



Episode 24—Variety Trial Testing

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Announcer:

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

Katelyn Kesheimer:

Hi, and welcome back to another episode of the Alabama Crops Report Podcast. I am one of your hosts, Katelyn Kesheimer, Extension Entomologist.

Adam Rabinowitz:

And I'm your other host, Adam Rabinowitz, Extension Economist.

Katelyn Kesheimer:

I'm excited to be here with you, Adam. It's been a while since we've been in the studio together.

Adam Rabinowitz:

It's great being here with you as well, Katelyn. It has been a while.

Katelyn Kesheimer:

Yeah, and here we are at the end of August, beginning of September, which means crops are being harvested. And so our guest today is going to talk a lot about a bunch of different crops. I'm excited to have Henry Jordan, who is our variety testing manager for Auburn. Welcome, Henry.

Henry Jordan:

Thank you for having me.

Katelyn Kesheimer:

So as a new and exciting guests, we like to ask everyone a fun fact about our guests, so the listeners can get to know everyone. So go ahead and tell us a fun fact about you.

Henry Jordan:

Let's see, my family and I moved to Alabama in February 2020 when I took this position. And since then we've been exploring the state where the camper going around and checking out the different state parks and campgrounds.

Katelyn Kesheimer:

Well, February 2020 is a great time to start going outside and you've been here during some weird times, huh?

Henry Jordan:

Yeah, I got a month of normalcy before COVID hit.

Adam Rabinowitz:

And so I moved right in the middle of it. And in July of 2020.

Katelyn Kesheimer:

That's right.

Adam Rabinowitz:

I can say it is crazy to be moving during COVID.

Katelyn Kesheimer:

Yeah, I can only imagine. But one thing that hasn't stopped is agriculture and Henry are here today to talk about an overview of the variety testing program we have here at Auburn. So to get started, can you just talk about what the variety testing program does and the purpose of it?

Henry Jordan:

So at the variety testing program, we evaluate all the major row crops. And we do that most of the time in multiple locations throughout the state. We'll test experimental varieties and commercial variety side by side and when we do that, we'll report the data as a third-party unbiased research based program to all the

stakeholders. So they can look at the data and determine what varieties are best suited for their area of the state.

Adam Rabinowitz:

So that's a great purpose Henry, and I've seen a lot of the data from the variety testings, but we've got a very diverse agriculture here in Alabama. What crops are actually covered by this program?

Henry Jordan:

Like I said, it's a little bit of everything over 10 crops total. So I've got cotton, corn, soybean, peanuts, grain sorghum, and those are the summer crops. For the winter crops, I've got wheat, triticale, oats. We're doing barley for malting purposes, rod grass, and small grain forages, and we do the small grain forages in collaboration with the University of Georgia.

Katelyn Kesheimer:

So that sounds like a full time year round job, because right now is, as crops are winding down, you're thinking about putting more crops in the ground for these winter crops.

Henry Jordan:

That's correct. We've got corn coming out of the field right now. And at the same time I've got ryegrass and small grain seed showing up at the lab that we're packing and getting ready to get planted here in the next month or so.

Adam Rabinowitz:

That's really keeping you busy.

Henry Jordan:

It is. I think last count I had a total of 92 trials planned for the year of 2022.

Katelyn Kesheimer:

So 92 trials for next year, there must be something important about these data that you're putting out. What's kind of... what's the... why are variety trials so important for our stakeholders in the state?

Henry Jordan:

First thing we want are growers to be successful. And for growers to be successful, the first step is variety selection. They need to pick variety for their area of the state and within the state of Alabama, there's several different growing areas and regions. So we tested all of those. The first thing that growers probably going to want to look at is yield potential. So in our trials, we try to treat everything the same. We try to... the only

difference we want to see between varieties is genetic performance. So when we're looking at that yield, we don't treat one variety of different than the other, they're all treated the same. We're looking at a disease resistance, the grower might look at herbicide tolerance, whether it's Dicamba-tolerant, Roundup-tolerant, well, they'll want to look at insect resistance. They'll want to look at all these factors when they're selecting a variety.

Katelyn Kesheimer:

And I think you hit on something earlier that I want to reiterate is that, as extension and as a Land-grant University, these data are going to be an unbiased research based set of information that growers can pull from.

Henry Jordan:

That's correct. I'm not saying that anyone would tell a story, but when it's, when the salesman is trying to sell you something, you kind of have to take it at face value, but we're not trying to sell a product. We're just providing the information for the growers to make their decisions. So with that, they, I think they can put a little bit more faith in what we're showing them.

Adam Rabinowitz:

Absolutely, and that's a lot of important information there too. When you talk about disease resistance and herbicide tolerance and the yield potential, I mean, there are a lot of different variables there that growers can look at and understand what their options are while they can, they know they can rely on that information. So where can these results actually be found?

Henry Jordan:

Well, we have them all up on the Auburn University Variety Testing website. The web address is aes.auburn.edu/variety-tests with an S on it. If you'll Google that you should be able to find all our current results and the historical records back to the creation of the program.

Adam Rabinowitz:

When was that creation?

Henry Jordan:

For the best I can tell the early 1970s.

Adam Rabinowitz:

That is a lot of data for talking about. You said 92 trials for 2022 variety tests all the way back to the 70s.

Henry Jordan:

All the way back to the 70s.

Katelyn Kesheimer:

I can see the wheels turning in your brain, Adam, as a data nerd, you probably want to go get looking on that website.

Adam Rabinowitz:

Absolutely. I mean, I'm loving it. This sounds like a great research project.

Katelyn Kesheimer:

And we'll have that website and information linked to the variety trial and our Alabama Crops Report newsletter. But is there another way that people can receive notifications say, as you're harvesting a crop and get those data out right away?

Henry Jordan:

Yes, they can. If they'll go to the web, the variety testing website, there's a link that says click to subscribe. If they'll subscribe for notifications, they can customize the way they want to receive the notifications. They can pick their crop of choice. And then they have, I think, four selections, whether they won't preliminary data, final data, event notifications and so on.

Katelyn Kesheimer:

That's fantastic. So they're not going to get spammed with grain sorghum if they just want corn and cotton.

Henry Jordan:

Correct.

Adam Rabinowitz:

And I know sometimes data takes a while to get access to though, but when are these data available?

Henry Jordan:

As soon as I get the data, I pretty much drop whatever I'm doing to focus on doing the data analysis. So from the time of harvest to the time of the data's made available, I would say on average, we're probably a week to two weeks.

Katelyn Kesheimer:

What he's saying is he's making the rest of us look bad.

Henry Jordan:

That's exactly what I'm here.

Katelyn Kesheimer:

Because, it's tough gets harvested those data are available, and I'm still sitting on data sheets from earlier this summer. So thank you for that, Henry. So this is your second year. You've been here since February of 2020. What new things are with the program that you can talk about today?

Henry Jordan:

I guess the first thing would be, obviously we just talked about the data delivery. We're getting data out a lot faster than we have in the past. Some of the new things we've done, we added two new peanut trial locations for this year. In the past, we only had a peanut variety trial at the Wiregrass Station in Headland, Alabama. This year, we have additional trial in the Gulf Coast Station in Fairhope, Alabama. And we have another trial at the E.V. Smith plant breeding unit, which is located in Tallahassee, Alabama.

Henry Jordan:

We've added a grain sorghum trial at the Wiregrass location. This is the first year the program has tested a grain sorghum. And I want to say at least 10, maybe 20 years, we haven't done a grain sorghum trial. And while we're doing forest quality analysis on rod grass. So instead of just looking at yield data, we're looking at forest quality of data as well. That'd be crude protein, total digestible nutrients, relative forage quality. We just started last year. We did a Barley Variety Trial, which was done in collaboration with HudsonAlpha Institute for Biotechnology. And we're looking at bringing malting barleys to the State of Alabama for the growing brewing industry. Collaborated several times with other researchers, such as yourself, Katelyn on getting insect data from some of the OVTs. And then we have a new variety selection platform that we're starting to release data on.

Adam Rabinowitz:

So you mentioned insect data I have to ask, Katelyn, how are those fall army worms?

Katelyn Kesheimer:

You know, we're in it to the very end this year. Anyone who deals with grasses this time of year has probably seen them or has treated for them or gotten a phone call about them. We are in a historic fall army worm outbreak. If y'all are familiar with Ron Smith, our Meredith's Extension Entomologists, he says, we haven't seen anything like this since the late seventies.

Katelyn Kesheimer:

So it's pretty epic. But fortunately, none of the trials that I've been working on Henry would have been affected by army worm. It's a lot of pastures, hay fields, turf, home lawns, some soybeans, but for the most part, row crops have been spared. But if you have Bermuda grass in your backyard, or you enjoy a golf game on the weekends, you may see some brown patches. The good news is it's going to grow out of it. It's not going to kill

the grass. It's just going to defoliate it. But from an entomological standpoint, it's super interesting to be a part of this year where we have so many worms, but that's made nerding out on insects. But back to the task at hand, Henry, you mentioned a platform for these data. Can you talk about that?

Henry Jordan:

Yes, we started off this year with partnering with Media Sag and we've created a variety selection platform where it houses all of the OVT data. Plus we're adding in the on-farm data done by the Regional Extension Agents. So first off, all that information is in one location. Whereas before you kind of had to hunt around to find either, or the second thing about it is it's going to have already two to three years worth of data in there. You'll be able to go in and customize the way you want to do your averages, whether it's by region, by location, by years, you can look at data, all kinds of different ways. It's going to give you a lot more power with the data and hopefully allow stakeholders to make better variety selection decisions.

Katelyn Kesheimer:

Think you said something about this recently when we were talking about the program is that you can make it as simple or as complicated as you want it to be.

Henry Jordan:

That's correct.

Katelyn Kesheimer:

I think a lot of these tools and options within this program allow for that, depending on your level of comfort with technology on the computer.

Henry Jordan:

That's right and if someone is still old school and doesn't want to try to move to this new platform, somebody that's scared of change. We're still going to offer the data in the same PDF format as before. So they'll still have that option, but if they want to go in depth and look at it in more detail, they'll be able to do so.

Katelyn Kesheimer:

Have a feeling Adam's going to be on that website soon.

Adam Rabinowitz:

Yeah, absolutely. I mean, when I listened to you talk about this anyway, the first thing that comes to mind and I've said it on this podcast before is about risk management strategies. And this is one of those tools that can really help producers think about how to handle some of that production risk and where they think about where they need to focus most on within that production area and really dissect the data in a way that can give them the information they need.

Henry Jordan:

So, one neat thing about it is instead of just looking at one location table, like we've done in the past, you'll be able to look at across time and locations like we talked about, but you'll be able to look at different variables at once. So you'll have yield and let's just say, cotton, for example. You'll take your yield and all your quality factors for the Staple, Micronaire however you want to look at them. You can look at them all simultaneously and it will rank the varieties based on however you want to weight those criteria. So you can make yield count more, or you can make your quality factors count more or less, and then it will rearrange the order of entries based on your selection.

Katelyn Kesheimer:

And it sounds pretty complicated, but I've, you showed me this program and all those factors you talked about can be color coded. So it's as a visual person, it's really easy to see, "Okay, so this green box is going to be great for what I want, whereas this red might not be the best selection for me."

Henry Jordan:

Yes. It's color coded and it's got a heat map. So it shows, I believe the way it is colored is, green is going to be the highest yielding or the best one. Red will be the worst. And then they'll, it'll be a varying degree of color in between, depending on how high or low it go.

Adam Rabinowitz:

And for our listeners that may think this might be a little bit too much data overload. This can be really narrowed down though, to just a couple of factors in a very simple format.

Henry Jordan:

Exactly.

Katelyn Kesheimer:

And I know y'all did a training with our Regional Extension Agents too. So if producers have questions and want some one on one help, they can call your local REA and have them kind of walk you through the process and really pick those areas. You have that option to select say you're down in the Wiregrass and you want just selections for that area.

Henry Jordan:

Yes, it has a map feature. So it shows the locations on a map, you can filter out the locations that you're interested in, just by clicking on the pins on the map. So like I said, you can make your average is however you want to look at them, whatever locations you want to include or exclude.

Adam Rabinowitz:

So this is a really impressive program. And the, all the variety testing is really important for our state's agriculture. Is there anything you want to just give our listeners or growers, as some advice or information?

Henry Jordan:

I'll kind of give him the advice that I've heard, Steve Brown give several times is when you're making a variety selection. Don't just look at you, look at your other factors. You have to take into consideration, especially with the row crops nowadays, what kind of herbicide tolerance are you getting when you're buying stuff? So if you want to stick with one's kind of technology, you'll be able to look at the varieties, figuring out which one's fit that criteria. The other thing he always preaches is diversify. Don't put all your eggs in one basket. So if you're farming multiple fields and multiple acres, you probably don't want to plant everything in the same variety. You may want to try a variety, a couple of fields variety, being a couple of fields, and then try something new in some other fields, if you have enough room to split it up.

Katelyn Kesheimer:

Yeah. That's great advice because there are a lot of unpredictable factors. We talked about army worms and how we're just in this crazy outbreak year. And we never know with extreme weather events, disease outbreaks, insect outbreaks, but one of the things we can do as part of a good IPM strategy is reduce that risk and start the season off with good varietal selection. It sounds like these tools are going to be great for our growers. So Henry, thanks for joining us today on the Alabama Cross Report Podcast and we look forward to seeing all your data as it's rolled out immediately post-harvest this year.

Henry Jordan:

Well, as we speak, if they want to check it out, they can look on the new platform. I currently have 2021 data for corn at Bruton and Gulf Coast already uploaded.

Adam Rabinowitz:

And that website one last time again?

Henry Jordan:

Is aaes.auburn.edu/variety-test.

Katelyn Kesheimer:

Fantastic. Well, Adam, it's been fun. Hope to see you again soon and Henry, thanks for joining us. And we'll catch you next time on an episode of the Alabama Crops Report Podcast. And as always, if you have any questions, feel free to reach out to any of us here in extension.

Announcer:

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