



Season 3 Episode 4 – Preplant Weed Control

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Announcer:

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

Scott Graham:

Hey, everybody. Welcome in to another episode of the Alabama Crops Report podcast. Scott Graham and Katelyn Kesheimer here in the roaming studios today. Katelyn, we're doing this by Zoom today.

Katelyn Kesheimer:

Yeah, we are in the digital scape today, because our guest and friend of the podcast, Dr. David Russell, is up in northern Alabama. Welcome, David.

David Russell:

Hey, good morning. Thanks for having me.

Katelyn Kesheimer:

David is our Extension specialist in weed science, and he has responsibilities in corn, soybeans, small grains, forages, non-crop and rights of way. And today we're going to talk about getting fields clean for planting and thinking about soil residual herbicides for weed control.

Scott Graham:

David, thanks for coming on today. How you doing up there?

David Russell:

I'm doing good. I just wait for the fields to dry up to get in and do some spraying. We've been pretty wet up here lately. Got a couple of frosts the last couple of weeks, and have set things back a little bit, but I think we're about ready to start rolling.

Scott Graham:

So you talk about that, I know the crop progress report came out. We're recording today is April 4th, so the most recent one came out yesterday, April 3rd, and that says we're approximately 21% planting for corn. Do you think that, does that number jive with what you're seeing?

David Russell:

Yeah, that's about right. We've seen most fields, at least those new tilled fields, most of them have already burned down with some type of herbicide. And just this last week, as we've hit a warm spell, in a somewhat of a dry spell, we've seen planters start to roll in the northern half of the state. I know we're, as usual, a couple of weeks behind the crops in the south part of the state, but we're about on time. We're about on schedule.

Katelyn Kesheimer:

Yeah, I know a lot of growers in yeah, central and south Alabama have started putting seed in the ground. But what about growers who haven't planted yet, and what are some considerations they can do as we're getting ready for weed control this year?

David Russell:

Yeah. So obviously corn's on the front of our minds since it's an early crop, and with that comes an earlier, at least a timely, burn down. And you know we think of corn and wheat, we think of these grass crops. For me as a weed scientist, I've said it a lot, but removing grassy weeds from a grass crop is probably the most difficult, and ryegrass comes to the top of that list. Removing ryegrass in a timely manner is of utmost importance because of just how aggressive and competitive it is to corn seedlings.

Scott Graham:

Speaking of, you know, burn down, from your perspective, when do you want to see a field burned down in corn? And from, I guess, from a cover crop, and I don't know if it would be different from just, you know, winter vegetation out there.

David Russell:

Yeah, you know, depending on the cover crop, and how much biomass you've got out there, obviously, we'd like that cover crop completely dead at the time of planting. So if that means 2 weeks, if that means 30 days, you know, it depends on that farm and the biomass that's out there. When we think of ryegrass pressure and those Volunteer stands of Italian ryegrass, you know, personally, I'd like to see those big clumps completely killed at least 3 weeks to 4 weeks prior to corn planting.

And if we're using some systemic herbicides like glyphosate or clethodim, those have to go out in a timely manner, because generally throughout the months of February and March, it's going to be cooler. Plants aren't growing as aggressively, and so the activities that we're expecting to see from each of those herbicides are going to be just generally slow.

Katelyn Kesheimer:

I think, Scott, that you asked that question because you want to follow up with some information on insects and burn down.

Scott Graham: So why don't you do that for me?

Katelyn Kesheimer:

Well, I agree, I think, yeah, 3 to 4 weeks, 30 days if you can, to get rid of that green bridge to stop early season corn pests from being a problem, because for a lot of our corn insects, specifically early season pests, we don't have rescue treatments. And so if you get off to the wrong foot with insect control in corn, then you can really be in a tough situation for managing those pests.

Scott Graham:

Yeah, David didn't really take the bait I was expecting. So we want to plant green and have biomass and all that kind of stuff, but I guess when most of these are grass weeds, he's kind of got a point there that hey, it's hard to kill those. One thing we're starting to see probably more and more right around are these clumps of Italian raw grass that are still hanging out there. What's the deal with that?

David Russell:

Yeah, I think there's a little bit of confusion between what we call typically annual ryegrass and Italian ryegrass. I often hear those terms used interchangeably. Technically, they're both annual ryegrass. They're the same genus species, but I think you see different bio types. I think it's slightly different genetically. I think the morphological traits are slightly different in just the way at least the Italian ryegrass grows, especially this time of year. If you think about annual progress, it germinates in the fall. Soil temperatures typically around the upper fifties, low sixties whenever those begin to germinate along with other cool season annuals.

When we think of annual ryegrass, I think our minds, or at least my mind, goes to a lot of the commercial varieties that are often used in forages. The Marshall varieties, the Gulf varieties, for example. Those come up in a uniform stand and are relatively easy to control if we have to, just because it's a uniform stand, and we can get that control, or at least use that utilize that whenever they're vegetative.

Italian ryegrass, on the other hand, I think is different enough genetically that it creates a really robust clump. And it may germinate in the fall and then by the time spring rolls around, you've got this big established root system here that we're trying to deal with. And so it's more aggressive, it is more robust, and single applications, a lot of times, of herbicide just aren't effective to kill that.

You asked the question about how soon ahead of corn planting that we need to kill these weeds. We got to think about label restrictions as well, because if we're using a product like clethodim, that's a minimum of 30 day plant back to corn. And so clethodim, just like glyphosate in cooler months, is slow, although both of those products are active on the ryegrass clumps. It's going to be relatively slow to work. So you may spray that 30 days ahead of when you plan to plant corn, and then you get within a week or 2 of planning to plant, and then you're sitting there wondering if that herbicide's even gonna work. So if you had those big, robust clumps out there that have not yet died, we often go to the paraquat products or those systems that may be a little bit more effective, maybe adding a group 5 like atrazine ahead of corn or metribuzin ahead of soybeans, or maybe Diuron ahead of cotton with that paraquat for a more effective kill with paraquat.

Scott Graham:

These tend to be worse or better or indifferent in say a no-till field versus having conventional tillage, or?

David Russell:

Yeah, you'll tend to see a lot of the bigger clumps in no-till fields, just because you know, especially if the disc didn't run in the fall, those plants that we're trying to get established weren't interrupted. And so you've got the entire winter for these plants to slowly establish that root system, and by the time the spring rolls around, especially in no-till systems, they're well established. And so if tillage is an option in the spring, a lot of times, if you haven't incorporated a herbicide in that program, tillage just simply isn't gonna be effective by itself to kill those big clumps. It'll completely turn upside down, but with the moisture that we have throughout the month of February and March, it will still sit there and continue to grow.

Katelyn Kesheimer:

So we're talking about before planting corn, some options. What about corn that's already emerging, especially in the southern part of the state?

David Russell:

Good question. Yeah. So obviously, for weed controlling corn, atrazine tends to be our backbone for the annual weeds, getting those out in a timely manner. You know, typically, we'll go out with two and a half quarts of the four-pound atrazine. Typically about a quart is applied at planting to get us off to a good start with our burn down, and then we'll come back early post with the remainder of that product. And so that will at least get us into the middle of the growing season, and hopefully in moderate to light weed pressures, hopefully that will allow us to get good canopy coverage.

But the morning glories tend to be a problem late season in corn, and so we have to think of those as soil residual herbicides, you know, like the group 27s, Tembotrione or Mesotrione, and that will be effective into the soil to get us further into the growing season to minimize that morning glory emergence.

Scott Graham:

You got anything new coming out that'll help fight any of these problematic weeds?

David Russell:

As far as herbicide active ingredients, you know, there's not been technically a new introduced herbicide active for many years. Companies do continue to come out with slight modifications of actives and in different tank mixtures of different actives, or they're bringing a certain active over from other markets. But I will say that Reviton is one that we've been looking at for the last couple of years. I've seen some adoption across the state using Reviton. Reviton's a PPO, so if anyone has used Sharpen it's the same class of chemistry. And, in fact, Reviton has the same use rates as Sharpen, just with not as much soil residual as Sharpen has. So Helen Agro is touting that as a tank-mixed partner with glyphosate or clethodim to add some grass activity with those applications. And so although it will provide a little better grass activity than Sharpen. If you've got marehail, I'd still keep Sharpen in the tank, because Sharpen is still superior to Reviton when it comes to marehail. But for grass weeds, I think Reviton is a good tank-mixed partner with something like clethodim or glyphosate.

Katelyn Kesheimer:

So we've been talking primarily about corn and pre-plant for corn, but what about some weed management strategies to consider ahead of soybean planting?

David Russell:

Yeah, good question. Hopefully, growers still have a little time to plan ahead of soybean, being early April right now. But the same thing applies in corn. We want to consider the history of our fields regarding the weed pressures that we anticipate. And so going out with a timely burn down is really important, and having those fields clean by the time the soybean seed goes in the ground.

So pre-emergence for soybean, we typically rely on the S-metolachlor products like Dual or Boundary, or the pyroxasulfone products like Zidua or metribuzin. That's in several different products, like Boundary or Authority or Fierce. So that gets us off to a really good start as a pre-emergence.

We've often found in our research trials that 2 and 3 way actives in a tank mixture do a whole lot better than just single actives in weed control and soybeans. So putting those out in a timely manner will at least keep our fields clean hopefully up into a canopy coverage.

I think a lot of producers kind of got into a bind last year, because either we had product shortages or prices were too high coming off of the Covid years, and I saw some producers either put out too little or completely skip their pre-emergence applications at planting, and then it turned off dry, and so that was not a good scenario, and it left us trying to figure out what to do mid-season to control a lot of aggressive weeds like pigweed.

So if you've got pigweeds in the mix, obviously, we've got our herbicide traits, that's either Enlist or the Xtend, or just Roundup Ready. And so obviously we have for Enlist 2,4-D and/or Liberty, and then with Xtend, those are the dicamba platforms. And so, if you have any escapes midseason, like the pigweeds or the teaweeds, or the

morning glories, use those, and if it's bad enough, add those residual post-emergence like the Dual Magnums, or the Outlooks, or the Lawrence, you know, or the Zidua products to get us through the end of the season.

Scott Graham:

Something else you mentioned there, David, that I don't know, you may have some feedback as well, but when I've been out about this spring talking with retail and distributors and folks, everybody's pretty comfortable with where they are right now with product, from herbicide, insecticide, fungicide. Everybody feels like they're in a good spot. That's primarily probably central and south Alabama folks I've been talking with, but I assume it's the same for north Alabama as well.

David Russell:

Yeah, I've not heard of any big shortages this year. I think shelves are pretty well stocked and inventory is there, and so we should be off to a good start this year.

Scott Graham:

Well, you got any other things to talk about or updates from your weed science program that you'd like to mention?

David Russell:

Well, obviously spring for any of us has us really busy, and so we're in a full swing. I am happy about the state of our weed science program through Auburn. We've got 4 or 5 weed scientists on board now, including myself. Last fall we introduced Dr. Maity. He came to us from Texas A&M, and so he's getting his program started. He's got a couple of grad students right now. Those students are doing statewide weed collections.

And so for anybody out there listening, if you have a population of weeds, whether it be pigweeds or annual ryegrass, or whatever it may be, that you suspect may be resistant to certain herbicides, let us know. We'll send grad students to come sample. The plan is to screen a lot of those problematic populations in the greenhouse and figure out what kind of statewide resistance that we have.

We've got a lot of grad students this year under various professors on the main campus that will hopefully compete in the Weed Science Society of America's weed contest this year. So that's really exciting. So we've got a good group that's currently in training, and that team covers all aspects of weed science from sprayer application to weed identification to herbicide symptomology to farmer problems and calibration. So it's a very good training opportunity, and I think the future of the weed science program through Auburn is looking up. It's really strong right now.

Katelyn Kesheimer:

That's great to hear, and that you have the next generation of weed scientists being trained up in your program. I do want to ask, you mentioned that growers can contact you all if they suspect problematic weeds. What's the best way they can get in touch with you or someone else from the program?

David Russell:

Yeah, you can contact me by phone. That's probably the easiest way. But I'll have my email out there, too. We can add that to the end of this podcast, or look me up through the ACES website or the Auburn University website. But I would say phone, call or text is probably the easiest way, and then we obviously communicate by email.

Katelyn Kesheimer:

Well, David, thanks so much for joining us and giving us those early season weed control updates, and I'm sure we'll have you back on the podcast later in the season as growing season gets underway, and we have weed that are coming up that need to be controlled.

David Russell:

Yeah, thank you. Just call if I can ever help.

Scott Graham:

All right. So thank you. Thanks, David. Thanks to all of our listeners. We appreciate you all signing in to each episode, and if you ever have any feedback or need anything from any of us, please don't hesitate to reach out and let us know.

Announcer:

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