



Episode 30 — Winter Wheat and Weed Management

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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. A couple of entomologists are on host duties today. Scott Graham and Katelyn Keisheimer. Katelyn, how's it going?

Katelyn Keisheimer:

It's good. The sun is shining, the temperatures are dropping and so all is good in Alabama.

Scott Graham:

Feels like fall out there, it's nice.

Katelyn Keisheimer:

Yeah, it's been a long hot summer. So I'm super pumped for this.

Scott Graham:

Yeah, yeah. Starting to get some cotton defoliation, corn harvest seems like it's wrapping up or very close to if it hasn't already. Soybeans have started in some parts of the state and so it's a fun time for me anyway.

Katelyn Keisheimer:

Yeah. But now that things are winding down and we're harvesting, we're also thinking about planting our winter annuals and one of those is wheat. And to talk about some wheat control in winter wheat, we have Dr. David Russell, our extension specialist in wheat science. Welcome back, David.

David Russell:

Hey, good to be here.

Katelyn Keisheimer:

Yeah. So you are a pod veteran. You've joined us before and you're here to talk about wheat management, especially wheat grasses in winter wheat, and the challenges they can pose.

David Russell:

Yeah, well credit to you all for putting this out there. It's a good resource to get more information to our growers. And so I figured it's that time of year. Fall is here, it's my favorite time of the year, and so I figured it's a good time to get some information out.

Scott Graham:

He's been getting bored, these wheat scientists, they put out all their stuff and they're done before it even gets hot outside. And then we entomologists are out with drop cloths and sweet nets killing ourselves and they're just sitting in the office.

David Russell:

Sometimes.

Katelyn Keisheimer:

So David, remind us what areas you cover in the state?

David Russell:

So I'm located in north Alabama at the Tennessee Valley Research and Extension Center. My responsibilities in wheat management include forages, corn, soybeans, small grains, and also non-crop, rights of ways. So I cover a pretty wide spectrum there and having statewide responsibilities we put the mileage on the trucks.

Katelyn Keisheimer:

Yeah. I wouldn't know anything about that. So, glad to have you in this position and I feel like Scott and I have talked a lot this summer about the wet weather and what it has meant for insects and diseases. But my bug brain did not really think about the effects on wheat and how that affected things that happened this year and

also, planning ahead for this upcoming growing season. So can you talk about how all the rain we've had this year will factor into current crop patterns, maybe harvest and planting and everything that's going on in the field right now?

David Russell:

Well, yeah, as you mentioned, it's been a fairly wet summer. I looked at some numbers here a day or two ago and I think from April until here recently, 1st of October, we're somewhere like 125 to 130% above normal as far as rainfall across the majority of the state. And so that's not only delay some crops, it's made, first of all, some exceptional yields in corn this year, so that's been good. But as far as cotton, it's delayed a lot of management decisions in that crop and it's kind of delayed in a lot of our soybean acres and getting those out. And for those who have wheat or plan on having wheat acres, they've got to get that soybean crop out first.

Katelyn Keisheimer:

Yeah, this is definitely a double-edged sword. I was talking to a grower yesterday and they average 190 to 200 bushels of corn and this year they were at 235. And so we're going to once we look at all the numbers, some record yields for corn, but it also poses a lot of problems in other crops and as we're planting and planning for wheat management.

David Russell:

Yeah, and I think for that reason, we're a little bit behind getting wheat planted statewide. I think normal it's probably anywhere from 10 to 12% planted right now. As of this week, I think we're currently sitting at about 7% planted. That's not a huge deal, we're going to catch up. But as far as wheat are concerned, they're not slowing down. We got a cool front that came in last Friday and temperatures are feeling really nice out there. But with that rainfall ahead of that front and now some cooler weathers, these cool-season wheat are coming on.

Scott Graham:

Yeah, I would think we've really had the opportunity, in some of the fields I've seen and stuff, it was just so wet that we probably were late, early, spraying, some wheat, which meant we had more wheat to kill and you got varying levels of resistance. Just as Caitlin said, our bug brains, I would think we might be in a situation where we're kind of starting out with more wheat than usual. And I may be completely wrong on that.

David Russell:

No, I think you're right. Here in the last week from visiting fields here in north Alabama, I've already started to see some of the annual bluegrass and annual ryegrass starting to germinate.

Katelyn Keisheimer:

In addition to the ryegrass and bluegrass, you just mentioned, what are some key wheat species that producers need to be concerned about specifically when it comes to planting winter wheat this fall?

David Russell:

Yeah, so ryegrass, in my opinion, tops the list. And just when we're talking about wheat crops or even other cereal grains, even including corn, or basically any grass crop. Taking grassy wheat out of those grass crops is probably the most difficult part of my job. We've got some options when it comes to broad-leaf control in these grass crops. But man, it's tough trying to take grassy wheat out of other grass crops. And so annual ryegrass is one, the *Poa annua*, the field brome, the bromus species, little barley and annual fescues like rat till fescue, all those, they're actually germinating the same time we need to get wheat in the field. So the wheat crop and these grassy wheat are really similar in the way they germinate and grow and so it comes down to really time management techniques to get a hold on them.

Katelyn Keisheimer:

Sounds like these headache wheat are just riding the coattails of the wheat and then benefit from everything we're doing to prep the field and the weather and the rains.

David Russell:

Yeah, that's exactly right. As far as broadleaf, we've got things like hen bed and chickweed, buttercup emerging right now. And all those really aren't a huge factor as far as reducing wheat yields, I don't think. It does compete with crop establishment.

Scott Graham:

So how much, I know we're really shifting into reduced and no-till, would it be a little bit easier to control some of these if we tilled the fields prior to planting wheat, and I'm not much of a wheat guy, people may not, even in conventional, they may not be tilling wheat fields before they plant, I don't know.

David Russell:

Yeah, there's some of that going on, or at least some minimum-till situations, where they use the rototill to just incorporate that previous crop residue into that top surface layer. That helps some just delay the germination of those that are sitting on the surface. But still, I think that we can't, as far as growers managing wheat acres, I don't think you can overstate the importance of burn down because things like ryegrass are still going to germinate and you want to get off to a good start as soon as that wheat's in the ground.

Katelyn Keisheimer:

All right, David, let's talk management strategies. You just mentioned burn-down and how effective that can be. What else can producers do, primarily for these grass wheat's that are in wheat that are really hard to control?

David Russell:

One note on the burn down situation. We've all heard in the news here recently there are some supplies chain issues, and we're starting to see that with our crop products. And so that also applies to the herbicide. I'm

hearing that we're seeing some roundup shortages and so Roundup, Orgamoxin, is typically used in a lot of our burn down situations. But if you can't find it, we may just have to rely on Gramoxone. And so the typical use rates are about a quart per acre, that two-panel formulation, if you don't have anything else, at least try and utilize that to get off to a clean start. And then once the wheat's planted, I would say the active pyroxasulfone is the backbone of the grass wheat control in wheat right now. So that's found in products like Xigduo, Fierce, and Anthem flex.

David Russell:

And so, those are typically applied between wheat spiking in the two to four-leaf stage, Xigduo is straight pyroxasulfone. We do have the option with Fierce EZ in Alabama to go out two weeks pre-plant, but that's sometimes a really short window. Fierce EZ could go out, I think three ounces, two weeks prior, but that's limited only to no-till or minimum-till fields. And so Scott, you mentioned the option of tillage which would not be an option here for the risk of crop injury. So you've got that option up front before wheat ever goes in the ground, but once the wheat emerges, I think you're pretty much set with either Xigduo Anthem flex. Both of those have done really well for us trying to catch that grass wheat when they're really small or before they even germinate.

Katelyn Keisheimer:

So it sounds like some recommendations Scott and I were making this past summer for army worms. We have our standard recommendations, but it may come down to what can growers get their hands on in a time where we do have excessive wheat from the wheat growth from the rain, and then also supply chain issues that we've seen over the past 18, 20 months or so.

David Russell:

Yeah, it's exactly right. And you know there's another product too. If that window is missed with either of those products, either before or right after wheat is planted, Axial Bold has been a really good product for us in the past couple of years through research plots, that's just a mix of oxidant and axon prop a group one chemistry there. It doesn't have any broad-leaf wheat control, but it does specifically target those grass wheat like annual wire grass and some of the annual blue grasses and so. I think you could put that out up until the early boot stage for wheat. So there's a larger window of opportunity there with that product.

Scott Graham:

What happens if for whatever reason we're not able to control these wheat in a timely manner? I imagine the later we get the harder it is, and you kind of hit on that a little bit, but we've seen a lot of yield hit and things like that, or is it issues with harvest contamination if some things get seed heads or?

David Russell:

Well, we're going to have some wheat fields. The tough thing there, especially going back to the grassy wheat, because of the growing stature and the biology physiology of a lot of our grassy wheat and a wheat crop, they're

so similar. So when you get a mature wheat crop, you get the wheat heading out at the height where we need to harvest well. Well, the ryegrass and even the brome seed heads are also going to be there at that same height too. So you mentioned harvest seed contamination. Once you get to that point, that late in the season, it's almost impossible to get that out of a wheat crop. And so you're going to have some issues the following year. In fact, I saw a lot of fields here in north Alabama, early this spring, where there was some ryegrasses and bromes missed in fields in the fall of 2020. And so that got harvested, likely some contamination issues there. And so I expect to see some volunteer stands of these grass wheat in those same areas.

Katelyn Keisheimer:

I do know this much about wheat is that another reason we want to control them is that they can act as a harborage or an alternative host for insect pests and diseases in many cases. And so it's just more places for these pathogens, these pests to hide out and then move into the crop when the timing is right or wrong in many cases.

David Russell:

That's it. And I think it delays crop maturity too. And yes, I do think if the populations are bad enough, you can see some yield hits.

Scott Graham:

Well, okay, this wasn't necessarily on the docket for today, but since you mentioned insects and stuff, you got any thoughts about at least fall season management of wheat for insects?

Katelyn Keisheimer:

Put me in the hot seat. Yeah, absolutely. I think the insect of the year may have... We thought it was going to be cicadas, but it ended up being army worms, and thinking about army worms as we're planting these winter annuals is going to be really important. We've had a lot of questions about deer plots and wildlife food plots and things. And if it was maybe a couple of weeks ago, I'd be a little bit more concerned, but over the last week or so, we've seen a huge drop in army worm numbers around the state. That's not to say that they're not around, but with these cooling temperatures shorter days, they're definitely less and less. And so I would recommend if you plant wheat, get out there and scout it, don't just spray proactively, but make sure you're looking for the army worms because they can do some harm and extensive damage when the crops are really young.

Katelyn Keisheimer:

And the other pest that we should be thinking about is aphids. This time of year, we can get aphids in the wheat. And we know that they have the potential to vector the Barley Yellow Dwarf Virus. And so over the next couple of months, check your wheat for aphids, they'll transition into English grain aphids in the springtime. And if we get too late in the season, the virus may already be in the field. And so that's something you want to think about as soon as the wheat goes in the ground all the way through January or February make sure you're staying on top of any potential aphid infestations that can then lead to yield loss because of Barley Yellow Dwarf.

Scott Graham:

And my understanding is that it's really more of the fall infestation, that results in that transmission of BYD. Right?

Katelyn Keisheimer:

Yeah, absolutely. We can pick it up from English grain aphids flying in the spring, but where you're going to see that yield loss is when the wheat gets infected in the fall time. And in some cases, I mean, it's called Barley Yellow Dwarf, right? You get stunted plants, some don't even head out in the springtime. And so this fall period is really where you want to be looking for aphids. And so we can't tell by looking at them if they carry the virus, but they're really easy to control with a simple low rate [inaudible 00:15:19] we can get rid of those aphids. So, yeah. Thanks for pointing that out. And as we wrap up here, because I want to go play outside. David, what final parting words of wisdom do you want to leave us and our listeners with today?

David Russell:

Well, first of all, it sounds like fall is a perfect time to get your insects controlled and your wheat controlled, be early, be proactive. And as I mentioned grassy wheat are typically our biggest issue in a wheat crop. And I hate to keep harping on these two annual ryegrass and some brome species, but it really is some of our bigger issues in a wheat crop. And look if you stay proactive and stay on top of this wheat management for a couple of years, wheat-like annual ryegrass, really doesn't have that good of soil seed viability. So I'd say two consecutive years or more of proactive management for annual ryegrass, I think you'd pretty well have it under control because that seed just doesn't remain viable that long in a soil seed bank. So again, stay proactive, continue to scout your fields and it should be in pretty good shape.

Scott Graham:

All right, well, David Russell and reoccurring guests, we appreciate you coming on today. As always we appreciate our listeners out there that are tuning in each week and if we can ever be of any help, please don't hesitate to reach out and let us know.

Announcer:

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