



Episode 1—Cotton Update Feb. 26, 2021

Announcer:

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

Dr. Scott Graham:

Hey everybody, and welcome in to the Alabama Crops Report Podcast. I'm Dr. Scott Graham, Extension entomologist with Alabama Extension.

Dr. Amanda Scherer:

And I'm Dr. Amanda Scherer. I'm 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. So Scott, how are you doing today?

Dr. Scott Graham:

Oh, I'm doing pretty good. As we record today, it's probably the prettiest day of the year. How about you?

Dr. Amanda Scherer:

Yeah. I'm just excited to kind of get a break from the rain and the cold.

Dr. Scott Graham:

Yeah, yeah. See a little sunshine. Well today for our guest, we have Dr. Steve Brown, the Extension cotton agronomist for the state of Alabama. Steve, how you doing today?

Dr. Steve Brown:

I'm doing well. As pretty a day as it is though, it's not time to plant cotton.

Dr. Scott Graham:

Well, there's probably some folks in parts of Texas that are starting to get ready.

Dr. Steve Brown:

That's true. But not in Alabama, we hope.

Dr. Scott Graham:

What's our outlook looking like for Alabama? I know you've been out and about talking with folks and trying to get the pulse of the state, so what do you think cotton looks like?

Dr. Steve Brown:

Last year was a negative year for us at the end. I think we had a very good crop, but it turned out dismally from a yield standpoint, from a quality standpoint. But we've turned the page and we've seen cotton hit 86. Even today, it went over 88 cents. It retreated a little bit. With an 85 cents or better, it's definitely going to entice a good planting in 2021.

Dr. Amanda Scherer:

Now that cotton season is fast approaching, one of the first things that cotton producers have to consider, is variety selection. Do you have any thoughts in terms of how cotton producers can mix multiple varieties and spread those throughout across the farm?

Dr. Steve Brown:

The word you used was mixed, and I think that is a good word. We probably need to think about three to five varieties in our overall portfolio that we plant on the farm, because we need to spread a risk a little bit. We don't want to put all our eggs in one basket, and so we do pick several ones of those that we're familiar with. We probably also want to leave a little room to test some new things that are coming down the pike.

Dr. Scott Graham:

How would you suggest a grower... What percentage of testing on his farm should he do?

Dr. Steve Brown:

Yeah, I would probably want to commit 80 to 90% on what I know. What's tested and I've seen... and we've seen maybe for a year or two. But my new stuff, maybe relegate that to 10%, at the most 20%, the brand new stuff, the newest of the new. It'd be a small portion, but we're transitioning in technology, so we need to learn what's going to be the next best and greatest thing coming.

Dr. Scott Graham:

We know yield is primarily what's driving our variety selection process, but I like to think as a bug man, that our Bt traits are really important. How much consideration do you think folks are making for insect traits verse herbicide traits and things like that?

Dr. Steve Brown:

As important as insect control is, that's probably secondary because we've done well with our insect management thanks to you and others. I think the first fork in the road is making a decision on herbicide technology. And the two forks of course, are the 2,4-D trait with Enlist or the Dicamba trait package with Xtend. You make that decision or you could make a decision that maybe I could mix technologies on the same farm. Not many are going to do that, but that's possible. So you make that choice, and then that gives you maybe a narrow... it begins to narrow your selection on the choices that you'll put in your portfolio mix.

Dr. Amanda Scherer:

And I would like to add, even though Scott your first love is definitely insects, you do have to consider variety selection for diseases as well. Your different cotton varieties will vary in terms of how they respond to Target Spot, and even the new cotton leafroll dwarf virus, we see a little bit more incidents with like Phytogen 400 and 500. Some of those aggressive indeterminate varieties.

Dr. Steve Brown:

And I'd add to that, that we have several options now for root knot nematode control. And just this year, we'll see varieties that actually deliver both root knot nematode control, as well as reniform nematode control. As you move to the heavier soils, reniform is becoming more and more a problem. So with options there that'll be another part of the decision. Do you plant nematode resistant varieties?

Dr. Scott Graham:

Speaking of planting, I know we're starting to get ready to get fields ready to plant and things like that. At this time of the year what are things that cotton growers need to be doing to prepare to plant?

Dr. Steve Brown:

Well, it's awfully wet in a lot of places, so it's kind of held them back, but they obviously need to know about soil conditions, soil test. And do I need to address pH with liming? And what's going to be my fertilizer package? And fertilizer is actually going up, up, up in price. So that's something of consideration. But making sure I can get

which varieties that I want. That's going to be another thing, go ahead and making those orders and getting the seed treatments in place to make preparations for an April or May planting.

Dr. Amanda Scherer:

So Steve, speaking of planting, when should producers start thinking about planting some of these varieties?

Dr. Steve Brown:

You think about a lot of things. The biggest driver... We think calendar of course, which is we're going to think about planting cotton beginning sometime in mid May. Maybe earlier in some situation, but the real driving force is, what's our soil temperature. We want to see soil temperatures at 65 degrees at say the two to four inch depth for several days with a good forecast. We also have to think about soil moisture, and if I'm a dry land producer and it's the 15th or 20th of April, and I've got some moisture I'm going to have to plant. My ideal window may be later, but if I'm a dry land producer, I've got to take advantage of when I have soil moisture. And I would say moisture is a more limiting factor as we go south. I think soil temperatures probably hold us out, maybe as we go to the northern part of the state.

Dr. Amanda Scherer:

Steve, now that you're starting to talk more about soil temperature and soil moisture, it's really getting me to start thinking about seed quality. Especially from a plant pathology perspective, planting high quality seed can definitely help reduce the impact of seedling diseases like the damping-off complex and some seed rots. What are some of your thoughts just about seed quality in general for this season?

Dr. Steve Brown:

Seed quality is a huge issue. When I started in the cotton business, farmers were ordering seed by the ton and they were probably paying somewhere around \$30 a bag. Now with all the bells and whistles and the best seed treatments, that number may be over \$700, just for a single bag. So seed quality... They're paying a premium price, so they should get a premium product.

Dr. Steve Brown:

Let's talk about that a little more. One of the ways I'm thinking about seed quality... and a farmer should be able to get this information from any dealer, and that is what is the warm germ and what is the cool germ. And by law, it's got to be 75 or 80% warm germ, and that's really tested at an ideal temperature. But the real number that helps me think about seedling big and how good my quality is the cool germ. And that test is going to be conducted at about 64 and a half degrees. And the better that number is, the more confidence I have that this cotton is going to come out of the ground. We'd like to see a cool germ value 70% or greater. The industry standard... probably the floor is probably around 60%. Companies don't hate... They would not like to sell below that, they occasionally do. Warm and cool germ numbers are going to be something that I obtain to know how good is my seed.

Dr. Scott Graham:

Let's give the non-agronomists out there a... What is a warm germ and a cool germ?

Dr. Steve Brown:

Basically you put seed on a wet towel and keep it moist and you control the temperature. And the ideal temperature is I believe 86 degrees. And it can be a constant 86 degrees, or you can fluctuate it. Warm germ is just, "Do I have viable seed?" If it's viable seed and it's there for say five days, seven, eight, 10 days and it doesn't germinate, you know we don't have a viable seed. But normally at about four or five days in that situation, you're going to see a radicle root emerge on that. And so that's your measure of warm germ. Cool germ is more of a... you're doing the same thing, but you're doing it under a marginal temperature. As temperatures approach 60 degrees, cotton doesn't grow very well. Some would argue it ceases growth altogether at 60. But with that marginal temperature, if it still germinates and forms a radical or a root, you know, "Hey, I've got pretty good..." "I've got aggressive seed that should come up under a variety of... no pun intended, but a variety of conditions."

Dr. Scott Graham:

It's important that we're protecting these seeds. A bag of cotton seed is certainly not an inexpensive thing to purchase for our growers. What are you looking at in terms of seed treatments? I know you're not the entomologist, you're not the plant pathologist, but what would you like to see on a seed?

Dr. Steve Brown:

Well, the seed treatment that usually from a company, you can buy a base treatment or premium treatment, and some offer a mid range. The base is simply going to have one or two fungicides, and then an insecticide, such as a Imidaclopride, that's going to protect it from a storage standpoint to keep stuff from eating it while it's in the bag. Then you step up from there. On your premium treatments would include multiple fungicides, higher rates of Imidaclopride, and then some sort of Nematicide type treatment. My opinion is that... back in the mid 2000's when we really converted the business to seed treatments, we went away from in-furrow treatments or in-furrow sprays even. And we opted for convenience rather than efficacy. I want some kind of protection, whether it's a seed treatment or a spray, or an in-furrow or granular treatment, particularly for thrips. But the seed treatments help us, but they're not outstanding if we have significant pest pressure of the three different pests, they're not great in that regard.

Dr. Amanda Scherer:

Steve, how would you compare doing a seed treatment versus an in-furrow treatment or a combination of the two?

Dr. Steve Brown:

Well, the seed treatments, again, are easy to do. You buy it from the factory, or you can get a downstream treatment at your local dealer. And when you get a downstream treatment from your dealer, you've probably got a lot more options than you might have from the factory. And so you might just concentrate on one, maybe an insecticide or insecticide fungicide package. But the in-furrow treatments, you're going to be spraying one of our products... could be Imidaclopride, it could be Abound or some of your fungicide types, or you could be putting AgLogic type material in-furrow... You're getting a lot more active ingredient on that seed and in that root zone.

Dr. Steve Brown:

I think long-term data would support the idea that the in-furrow treatments, sprayed or granular, are going to deliver more consistent control for the different pests that we deal with. Now to spray in-furrow you got to be rigged up to do that. That takes a little extra time and on the granular part, many farmers have removed their insecticide hoppers in recent years. I talked with some yesterday, actually, that we're going back to that. It's time consuming to do the in-furrow treatment. And some of the products are a little hazardous to deal with. All that goes into people's mindset, as they think about seed treatments or other options.

Dr. Scott Graham:

Yeah. With your foliar... not your foliar, your in-furrow insecticides in particular, we've got to make sure we're calibrated right. Like you said, we've got to make sure we've got the equipment. For instance, in Prattville this past year on the research station, we did a trial and in-furrow acephate did not look very good, but we planted. It was cold. It was wet. We got a lot of early season rain. And what we think happened was we just leached out that insecticide before the roots... the seedling really started growing and the roots were able to uptake that insecticide. That's something with the seed treatments. I won't call it foolproof or dummy proof, but it's about as close as you can get really in insect management. But like you said, you don't always see as good control, particularly under high pressure situations earlier, planting cotton when the plant's just not growing as well. I would agree with that.

Dr. Steve Brown:

And I'll add one thing as we progress through the planting season, the planting window, and as the conditions get warmer... and I'm assuming we got adequate soil moisture to germinate the crop... some of the treatments become less critical because the cotton's going to come out of the ground very rapidly anyway. As we get later in the season, I'm very comfortable with maybe just getting by with a seed treatment.

Dr. Amanda Scherer:

Steve, what would be some of your overall take home messages for the do's and don'ts of seed treatments that you would want growers to take away from this podcast?

Dr. Steve Brown:

My biggest thing is do something for thrips. If you're naked out there, you may get by 1 out of 50 times. I just think you've got to have some protection, whether that's a seed treatment or in-furrow spray, or you spray it when it comes right out of the ground. I just think thrips are so prevalent and can be so devastating in certain years. I guess that's going to be my biggest thing. Maybe the second thing is, if I have intense pressure, I'm going to look beyond the seed treatments. I'm going to do something else to supplement that, or maybe to even displace that to get better control, whether it's a serious seedling disease threat, or I expect significant thrips pressure or if I know I have a nematode problem, I'm going to do some different things.

Dr. Scott Graham:

Steve, what about our variety testing? Can you give us a brief overview of what you all are doing? I know you've got a lot of variety tests and things across the state. And these are on-farm trials. A lot of them that are helping growers see in a real world situation, how are these varieties?

Dr. Steve Brown:

We have two programs, two sets of testing, and one would be on the different experiment stations, such as the Wiregrass station or Gulf Coast or E.V. Smith or the Tennessee Valley or Prattville. We'll have what we call the official variety trials, which would be small plot information. And in those trials, you might see 30 or 40 or 50 different varieties. And so those are going to give you maybe genetic potential in a very uniform setting and maybe give a measure of agronomic potential. And then what you referred to was the on-farm trials that we have north and south, and we're going to hopefully have maybe 15 or 20 of those scattered across the state. But as you mentioned, those would be with farmers. Those would be planter width wides by the length of the field, and a couple of revocations usually. It would be farmer management, farmer conditions, and we'd get weights on that, fiber quality. We'd also do some growth measurements just to learn a little bit more about how the different varieties grow.

Dr. Steve Brown:

Usually in those sets, we might have 12 varieties. May have some 12th in the south and a little different set for the north. Those would be real world... that's real world data that we can compare with the OVT program to begin to provide information, to make the choices on variety selection.

Dr. Amanda Scherer:

Steve, you provided a lot of good information for producers today. Is there any final departing words of wisdom you'd like to give producers for 2021?

Dr. Steve Brown:

As we've got cotton to 85 cents, I'm not an economist, but I'd be booking some of my crop to protect it as we look forward. At 85 cents, we can make a profit there. So let's protect at least a portion of our expected production.

Dr. Scott Graham:

What was the quote that we heard yesterday? You can't go broke if you make a profit.

Dr. Steve Brown:

That's right. That's right.

Dr. Scott Graham:

All right. Well, we're going to close you, leave you, going to put you under the gun here, and we're going to ask for a number. What are our cotton acres going to be this year?

Dr. Steve Brown:

Okay. In 2019, we had around 520 or 3500 and 35,000 acres. This past year, the FSA number was somewhere around 445 to 450. I'm going to probably guess... at one point, I thought we'd be down 10% or more, but I'm going to say we're going to be in that 450,000 range. We might move a little higher given the price strength, maybe given some pressures on corn since fertilizer is so escalated in price that's... corn requires so much more fertilizer. Maybe we'll see a slight uptick in cotton acres, or it could be flat in that 450,000 range.

Dr. Scott Graham:

All right. Well, Dr. Steve Brown, thank you very much. We appreciate your time today on the Alabama Crops Report Podcast. As always, if we can ever be of any help to anybody, please don't hesitate to reach out and let us know. Amanda enjoyed it today.

Dr. Amanda Scherer:

Yeah, it was great. Thank you, Steve. We enjoyed having you.

Dr. Steve Brown:

Thank you all very much.

Announcer:

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