doing anyway, but maybe getting a payment for it. It's not going to be, I do these practices primarily for the carbon credit payment. It's not going to be something that these growers are getting as much as you would for producing a cash crop off of this land.

Dr. Amanda Scherer:

I definitely agree with you there. A lot of the practices that you mentioned, farmers are already doing these. No tillage, going into cover crops, crop rotation. I know that sometimes they can use the manure from their cattle as part of their carbon score. So I think I agree with you there where it could just be a way maybe to offset some of their costs or just bring in some additional revenue.

Dr. Adam Rabinowitz:

So, Amanda, that's a really good point about these different practices. But some of the things that I've been hearing about is this term additionality and what that means exactly and what it is about existing practices versus new practices. So Jessica, can you talk about that a little.

Jessica Kelton:

Adam, that's a great point. Additionality comes up a lot when you're talking about purchasing carbon credits and it's kind of a difficult concept to grasp because it seems counterproductive to say, "Okay, well, you've been doing these conservation practices but now you're not going to be eligible for these payments." And what additionality really means is, how are these practices? How does it increase that carbon that you've already been storing? What is that amount above and beyond? So, if you've been a no-till grower with high residue cover crops for years, if you were an early adopter, for some of these companies, you may not qualify for carbon credit because you've established your baseline at, you're already storing X amount of carbon in your soil. And so to qualify for credit is, what am I doing above and beyond what my baseline is to store carbon?

Jessica Kelton:

And that's really what that term additionality means. Is what above baseline are you able to do to store that carbon. Which becomes a big point of contention if you're a grower that you've adopted these conservation practices for several years and now I don't qualify. I've been essentially storing carbon for free and now everybody else gets to get paid for it. I have heard some companies who are looking at ways to offer credits for past conservation practices, kind of to allow those growers that have adopted this early on to get basically reimbursed for those practices. But it is something to think about, what was going to be required of you as a

grower, if you are strip tilling and using a cover crop. Are there other management practices offered by that company that would qualify you for a carbon credit? So maybe it's not just, "Okay, I'm using one species for a cover crop, but now I've increased. I'm doing multi-species cover crops." And I was strip till, now I'm onto no till and maybe that allows for me to qualify to get paid for that carbon credit.

Jessica Kelton:

So additionality it's kind of sticky but it is something we have to think about as the growers. Am I going to qualify?

Dr. Adam Rabinowitz:

Right. This is really interesting because these are all private companies that are working in these markets right now. And well in Washington DC, with our current administration, President Biden and the USDA Secretary Vilsack, there has been a lot of talk about potentially creating some type of carbon bank. And some of that discussion is what would happen in terms of benefits for those that are already engaged in some of these existing practices. Because also when we talk about the fact that these, are private credits being offered? There are no guidelines. Every company is a little bit different. More, most recently here in late April, the US Senate Committee of Agriculture actually approved a bipartisan growing climate solutions act. And this will go to the full Senate and this actually would give USDA the authority to create protocols for these carbon markets and some guidelines on how farmers would qualify for these carbon credits. That initial bill right now does have bipartisan support but it'll be interesting to see what moves forward.And I know that there are a lot of stakeholders in Alabama and elsewhere that have really gotten involved in this conversation.

Jessica Kelton:

Yeah. And you're very much right Adam as far as, where do we go as a market. As a whole, we really have to think about, will there be mandates in the future? Will there be any kind of requirements for industries to start having reduced emissions? If there are mandates, that is definitely going to drive the demand. And if it's standardized, how does that change? Whereas right now we have all of the private organizations who are acting as those clearing houses and there's no one rule on how they work. So I think we're definitely going to have to watch. Is there going to be a mandate? Will the USDA be involved from making their carbon bank?

Jessica Kelton:

And I know there's that bill that's been proposed and you wouldn't think that this was necessarily the case, but there are a lot of environmental groups that are kind of opposed to having carbon credits. Because the thinking in that is that if we have an opportunity for industries who are trying to offset their emissions, in theory you could have a company that says, "I'm not going to change any of my practices. I'm just going to buy enough carbon credits to offset it." So from an environmental perspective, there's the concern that we don't necessarily fix the problem, we're just passing the buck to someone else who can kind of offset that by those carbon credits. So there has been a little bit of pushback from some of the environmental groups.

Jessica Kelton:

But overall, I think there's something we can work with there and two, some of the numbers I've looked at say that that industries, by and large, it is more cost-efficient to put in new technologies to help offset those carbon emissions. And this is just a way of bringing them down a little bit more. Maybe there's some technology that's extremely expensive and they just can't bring their CO2 emissions down so this is a way to offset it. But if there are other they can do to offset without having to buy carbon credits, a lot of companies are trying to do that.

Dr. Adam Rabinowitz:

So Jessica, do you have any final advice for producers that might be thinking about carbon credits especially if they've been approached by a company?

Jessica Kelton:

I think anytime we're talking about something that's new, really in this situation, in some instances, you may have some upfront cost. It is not just a set way of determining your carbon credit. You have to kind of think of it as a organic certification. You do have a benefit by selling organic but being certified doesn't come without a cost. And for some companies, it doesn't come without a cost to get carbon credits. They have audit requirements and that cost a grower. Ultimately, if you're looking at carbon credits and you've been approached by anyone, understand what the contract says. Read it and if you don't understand everything in it, get some advice from someone you trust, maybe even work with a lawyer to learn that contract, understand what's in the contract, be comfortable with what's in that contract.

Jessica Kelton:

If you plan on selling your land in a few years, how does that affect your contract? But just understand what you're signing, know that what you're going into. If it's a long-term something, what is it? Is it holding you in, requiring for you to do long-term? We just don't know what the market's going to do this year versus next year. Are you making sure that you're protected if the prices for that carbon credit go way up and you can't get that price anymore?

Jessica Kelton:

But ultimately, don't look at this as a payment for something that you wouldn't necessarily do. If you're interested in adopting conservation practices and I hope that a lot of growers are, maybe this is just an added bonus. But look at it from a, do these management practices work for my farm? And now I can benefit financially from them, but I'm already going to be doing those practices. Don't look at it as I'm going to change my management practice because all of these will come with trial and error. Make sure that you are comfortable with whatever practice that you're going to be adopting. And if it's reduced tillage or cover crops or anything like that, there's a lot of people within extension who can act as great resources to kind of guide you because we definitely don't want to see anybody's yield be affected just because they're trying to chase carbon credit dollars.

Dr. Adam Rabinowitz:

Yeah, I definitely agree with you there where when you're adopting new management practices or different conservation practices, there's always trial and error. And we actually had Annie Dee from Dee River Ranch on a couple episodes ago and they converted quite a while back to reduced tillage or no tillage and she was honest about it where the first couple of years, they just failed at every turn. But then they finally got their ground, worked a lot with extension and some researchers here with Auburn and are in a good spot right now. But definitely don't just go into it blind to get some carbon credits.

Jessica Kelton:

Absolutely. And I will mention that there are some companies who offer carbon credit payments but they look at your yield and they do not want to see a yield lag because the goal is that you're sequestering carbon but they don't want to see that it affects your production. And we all know if you're working with new management practices, it is trial and error. And so you're adopting a new management practice and if your yield starts to slip, does that affect your contract and your payments? So if you're going to adopt something you're not familiar with or haven't really worked with, make sure you get help adopting those practices and not just, I'm doing this for a carbon credit payment which at this point really isn't enough to be your reason behind adopting these practices.

Dr. Adam Rabinowitz:

Well, this is really excellent information. Thank you very much, Jessica. We appreciate the opportunity to talk with you on the Alabama Crops Report Podcast and I'm sure that we will be talking about this issue more. And as always, if we can ever be of any help to anyone, please don't hesitate to reach out to us. Amanda, I've really enjoyed today's show.

Dr. Amanda Scherer:

Yeah, me too. I actually didn't know too much about carbon credits before coming in so we appreciate your time today, Jessica.

Jessica Kelton:

Thanks again for having me on.

Announcer:

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