Season 4 Episode 8 — Auburn University TAPS Program

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Announcer

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

Scott Graham

Hey, everybody, welcome into another episode of the Alabama Crops Report podcast. Simer, we've got a big group in here today. Yeah, this is probably our biggest group so far. Hopefully. Maybe our biggest group we ever have on the podcast. So we are, live from, Alfa building, the real Alfa building, not the one on main campus at Auburn, but the one in Montgomery, with our, Auburn TAPS program.

Scott Graham

So, we're going to talk about that. We've got a lot of farmers that participated in it. And, and other folks at Auburn, that helped kind of drive this a really neat, neat idea. So, I don't know exactly how this is going to go again with this many people, but we're going to try to have a conversation and talk about the TAPS, what we learned, what it is, what we learned, and then, you know, kind of moving into next year what we're going to do.

Simer Virk

Yeah, absolutely. And to kind of kick us off if either, Brenda or Adam, you know, one of y'all want to very quickly, briefly, share information on what is the TAPS program, with our audience.

Brenda Ortiz

So, thanks, everyone. I am a professor in the crop, soil, and environmental sciences department, so that's the TAPS stands for Testing Agricultural Performance Solutions. But the goal of the project is to test, crop management practices and use novel technology and solutions to improve profitability, and environmental sustainability. So, we invited this year eight teams of farmers and consultants to really farm a corn crop at the EV Smith Research and Extension Center. And these teams made decisions prior to planting and during the growing season, during the growing season.

Brenda Ortiz

So, we are excited we have some of the top teams with us here and some of the members, of the program as well.

Simer Virk

All right. Thank you. So, like, as, Brenda said, we got a few of the participants here, so I'll probably get you Drew Wendland. So, I guess, do you want to just briefly share, you know, your participation in the program and also maybe my question would be why did you decide to get involved?

Drew Wendland

I decided to get involved largely to see what Jeremy was doing. They haven't told us what a team he was on yet. But I'm still. I'm still working them over. But in reality, I do think that it's important to see, what other farmers are doing and where they're having their success. And, it also gives us the opportunity to maybe tweak some plans that we like.

Drew Wendland

Like my production plan was based on, based on the way that I grow corn on my farm, but also it allowed me to make a few changes, and kind of experiment on a place that's not really my own as well.

Scott Graham

You know, Jeremy, we always kind of joke, but it's true that probably the biggest benefit of our county meetings that we do is for farmers. They have the opportunity to talk in the back of the room and share ideas, share stuff that they're doing. And, you know, hopefully what we're presenting helps. But a lot of it's there. And that's really what this has been an opportunity for y'all to do to actually see it and compares I think it's been a really cool, experience. Yeah. Jeremy, you want to share some, but not all your secrets. That's right.

Jeremy

Okay. I can't share all the secrets, but like Drew said, it just kind of, getting to watch what other people are doing, making decisions and seeing that they actually do make a difference versus what the next person was doing in the same field, because you can talk about what you did on different fields, but that that and sometimes that doesn't translate into real life.

Jeremy

But this was actually looking at something side by side. And when we made different decisions, what it how it affected the crop. And so, it was very interesting to see. And something else, if I may, is, you know, we, we, we do our research plots. We have a check plot, which is if we didn't do any of these things, this is what would happen sometimes, you know, you're not going to do that in your own farm, obviously, right?

Scott Graham

You're not going to leave out ten acres and just say, well, I see what happens. But in this you actually did have a check plot where nothing happened or relatively nothing happened where you could actually say, hey, yeah, this is, you know, what these decisions did. And so, that's probably nice as well to be able to see that.

Simer Virk

Drew, I kind of want to follow up on that. You mentioned it's not just you made decisions on how you used. You do it on your farm. Right. And even Jeremy for you, I guess after participating in this, I guess the whole goal of the program is learn, right? Different management practices and maybe take it back and all sharing with other growers, would you guys? I feel like learning anything that may have changed some of our decisions, or you think has the potential to change in 2025 on your own farms, and we're not there yet. And you can be completely honest.

Drew Wendland

You know, I'm not looking to change a lot of things. Yeah, I still think to make a good decision that I'd like to see a little more information about some of the background stuff. That's not really a result of what we decided, but may have had an effect on it. Too, before I would change a lot of things, but it was interesting to say that the, the way the timing of the nitrogen applications affected the final outcome. If you're already doing it three times, you might want to look at where you put the what timing.

Drew Wendland

You put the majority of it out at. And I also think, you know, this year when you talk about timing, that can change from year to year, because this year was a dry year. And so it maybe it didn't need the nitrogen late because you didn't lose what you put out early. And if you had gotten a big rain, maybe you lost it this year.

Drew Wendland

I don't think you can make too many decisions off a one year. But one thing that I've been noticing over the last several years, and Doctor Ortiz is really done a lot of work with, irrigation and and I actually don't use sensors on my farm right now, but I have seen what sensors are showing in the crops, and over irrigating is actually hurting us more than under irrigating.

Drew Wendland

So, if you had, you know, if you're looking at borderline, I used to not think you could over irrigate when it got hot. And now I'm realizing that you can that you're actually hurting that crop. So, that's one thing that we've kind of implemented into our farm. And it kind of showed in this, in these plots also. So that's one thing that I will take away.

Simer Virk

Yeah. No, that's a great point because I think one of the main goals is testing performance of different technologies and management practices. Right. And from the data, if you feel like, hey, we may be over irrigating and I think we can find a benefit of using soil moisture sensors to cut back on our irrigation. You know, that's kind of a good, good lesson there that could also be applicable to other other audience or growers.

Scott Graham

That's right. And you know, we've got our two of our economist at the table as well. And one thing that I think we kind of learned or we already knew but confirmed through this is with bad prices. There's two ways to make

money, make the most yield you can or check plots made money to you, but basically do nothing. So, either put the least amount you can into it and just get what you can, or try to try to make the most of whatever your commodity is.

Adam Rabinowitz

Yeah, Scott it's definitely, you know, there's the, the thing out of this program that really kind of struck me is the fact that there is such variation amongst teams in terms of the decisions that they made. But then when we start putting those costs to it and figure out what those net returns are, opportunities for making some money, you know, we're definitely there. That wasn't just tied to yield. You know, we can start talking about the use of crop insurance. While there were no indemnities that any of the teams received in that, it does show that, you know, that there's some protection there and, you know, contributes a little bit to that input cost. But, you know, when it's combined with marketing strategies and marketing plans, which Wendiam, can talk a bit about, you know, there's opportunities to make even more money, but controlling those costs of those inputs, you know, in terms of input efficiency and then ultimately minimizing your, your costs, can ultimately affect your profitability and make for a better outcome.

Simer Virk

Yeah. No, definitely that I think that's a great point. Adam, we kind of want to bring you in. You you officially then participated in the program, but you've been kind of very involved with Extension, and Auburn University hosted a bunch of on farm trials over the years at your farm, too, right. What do you see? Do I guess, do you find value out of this today by attending or even learning about the program? Or how do you kind of.

Adam Temple

Absolutely. There's a huge amount of value. So, this is where I think the most value comes from, like there's an infinite amount of decisions that can be made on the farm. And what we have, what you have in TAPS, is allowing 6 or 7 farmers in their lifetime experiences to make decisions on each part of this, and then we get to compare it in real numbers.

Adam Temple

You know, that's, it's not just one year. We're really tapping in from their lifetime experience to the farming, to add value to. So, you know, it's kind of a cheat sheet to see. And it was, you know, eye opening on, on, you know, for me is get a control cost because of, you know, the value added or the, you know, money that can be put back in your operation. Yeah, it was eye opening. So, I know this is one years of data. Data that we see here, but, you know, hopefully this program last a long time. We're going to see it over, you know, decades maybe.

Scott Graham

Yeah. So, I think that's the plan Brenda. Is that right. We want to keep it going.

Brenda Ortiz

Yeah, we want to keep it going and not only focus on corn management but perhaps peanut. And I think that there is a lot of interest on, on a peanut crop and how these type of products, can impact peanut production. And of course, the profitability and bottom line for the peanut producers as well.

Adam Rabinowitz

So, I think I just want to add that, you know, for next year, we are looking at some of those other opportunities and, you know, implementing an online platform for those decision making will make that a little easier, but also the marketing side of things. Right? So, when you when you speak a little bit about the marketing plans, because that's going to be something that are going to be some good options for education and then seeing what kind of results from that.

Wendiam Sawadgo

Yeah. So, on the marketing side, this year all teams, marketed their, their corn at harvest. And, you know, typically I'd say eight out of ten years we've seen that prices the first half of the year are higher than at harvest in that, that later half of the year. So, there was some opportunity for some improvement by marketing preharvest. And so, two of the strategies the teams are able to use are just forward contracting or hedge to arrive contracts. And so overall teams could have improved their prices by by about $0.50 to $0.80, by having those marketing plans there. And so, in the future, you know, that's one way when we're talking about increasing revenues with yields, there's always that trade off where, you know, a lot of times you increase yield, you're increasing costs. So, you really have to balance it out. But on the marketing side there's an opportunity to increase revenues without really adding those costs there. So that's something we can take advantage of.

Adam Rabinowitz

And we've already heard some feedback from participants this year that have said, hey, Will, I don't do that. This is something I need to start learning and start thinking about.

Simer Virk

Drew and Jeremy, I guess, kind of along the same lines. This was obviously the first year there was a lot of learning and everything. Right. What would we hope you guys would continue to participate? And maybe Adam, what would you what I guess learning from this year, are there other management decisions, input and all that you kind of want to maybe see as a part of that could help you? But even other growers across the state, you know, that may not have been a part of this year.

Drew Wendland

Are you asking like changes to make or…

Simer Virk

Or even other management practices or inputs, like Scott and I were even talking about scouting, fungicide, insecticide applications? When we talk about soil sampling to know P and K, you know, are there other things that could add value to the program next year that the team should be considering?

Drew Wendland

I think that the main benefit of doing this with the university is the amount of resources and technology that they have. As far as your areas of expertise, and then also the way that we can analyze data and that everybody's looking at it from a different angle, that, you know, naturally, Scott would say maybe we should consider some sort of insecticide management approach because he, he that's his area of expertise. And he thinks that, you know, that's an area we could do better. And then the ways that we can analyze the results that we got as what, you know, whether we can find other correlations that are outside of our decisions, or we can correlate similar decisions between growers like they're already working to do. I think that that's going to show some value, like, hey, it looks like eight out of the ten people who decided to go right instead of left, you know, were better because of it. And I think that doing those kind of things can give you some mathematical support for a decision, and kind of help eliminate some of the bias that we have, because I think that all of us as producers are biased toward our by what our experience has been in farming and may even be biased from year to year. Coming off a bad year, coming off a good year, how that affects what you look at next year. But if you have some statistics that say, hey, you know, seven out of ten times, this is the right thing to do, I think that that's that's what I'd like to see. And what I look forward to kind of seeing is how different people can move towards the same goal of like efficiency and profitability. But not all on the same path.

Adam Temple

Yeah. Kind of along those same lines. One thing, and I don't mean this to sound bad in any way when I say this, but sometimes when Extension does good work. But when you look at what Extension does and they make the decisions on what to do, then you think, well, if I had done it, I would have done it differently.

Drew Wendland

Or if it had been done this way, it would have been done right. Well, now I'm the one making the decisions. Drew's the one making the decisions. And it's on a scale where you can see, you can compare it to our two decisions as to what we did and Extension is is handling that. And that's the only way that you can do that to make it.

Scott Graham

And I think that when when the farmer actually makes the decision, then we actually believe, you know, in what we see. And so, I think that kind of helps. And even when people go and look at this later, other farmers look at this and they say that farmers are making those decisions. I think it it brings more it adds more weight to the decisions.

Simer Virk

Yeah. And also, more credibility along with we say the same thing about on farm research versus a small plant or something, right? Yeah. It's done in an actual environment in a grower with the growers equipment, technology, everything in here. I like what you said. If we if I was making a decision, well, I would have made it different.

Scott Graham

But this time you made the decision. Decision. So. Right. That's that's a very valid point. And so, Eros this year we were due to I guess Extension didn't have a team, but, next year I hope we do have a team. And as an unofficial member of the corn team, I wish you all the best in beating the farmers.

Eros Francesco

Yeah, absolutely. We did struggle with space availability this year. We wish we could. We could have, like, 20 teams participating, and we had to fit eight teams. We we did have space for eight teams, but then we figured out that we needed a check, a control, in order to calculate all the indices that we wanted to calculate.

Eros Francesco

So we step down and we leave. We decided to to leave the, the plots for a check. So next year we're going to work better on, on having everyone participating. Plus, an Extension specialist team, not because we want to be the farmers and that's not going to be the case. But the thing is just, to compare what the university recommends actions are to what's going on in the real world.

Scott Graham

Right? So, I think that's going to be interesting from this point of view as well. It's something we don't get to do a lot as scientists is look at the whole big picture. Right. We're looking for how does water efficiency impact yield. And so, everything is controlled with that one factor. And what we learn a lot. And we do talk with with farmers or go out and see in the real world is sometimes these other things affect it.

Scott Graham

And maybe what we thought aren't exactly right in every situation because of all these other factors. And now having this where we can look at all of our recommendations for all, you know, 20 different things, maybe we will say, oh, we need to tweak that a little bit. That didn't quite fit like we thought it would. So, I mean, we're going to learn stuff about our own recommendations to know.

Eros Francesco

Absolutely. I think the beauty of the project is we we can change some of the decisions, but we need to have a standard protocol for most of the management practices. Right. But, in evaluating the decisions that were made, we had some changes, variability, and the outcome was different. So, I think everyone could see the results and say, okay, maybe I have something to learn from this experience. And I think that's valuable for everyone involved.

Brenda Ortiz

When you get married, on a Saturday and on the following Saturday, your husband is with you in the field, you know, that means that means a lot. So, I agree with with, with what you just said, Scott. And and where these type of projects would not happen without the the collaboration of the people from the research stations. I think that we all were learning, by doing, this year. But I think that what what it proves, what this project proves is that when we work as a team, including in the farmers, we can reach much farther.

Brenda Ortiz

And I think that that's what the real goal of this project is, is it's a true collaboration between the farmers, the university, Extension, and the private industry. So, and that's the reason why we all these stakeholders was where, here at Alfa, you know, they are interested in this project. They are interested on the learnings from this first year, but it also they are ready to support this project for next year.

Brenda Ortiz

And I really would like to thank also the leadership of Carla Hornady representing the Alabama Farmers Federation today and also for supporting this project and this effort. Why are you so committed to this project? Carla?

Carla Hornady

Well, Brenda brought this before the wheat and feed grains. And I think just that committee thought that it was exciting. You know, we're currently in some tough times on the farm, and I think learning more about what others are doing and putting maybe their timing against your timing of applications or your seed choice against someone else is just to see in these difficult times, can you save some money by, you know, doing something different and time and applications different, or the amount of, you know, applications different?

Carla Hornady

And so, you know, I'm that's my job is whatever the committee is excited about to be excited about and make sure that it's a success. And we had a great group in the auditorium today to hear the results. And so, I think that just shows the interest that people across the state have and the farmers have. And I do think that, you know, there is a lot to learn from this.

Simer Virk

Yeah. No thanks, Carla and Alfa for all the support and everything. And hopefully, you know, we'll see more and more participation from the growers, but also from the Extension team, you know, and even, you know, trying to include some other crops in it.

Simer Virk

Scott and I were also talking. It would be great to have our Extension agents as a team, in a way, because end of the day, the reach out to us for recommendations of our growers. And I'm like, how would they approach this? Right. So that would be good to put there because it's a learning process for everybody too.

Simer Virk

Right. Other thing, I guess, you know, we always talk about, irrigation versus dryland. I think I'm curious as to if this was a dryland situation. How would have your management decisions changed? Would drastically not. Or how would you have? Would you have made it very differently and try not to use hindsight? Yeah. Now, just when it comes to our farm, the main thing that we do different, is just lower the nitrogen rates because you're, you're estimated yield in Alabama can range big down.

Drew Wendland

You know, there's a big change. So, you know, I think if we were at like 270 units, the nitrogen is what we put out. If I'm on dry land, 200 is going to be a maximum, for me, and that's according to what, you know, what's all type, you know, if it's good ground or background, but two hundreds is and there's not going to be much more than that and risk it on dry land.

Jeremy

So that would be my main difference if it was a dryland, I think. I agree with that. I would adjust nitrogen. I typically try to put less money at risk on dry land acres, so I probably would have my total cost pulled back around 200 to $250 an acre. I'm just shooting from the hip here.

Jeremy

But like I would, I would pull it back significantly. To have less exposure to that seasonal risk. And, I would that would go all the way back to even the variety choice. I might be planting just some, some acres. I'll plant just straight roundup ready. You know, I'll go with older technology, not get the three gene. You know, from starting from the seed all the way forward, I might find cheaper products to to move in the same direction, but with kind of a lower, top end goal.

Scott Graham

Yeah. You know, I don't know if y'all looked at the Variety Trial website much this year yet, but Henry Jordan, who runs that program, oversees, said that at Belle Mina site of this year, the dryland corn was right at the trial average is right at 100 bushels an acre.

Scott Graham

The irrigated, which got six inches of water. All it got 250 bushels. And so that just shows you exactly what y'all are saying of you. You can't put the same upfront resources knowing you're not going to have that yield potential in one thing. If I was really trying to push my dry land, what are you talking about? About drew, about cutting down on, pulling that number back.

Drew Wendland

The dollars per acre is I'm in this trial with irrigated. I put all my nitrogen out. My basics. I might not have done that. Again, I might have put out to where I want to be. But then later in the year, if I'm continuing to get rain, I might add some not of that later to, you know, because you realize what you can make instead of putting it all out upfront and, you know, hoping because you can waste a lot doing that.

Scott Graham

Yeah, yeah, farming is I, I'm not a farmer, but I see it a lot like life. You just make the best decision you can with what you know now and then you that get you the next week or the next decision. And sometimes you look back and think, man, I could have done this, but you didn't know what was going to happen at the time.

Scott Graham

You're just operating with what? With with what? You know. Yeah, you keep adding. And that's just me being curious, adding a dryland situation and this and the future would help because Grant, we always talk about only what, ten, 15% of our state is irrigated. That would have a bigger impact on the growers who are actually in a lot of dryland situations.

Drew Wendland

I think the problem with that is there's so many variables, and that's what irrigation takes those variables out. So, I mean, yes, I think it would be good. But also, I don't know, that would take a long time to actually to learn something from that because it would change from year to year. And the timing of that rain, if it was one week later or one week earlier, could have made a huge difference in that crops.

Drew Wendland

I, I just, I think the irrigation takes so many variables out that that's the way you actually learn something to take. On the same note, I do think that like you could take the framework of like how we're making these decisions and we have different producers doing the same thing. And if I could maybe understand where Jeremy's head's at when he's when he's growing a dryland crop and when he is on his.

Drew Wendland

We're looking at his second nitrogen application with no rain in sight. You know, if you could understand the reasons why somebody makes those decisions, it can it could help you make your own decision. But just, you know, get a consensus. I'm really guilty of that. I'll, I usually called 3 or 4 people and they all know who they are.

Drew Wendland

And, and they'll tell me, well, I know so-and-so is going to say this, but this is what I would do. And then at the end of the day, I'll, I might take one of their advice, but I might just hear them all and then do what I want to do anyway. So, I think I, I don't know, I think understanding, how people come to different conclusions is, is just as important as what happens after you make the decision

Brenda Ortiz

I have I have a question, perhaps for Jeremy and Adam Temple. So, if we want to replicate this project in one of the two major row crops in Alabama, either cotton or peanut, which one you will pick and why?

Adam Temple

Oh God, would do you want to jump in? But like a like a success with whatever, whatever, you know, has the most acreage, which I would say cotton would probably you have to look at for the greatest benefit. Maybe I want peanuts added, but greatest benefit for the state as the known person who is the most biased towards cotton, probably in Extension, I'll say peanuts because cotton is such a reactive crop.

Scott Graham

If they have the option of ten different varieties and then they all need to be picked differently, they have different maturity, so they should be picked differently. And that just really complicates it. Or peanuts or it's kind

of like corn in that you pretty well know when you plan it, when different inputs are going out. For the most part, it's much less reactive.

Scott Graham

It's more proactive. So I just think logistically it would be more doable. Yeah. I think there's another side that we can look at with this too. If we want to get real ambitious, we can think about rotation. Well, if you keep doing it in the same field and all that you can, but like back to peanuts, I think it would be appropriate to do that.

Brenda Ortiz

And I think there is still a lot of room for improvement when it comes to, to harvest decisions. And again, there are there is, I mean, a lot of opportunities ahead of us. We just need some funding. Carla, for peanuts. You're going to have to talk a little.

Simer Virk

And it would be very interesting peanuts to see, like the high input environment and a low input environment and see which one wins out economically over, you know, period of time. Yeah. See this I was thinking about that when the results were presented in a way. And I've seen some researchers do that in cotton, I guess in Tifton, maybe in a way where they do, we call or I think we had this discussion or crops meeting go for low input management, right where it's like you're trying to make the most money by reducing or cutting down on everything.

Simer Virk

And then one in the middle would be a moderate where you spend the money on where you find value the most, but then cut down on other. And then the high would be where you spend money to make money, right? So, like comparing those three strategies against each other to just to kind of see which one, you know, jumps out.

Jeremy

Because I know there could be differing opinions on how you want to be profitable. Right. And the one thing I've never grown peanuts, so I can't answer to this, but I know talking to people that have grown them, it's a lot of work to do. Either one of them, takes a lot of time and a lot of different applications and different things.

Scott Graham

And the issue with cotton, one thing you were talking about is it to me, I go on fields and a lot of towns on a lot of things to do with cotton. So that would be a difficult side of that to to do that. But it'd be very interesting to see, especially if you had the same variety across the field people, the white people handled it differently and how it affected yield as a year went.

Scott Graham

It would be very interesting to see. And I can tell you, somebody who lives in Auburn and and raises cotton in on the Tennessee line, basically, and in the ocean. The gulf is very difficult to stay on top of managing it that far away. And you're not touching it and seeing it all the time. And then you miss plant bugs for a week, and there goes that whole week of fruiting and that delays maturity.

Scott Graham

So, it would be difficult. I'd love to do it. But it would be difficult. Well, we, appreciate your time. Anything else we need to cover or any other points? This this has been great. Brenda, again, thank you for leading this and bringing this to, to Auburn. Do you want to tell people who might want to be involved next year how to get in touch or how to go about that?

Brenda Ortiz

Yes. Before we leave, I think that what this year demonstrate is the value of teamwork. I don't want to I want to rate, you know, repeat this. You know, we have the grain crops Extension agronomist to ag economics. You know, I can see in years, the colleagues at the experiment station, the farmers with all the knowledge, you know, the support from industry.

Brenda Ortiz

I think that that's the real value of this project because we all are pursuing the same goal, which is helping, our farmers. So, we are excited for next year. Next year, the the teams will have access to the national Taps platform where they can directly, you know, choose among the choices that are given to them prior or during the growing season.

Brenda Ortiz

So that's great. You know, anybody interested in TAPS can get in touch with Dr. Francisco, Dr. Adam Rabinowitz, Wendiam or myself or at the EV Smith Research and Extension Center with, with Andrew Sparks. So again, thanks to all the teams and, and the experiment station for the supporters as well as Alfa.

Brenda Ortiz

And we are looking forward to start, the new a year, with perhaps the same themes or different things. We don't know, but, but we are excited. Thank you so much,

Scott Graham

Brenda. To the kind of follow up on for the next year. But if people are listening to this and they're interested more in, hey, I want to see some of the results or the yields or different, what can they find out?

Brenda Ortiz

And yeah, so the report that we distributed today will be available either on the Extension, website or in my website. In the upcoming week, we are going to make the report available online. And then we will use social media is even the either the precision agriculture Facebook page or our Precision agriculture Twitter account.

Brenda Ortiz

Or that or our Alabama Crops Facebook page. We will announce and share the information of where the report will be placed. But definitely, the report is ready, and it can be available to anyone who is interested in learning about this project and perhaps joining either team, if not as a direct participant. There are a lot of learnings that, are happening from this project and during the execution of the project.

Scott Graham

All right. Well, as always, I appreciate the listener's offer for joining in with us.

Scott Graham

And if anybody has any topics or ideas or things that that we should talk about, please let us know. And as always, if any of us here with Alabama Extension could do anything to help, please, please don't hesitate to reach out.

Announcer

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