



Season 4 Episode 5 — Auburn University Variety Testing Program

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Announcer

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

Scott Graham

Hey, everybody, welcome to the Alabama Crops Report podcast. Good to be back in the room today. I'm Scott Graham, got Simer Virk and Henry Jordan with us today going to talk a little bit about the Auburn Variety testing website and what's going on there. How's it going guys?

Henry Jordan

Good. Glad to be here.

Scott Graham

Yeah. Henry's going to do a little Extension type work today. He's got a, I guess 100%, research responsibilities. Henry manages our, variety testing program, and it is a ginormous program.

Henry Jordan

Yes.

Simer Virk

Yeah. I was going to ask you for our audience who may not be aware about the OVT program here. You know, before we jump into some of the other stuff, can you can you tell a little bit about what that program is and what your role in it?

Henry Jordan

So, the OVT program at Auburn, we have approximately 20% of all the research is conducted across the Alabama experiment stations. So that, I mean, that encompasses everything from cattle research to horticulture, row crops, everything. I've got approximately 20% of that. And then the program in general for the 2025 season, which we're planning the winter greens and the forages for the 2025 season, we're projected to go over 130 trials for the season for the year.

Henry Jordan

So there's a lot of moving parts. There's a lot of stuff going on. We do everything from cotton, corn, peanuts, soybeans, grain, sorghum, five species of winter forages, a little bit of everything.

Scott Graham

How many locations?

Henry Jordan

Depended on the crop. It varies. But overall I think we're at nine locations.

Scott Graham

How many? Approximately how many plots do you anticipate in 25?

Henry Jordan

Too early to tell for 2025? For 2024. I think it was over 10,000.

Scott Graham

10,000 plots.

Simer Virk

And these are spread all across the state.

Henry Jordan

Yes. Spread all over the state. All the way from Bella Mina to Fairhope.

Scott Graham

Yeah. That's one thing that's kind of unique for us. And I talk about this a lot, but how, you know, we grow crops basically in 67 of 67 counties, right. Depending on the year, cotton is it can be in as many as 61 or 62. And so, you know, you think about farm variety trials and doing those in a lot of locations, which pretty much everybody does across the belt.

Scott Graham

Right. But most of them don't run these official variety trials in as many locations as you do. But we've really got to because there's so many different environments across the state.

Henry Jordan

Yeah, Alabama is much more diverse than my home state of Georgia. As far as grilling environments.

Scott Graham

Yeah, I'm out of Mississippi, too. Yeah. You know, I always say the Mississippi Delta, you got Mississippi, Louisiana, West Tennessee, Arkansas, Boot Hill, Missouri is basically one big field, right. And Alabama, I mean, we're spread out across a larger geography than those 4 or 5 states are combined together.

Simer Virk

Yeah. So anyway, what is, I guess thinking about the program. Right. What is the main goal or what's the impact of the program?

Henry Jordan

So the main purpose of the program is to provide data to our stakeholders so they can make informed decisions about what variety will work best for their situation. Now there's a lot of things that go into that. When I started, the main thing that they told me was we need to have data more timely.

Henry Jordan

So I've strived real hard over the years to work on getting data put out to growers in time, where they can get early season discounts. Basically, at this point, they're able to see data as close to a real time release as we can get.

Simer Virk

As you harvest, you constantly be uploaded on the website, all that which is great.

Scott Graham

And you're doing a lot of quality work with, you know, ginning or, you know, getting soybean quality. I think soybean.

Henry Jordan

Quality, most of the quality is going to be cotton and forages.

Scott Graham

Cotton. But you'll even update yield before you've had time to, to get all that figures out. So at least those numbers.

Henry Jordan

Yeah. You can you can look at yield within depending on how fast the data gets to me. Once I get it, let's just say a week, two weeks, there'll be yield results on the website quality. That's there's a lot more work that goes into producing quality samples just for GNN or ground and forage samples. Then you got to send them off for analysis, wait for the results to come back.

Scott Graham

So as someone who works in a discipline where time when this is the most critical factor, I always appreciate when, I wake up and I have those emails and inbox, it's. Hey, Scott, we've uploaded a new cotton variety.

Simer Virk

And I like the personalization of those emails. It's like you're talking to me directly and say, hey, Simer, we have uploaded this. I feel like you're just telling me, like, hey, we just got results just for you.

Scott Graham

For the first couple of times I got one. I was like, I can't believe Henry just sent this straight to me.

Simer Virk

That's what I thought.

Scott Graham

He was like, oh, no, it does that for everybody. Yeah.

Simer Virk

So before we dive deep into a few other things work. Can you tell our stakeholders and growers what's the address for this website?

Henry Jordan

So I'm not going to give out the whole website. They probably won't remember it. But if they Google Auburn variety test and you can find the main page pretty easy. From there it's broken up by crop, so you can choose whether you want to look at cotton, peanuts, corn, whatever your interest is. And then once you click on that, it'll show you all the posts and everything available.

Simer Virk

And they can sign up for your post updates.

Henry Jordan

Yes, they can sign up for updates and get on the mailing list and they're able to sign up for updates by crop. So if you're a peanut farmer and you don't care about forages, you don't get spammed with a bunch of forage emails and vice versa. You can pick what you want to.

Simer Virk

And you know that is what you need.

Simer Virk

All right. I guess, talk a little bit about I know you say you work with a lot of different crops. So before us digging too deep into any of the varieties or other stuff, if we even want to share, that is you talk to me or even all the specialists about you got this tool where you can sort, filter and it tells you what did best.

Simer Virk

And also help in getting recommendations for next year.

Henry Jordan

Right? So a few years ago we started a new online variety selection tool. At this point, we've got all of our crops on there and it's got multiple years worth of data on there, multiple locations. So the cool thing about it, I guess, let me back up. So a lot of it is expensive. So a lot of the funding that comes is supporting website expense.

Scott Graham

Not access to. It's free. It's free for the users.

Henry Jordan

Yes. It's not a whole other thing. We're contracted with a third party to host and maintain the website. So doing that is expensive. And we're getting funding from all of the commodity groups. So checkoff dollars are going to help fund this. So if any of the growers or want to know for some of their checkoff dollars to go and it's going to fund this tool, that's not the only thing.

Henry Jordan

That's just one of the projects that it's going towards. So the tool in itself, you're going to look at whatever you're looking at by crop, obviously. So if we're going to look at cotton or corn or soybeans, you will go to that section. You can look at individual trial data. You can look at the weather data for the trial and the trial management.

Henry Jordan

You can see on what day it's whatever pesticide application was made, whatever the irrigation amount was made, on what the date was. You can compare that across the weather data on the season. You can see all that information. Then there's an analytics portion where you can look at multiple data fields. You can look at yield, test, flight, moisture, whatever, all simultaneously.

Henry Jordan

You compare it across locations, across time. You can see all that in one spot. It kind of, it gives you a good visual and helps you absorb a lot of information.

Simer Virk

Okay. So you kind of threw a lot over there. Almost sounded like a researcher for us.

Henry Jordan

Yeah.

Simer Virk

So if I was a grower and, I want to make a decision on some varieties for corn next year. Right. What would be the best approach? Just as a, you know, like is it I want to look at region specific thing. How would you approach it.

Henry Jordan

So it would depend on what I'm doing. Let's just for example, if I was in North Alabama, okay, I would probably look at some stuff from the North Region locations. And if you go to our corn stuff where we post our data, well, I put some shortcuts on there so you can get North Region summaries and you can look at the locations.

Simer Virk

Would you only look at 2024 data, or you want to look at least three years last three years of data. Or how do you.

Henry Jordan

Preferably you would want to look at multiple years worth of data. So with corn for instance, soybeans are also the same way. The turnover of varieties is so frequent that a lot of the times we don't get to build up 3 or 4 years worth of data. They hit the market, they come through the program maybe two years, and then they're swapping varieties and putting new stuff out.

Henry Jordan

So that can be an issue on some of the crops. Corn and soybeans are particular not particularly notorious for that. But if possible I would look at multiple years. You're also going to look at multiple locations. And then doing that on corn, we have irrigated and non irrigated trials. So one thing that hopefully everybody knows is the top variety in our dryland trial is probably not going to be the same variety in our irrigated trials.

Henry Jordan

So depending on whether you've got irrigated acres or dryland acres you're going to be want to look at different varieties.

Scott Graham

And one of the neatest things to me and Henry and I actually did this this morning before I talked on before we sat down to record. Looking at a cotton variety is you can sort it by consistency. So you can say this variety was in the top 10% of, you know, yield across all these trials in years. And so that gives you an idea of how consistent it can be and not just trying to figure it out for yourself.

Henry Jordan

Right. So we've got a variable or a data field that we call top yield group. And not to bog down in the statistics or anything like that, but in a single location, it will tell us that it's either 100% in the top group or 0% it's not in the top group. Well, when we start looking at multiple years, multiple locations, we can average those together and we can say 70% of the time this one is in the top group.

Henry Jordan

So that's shown us consistency across years and locations. That's kind of a quick and easy check to make sure that you're on the right track.

Simer Virk

You made a point about most of these varieties have a very quick turnaround and all that. Do you have the opportunity to test some varieties which from the companies like in 2024, that would still be available in 25, or they would make it available like the newer varieties or something. So that way it's a little bit more relevant.

Henry Jordan

So some of both, I'll get obviously I'll get a lot of commercial varieties that are currently available. So let's assuming that they don't do away with them next year, they should be available next year should be there for sale. Also of evaluate a bunch of experimental varieties, stuff that's not released yet or stuff that's coming onto the market.

Henry Jordan

So hopefully when a variety is released from a company, we've already got a couple of years worth of data on it when it hits the growers.

Simer Virk

So that's how they're able to do. Yeah, okay. And I guess maybe even want to have a pitch for our industry partners. How do you select these varieties or how do they or if someone want to be a part of.

Henry Jordan

So if someone wants to be a part of it for the industry guys, they sign up for updates. They can get updated when we've put out our call for entries. So one unique thing about the open variety testing program is it's funded by entry fees. So these companies pay to participate in the variety trials. And that's the only thing that funds the program.

Henry Jordan

So we don't we don't have any hard funding from the university to support the program. It all comes from major.

Scott Graham

Just to tie it back in the commodity boards are funding the website. Yes. And, entry fees from the companies fund your program, people who work for you and those.

Henry Jordan

Salaries, supplies, travel the whole nine yards. Yeah. So, if they if they want to participate, depending on the crop, there's some of them are structured a little bit differently, but they get to pick and choose where they want to evaluate their varieties. So if they have a corn variety that they think is going to do well in North Alabama, but it's not going to do well in South Alabama, they're only going to test it in the North region.

Henry Jordan

Selling for cotton. I see we have some varieties that do really good. And our full season or our early planted beginning to my planted stuff, but they don't think they're going to do well in the short season. The beginning of June planted stuff, so they'll test in one environment or the other. Sometimes they'll do both. So it's kind of up to the industry guys.

Scott Graham

And obviously they can't test every variety they want to sell. Right. But how to how do you determine or is it just on how much they're willing to pay for how many varieties.

Henry Jordan

Typically it's going to be left up to them, how much they want to invest in it? So it is it's I guess you can look at it two ways from their standpoint. They need the data so they can release varieties. They need it also so they can market their varieties. So if they do good in the variety trials and that's bragging rights.

Henry Jordan

And that could be used as advertising to help them sell. See.

Scott Graham

Yeah I see a lot of different meetings and stuff. I go to I see a lot of stuff from Auburn. So on on data slides and stuff.

Simer Virk

Yeah, yeah. And just a quick plug in again you are presenting some of the stuff at the Alabama Row Crops short course right. Yes. Yeah.

Henry Jordan

So I'm at most of the field days. The last couple of years I've been at Alabama crops short course. Looks like this year I may end up being in a couple of commodity meetings. We'll just see how it goes, okay? Okay.

Simer Virk

So we don't want to get into varieties, names and all that, but what would be some of the big trends or bigger picture from this year from your program if you want to highlight or talk about for you.

Henry Jordan

Sure. Couple of the highlights from this year. Corn. In North Alabama, and particularly we have, the Tennessee Valley Research and Extension Center, we have irrigated and and dry land with the same list of entries the same varieties in each trial. The dry land trial, it suffered pretty bad. We were in a drought, toppy. And it was like 101 bushels or so to 100 bushels.

Henry Jordan

The irrigated trial, the irrigated was 6.5 in irrigation for the season, same amount of rainfall, obviously, and they increased the yield by 2.5. It was like 256 bushels. So I would say in that instance, it was it was really neat looking at the results. But in that instance, irrigation definitely paid for itself.

Scott Graham

So I don't know how much six inches of water cost, but I bet you it's a lot less than 150 bushel.

Henry Jordan

Oh no doubt, no doubt. A couple of other things that we're seeing. And this isn't just a 2024 thing, but cotton, we have our full season trials. Like I said, they're planted at the beginning of my first week in. So in May, and then we have our short season trials that are planted last week of May, first week of June.

Henry Jordan

So even though they're planted at the same site, they've got unique environments due to planting date. And we see varieties perform very differently in one set versus the other. So if you're looking at planting cotton for 2025, if you can get all your stuff planted on May 1st or the first week in May, look at the full season trials.

Henry Jordan

If it's going to take you 3 or 4 weeks to plant, I would look at swap in varieties. I wouldn't plant the same variety that I started out with in the May beginning of June, so just a few things to consider on that would be is.

Simer Virk

The performance.

Henry Jordan

The performance, the variety, would be different on this planting dates and also, depending on whether it's a irrigated field or an on irrigated field, they're going to perform differently as well.

Simer Virk

Is our growers and again this my lack of knowledge on the ground. Or the growers making a decision about next seed right now or do we get some time or how does that where are we at with that?

Henry Jordan

Corn? I would think that growers are starting to get ready to order seed already. On some of the other crops where we're still a little bit early, but it's definitely in the back of their mind what they're going to do next.

Simer Virk

And they can definitely utilize some of this data.

Henry Jordan

Oh, go online, look at the varieties selection, look at performance.

Simer Virk

And that could you said something about save points. Growers can save points. So on that on corn.

Henry Jordan

A lot of the times if you order your seed early, you can get a discount on your seed. You can get it a little bit cheaper. So, planning ahead and being more timely, we can get the data out. Hopefully they can make better decisions and save a little bit of money on their seed. Okay.

Simer Virk

What about so 2025 for that any, any special considerations or anything but 2025 given you you have been doing this for a while. You have all this data.

Henry Jordan

Let's see for 2024. So just again, unique things that happen for 2024. We had a peanut trial in Fairhope. We normally do our peanut Overtown. There's no big deal this year. Weather got us. We ended up having to replant, and we planted what I would call ultra light peanuts down there. So I've had a couple of questions this year for, what do we do if we want to plant super light on peanuts?

Henry Jordan

Well, hopefully I'll have some data to show that this year. We planted it on June 18th, which is the lightest I've ever planted peanuts in my entire career.

Scott Graham

Yeah, sometimes, you know, we get a little bummed when things don't go exactly how we want it to in our research plots. But you always learn something, and no matter what, there's somebody out there that's that's has that situation on their farm. And so it definitely helps.

Henry Jordan

And with variety trials I know I know everybody thinks it's research. It's easy no big deal. But we run into the same obstacles that the growers have, whether it's drought or too much rain. We can't get planted on time because we don't have moisture or we have too much moisture. You know, we run into the same problems.

Scott Graham

Yeah, it was a weird year, particularly considering it was more or less the same everywhere, but you got to about the made of what, 10th or so and it didn't quit raining. And then it didn't rain again until after July the 4th, and it didn't quit raining until August. And then it didn't right until September. And that was basically everywhere.

Scott Graham

So just a really weird year.

Henry Jordan

It was, it was. And then even this, this fall, it's been no moisture, no moisture, no moisture. And then we finally got blessed with a little bit of rain yesterday. And either you made the decision to do something in before the rain and hope for the rain, or you're waiting on this moisture that we just got, and hopefully you're getting ready to put it in the ground.

Scott Graham

Maybe you can get a planner into the ground. Yeah, yeah.

Simer Virk

Well, same with soil sampling. We were you pulling some samples when it was super dry and it was just hard to get the probe even down more than two inches.

Scott Graham

Yeah, I imagine this this next week is you're going to be pretty busy for, for, you know, hopefully most folks are finished up with harvesting or approaching that. And now we got a lot to do. And in a short amount of time.

Simer Virk

Yeah. I guess other I'm just curious as to has anybody are you working with anyone in the, in the college or research side, like have anybody taken all your data, how long you've been have this data for.

Henry Jordan

2018, 2019.

Simer Virk

Six, seven, eight years, if not more. Don't a meta analysis on it based on the weather pattern, especially like the drought and all that to kind of because, like especially this year with right irrigation is their limitation. We know the drought is going to come at some point within the season. Are there certain trends from that data we could be utilizing and telling growers to manage their risk?

Henry Jordan

So nobody has done that, to my knowledge. I do have kind of a little side project going on with forages that I've been looking at some of that data myself. And I'm seeing some trends that go along with that weather. But with ryegrass forages, we have a lot of varieties that repeat year after year after year.

Henry Jordan

So not not only do we have 2 or 3 years of data, we might have seven, 8 or 9 years worth of data for a variety. So that makes it makes it really good for doing that type of analysis. We've been looking at it and I had a variety. I'm not going to name the name of the variety, but it came out pretty high on the list on our first forage harvest this year across multiple locations.

Henry Jordan

I had a couple my grow or industry people call and say, hey, your data is not right. There's no way that variety was early variety. There's no way. So they kind of scared me. I was like, oh, did I like a blue boot up mess up? So I started digging through the data and looking, well, this year's weather pattern matched 2024 weather pattern, I mean 2020 weather pattern.

Henry Jordan

And guess what? The same variety came out on top. So I'm seeing trends. I just don't have enough. Yeah. Analysis done to where I know I recommending that.

Simer Virk

It's not that you have these tools and website and all that. But now you got this almost I want to say gold sitting in a way as you accumulate more data that somebody can take that and do a meta analysis, like you said, we had a drought probably in 2022, in 2020 and this year, and it could have a very similar weather pattern.

Simer Virk

How can we learn from that? To help growers manage some of the risk or select varieties or so?

Henry Jordan

I would definitely like to move in that direction. I'm just not sure exactly how we're going to pull it off.

Scott Graham

Sir Henry, generally speaking, you mentioned like for your cotton, you had a full season, short season, and they're planted about a month apart. What what are the does? There's one planting day kind of out yield the other or are they similar. Not a fair comparison. What how do you and I got a point with that question. But I'll let you.

Henry Jordan

It depends on the weather if it.

Scott Graham

But that's actually my point. Yeah. And my point is I've said that word several times in a row now point. But trying to spread out your risk especially I mean, Alabama, we're 90 or more percent dryland trying to spread out your planting window over a period of time so that everything is not setting bowls or filling bowls when that drought hits is is important.

Scott Graham

And if we do have good data that shows, hey, you know, on either side of this planting window, you still got pretty good yield potential. That maybe gives you a little bit more comfortability in doing that.

Henry Jordan

Yeah. I always recommend, trying to spread your risk, trying to diversify. And on cotton planting dates. One way to do it. Another thing we can do to diversify is not put all our eggs in one basket, plant multiple varieties, so don't plant the same variety. It the early planting date through the season, but also don't plant all of your early fields in the same variety.

Henry Jordan

You know, swap it up, pick 2 or 3 good ones and that way if one fails, you still got 2 or 3 that can they can pick up slack. Hopefully you don't have a catastrophic failure.

Scott Graham

Yeah.

Simer Virk

Good good. Some of your variety data I know we were talking about this on the previous episode or one before that. On switching crop acreages based on the market and all that, but does the variety of data also help with that, or. I'm just kind of curious.

Henry Jordan

I would think you could use that into making a decision. I mean, obviously commodity prices are going to be the main factor a lot of these guys are looking at when they decide which crop they want to plant. But, you can also look at this data and say, hey, what's the yield potential? Well, it's all renewable to produce.

Henry Jordan

And then you can go in and say, well, if I'm only getting on a dry year, 30, a 30 bushels of soybeans, is it even worth my time to put soybeans in this year? You can you can use some of that data both ways.

Scott Graham

Of course. We go into every year thinking this can be the best year we've ever. You all think you can do this business with a gloomy outlook?

Henry Jordan

I don't necessarily have a gloomy outlook. It's more of all right. We had challenges. This year is water. Next year's challenge is going to be because we know they're not going to be the same. Yeah. No season is is the same. So this year it was drought. Next year it'll be something else. We just don't know what yet.

Simer Virk

Yeah well we're nearing the end of the episode. Any other specifics you want to mention about. You know people can find useful from weather from the program data or use certain.

Henry Jordan

Couple of new things we did this year. Soybeans. We did a route nothing ever todes graining on soybeans. Two of those trials are already available. You can look at the results. So on that something that's cool is we did, yield. So that's obviously the biggest thing. But we also did route samples. We dug routes, we did goal ratings on the routes and we put pictures of those on the website.

Henry Jordan

So you can look at the go ratings. You can look at the pictures. You can look at the yield. You can kind of get the whole picture of what's going on. We did that also with a cotton trial that we had out there was a small cotton trial. I kind of dipped my toe in it with, cotton this year.

Henry Jordan

So we might try to do something bigger next year and we'll have to wait. See a point.

Scott Graham

There, too, Henry, is that you? You do have a lot of different ratings on stuff for all of these, Amanda. Right. Her team comes out and does some disease writings on varieties of different. Yeah.

Henry Jordan

Amanda comes out. She does disease ratings on our small grains. They do some stuff on our cotton and all of our peanuts.

Scott Graham

And your your name attached off the.

Henry Jordan

Kathy Lawrence has helped me with those.

Scott Graham

Yeah.

Simer Virk

Do you put that data out there, too?

Henry Jordan

Okay. Oh, that's out there.

Simer Virk

So it's not just a yield.

Henry Jordan

It's not just yield. You can look at some disease stuff where we have data for that as well okay.

Scott Graham

And back. Back when when Auburn had a corn entomologist you had some insect stuff there too. Right. Which eating in those types of things, you know, generally speaking cotton varieties, I can I can give myself a little cover for not doing anything. It's not a whole lot of preference one way or the other for most insects. But, some of that kind of stuff is available, which is just another neat, neat thing you've got there.

Henry Jordan

This gave you pretty good with the non bt cotton last year I think it was. Yeah, yeah, yeah.

Scott Graham

So you really, that that was a very interesting day, you know. Hey that that gives a shout out to the, the scout on the experiment station in Hedland that he he found it, did not know there was a non bt variety in there. And he called Chris Parker and said, hey, you got a lot of worms in this field.

Scott Graham

That I was impressed. He found that variety.

Simer Virk

Any less anything last or I guess if I, if I would recommend anything from this episode. Remember over to.

Henry Jordan

Check out the website, sign up for updates. And.

Scott Graham

One other point I was going to make, Henry, you've got correct me if I'm wrong, but you've got like YouTube videos of how to use it.

Henry Jordan

Yes. I went through and made a web page that's kind of a tutorial type web page on how to use the database. I've provided shortcuts to a lot of the more commonly requested things state what tables, north region, whatever. So either way you can go in there, you can take the shortcut, get started, and then if you want to dive deeper, you can watch some of the videos and learn how to.

Scott Graham

An Extension agent should be trained up on how to use. But we may need to kind of do.

Henry Jordan

With your.

Simer Virk

Service for the.

Henry Jordan

Service. We've had a little bit of turnover, so we've got some new agents, but the ones that have been here for a while have been trying to.

Scott Graham

Yeah, yeah. And you, you can if, if they would rather provide a PDF version of it as well. Yeah.

Henry Jordan

I also do a PDF report that shows the yields and some of the stuff. It's not near as comprehensive and it's just going to be location tables. It won't be statewide summaries or North region summaries or whatever you want to do it. It'll just be per location, right?

Scott Graham

Yeah. All right. Well, thanks, Henry. Enjoyed, that overview. I still think, you know, even though you don't have an Extension appointment or whatever, this is one of the most important things Auburn can provide farmers. So we appreciate your time today. Kind of an overview, and, and all the work that you do, too, because we know how much it is, you know.

Scott Graham

So, with that, we'll log off until the next episode. As always, if any of us can ever, with Extension, can ever do anything to help. Please don't hesitate to reach out and let us know. Or if you've got topics or other things you'd like to hear us talk about, please let us know that as well.

Announcer

The Alabama Crops Report is a production of the Alabama Cooperative Extension System.