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**Episode 21—Disease Issues in Row Crops, August 2021**

Announcer:

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

Dr. Katelyn Kesheimer:

Hey and welcome back to another episode of the Alabama Crops Report Podcast. I am your host, Katelyn Kesheimer Extension Entomologist. And I am all by myself today. We have no other co-hosts, it's just me. But fear not, we have a new and exciting guest. New because he's never been on the podcast before. So welcome to our extension plant pathologist and extension leader for the acronym of crops team Dr. Ed Sikora. Ed, welcome to the podcast.

Dr. Ed Sikora:

Well, thanks, Dr. K.

Dr. Katelyn Kesheimer:

Yeah.

Dr. Ed Sikora:

I haven't been called new in a long time, so thank you for referring to me as that.

Dr. Katelyn Kesheimer:

Well, you're in the hot seat today. Talking about, I can assume is plant pathology as a bug person. I don't go there unless I absolutely have to. But before we get into diseases, want to ask you something we've been asking our guests the last couple episodes. If you could tell our listeners a fun fact about yourself so they can get to know you.

Dr. Ed Sikora:

Back in the eighties, I lived in a trailer park up in Bondville, Illinois. It was a small community, but I was known as the tallest man in Bondville for five years. Even the [inaudible 00:01:17] was mayor of Bondville [inaudible 00:01:18] some people-

Dr. Katelyn Kesheimer:

You were mayor of Bondville, Illinois in the eighties?

Dr. Ed Sikora:

There is a rumor, but-

Dr. Katelyn Kesheimer:

That's a fun fact and good claim to fame.

Dr. Ed Sikora:

Yeah.

Dr. Katelyn Kesheimer:

So as the tallest man in Bondville, Did you have extreme responsibilities? Did you have to get everything off the top shelf for people?

Dr. Ed Sikora:

I'd have to clean off the roofs of the trailer park.

Dr. Katelyn Kesheimer:

Okay.

Dr. Ed Sikora:

We lived in the mobile homes.

Dr. Katelyn Kesheimer:

And did he get free rent for that or anything?

Dr. Ed Sikora:

Tomatoes from my neighbors.

Dr. Katelyn Kesheimer:

Okay. Yeah. That's not a bad deal. I'd take tomatoes to get stuff off trailer park roofs.

Dr. Ed Sikora:

Also, I was not bitten by the German shepherd I used to-

Dr. Katelyn Kesheimer:

Oh, so the dog knew that you were the mayor and not to be messed with?

Dr. Ed Sikora:

Yeah, I was pretty tall.

Dr. Katelyn Kesheimer:

Well, y'all can't tell because we're on a podcast here, but if you ever see Ed out in a soybean field somewhere, then you can see that he's the tallest person in a soybean field, probably.

Dr. Ed Sikora:

Always stand out in a crowd and in a field.

Dr. Katelyn Kesheimer:

Some may say you're outstanding in your field.

Dr. Ed Sikora:

Never heard that joke before.

Dr. Katelyn Kesheimer:

All right. So Ed, we're talking about soybeans today. What's your history with soybeans? How long have you worked with them?

Dr. Ed Sikora:

Well, back when I was mayor of Bondville, back in the late eighties, I was working on my PhD. I was working on a soybean cyst nematode for my PhD program. So back late eighties, early nineties, working on race studies and race population dynamics. And that's how I got my start. I was hired at Auburn back in '92 to work with tree fruit, and small fruit, and vegetable crops, pecans. And then when Dr. Gasaway one of our predecessors retired in 2000, I took over cotton and soybeans. I just added a couple of small crops to my rotation.

Dr. Katelyn Kesheimer:

Sure.

Dr. Ed Sikora:

Bill came back out of retirement, but he left soybeans with me. And I've had it ever since for about 20 years now, I guess, but yeah.

Dr. Katelyn Kesheimer:

Nice. And how was that switch from tree fruit and specialty crops to major row crops like soybeans and cotton?

Dr. Ed Sikora:

It was interesting because working with tomatoes and peach growers is one thing, but working with row crop producers is just a different animal in a way.

Dr. Katelyn Kesheimer:

Well you can't eat your research as well.

Dr. Ed Sikora:

No. I used to tell graduate students during my class always work with a crop that you could take home and eat.

Dr. Katelyn Kesheimer:

Yeah. That's why I started in sweet corn because can't eat field corn.

Dr. Ed Sikora:

There you go. I've seen you in a sweet corn patch a few times.

Dr. Katelyn Kesheimer:

Yeah, it happens.

Dr. Ed Sikora:

Cotton does not taste very good.

Dr. Katelyn Kesheimer:

Nope. And soybeans, no.

Dr. Ed Sikora:

No.

Dr. Katelyn Kesheimer:

No, grain sorghum.

Dr. Ed Sikora:

No.

Dr. Katelyn Kesheimer:

Okay. So we are here in the beginning of August. We've had what can be described as a weird year, but we say that every year. But lots of rain, lots of heat, lots of humidity. I imagine that leads to diseases.

Dr. Ed Sikora:

You would be correct.

Dr. Katelyn Kesheimer:

Yes.

Dr. Ed Sikora:

You'd be correct.

Dr. Katelyn Kesheimer:

So my bug brain can understand something about diseases.

Dr. Ed Sikora:

I thought they would start popping up earlier. But just in the last couple of weeks, we've seen a number of foliar diseases show up around the state. We have a soybean [inaudible 00:03:57] out at different research stations, looking for soybean rust. But I also use those to track other diseases that might pop up. So I've seen two or three just in the last 10 days that I was expecting. And there they were.

Dr. Katelyn Kesheimer:

So if I listened at all last year, it sounds like soybean rust was a major problem in Alabama in 2020. What are we seeing for this year?

Dr. Ed Sikora:

Well, I expected soybean rust to come back like a line cause last year was the worst we ever had. And due to some various reasons we could talk about, it hasn't. But just recently I picked up a frogeye leaf spot down in Escambia county, down in Brewton. And that could be a significant problem. Foliar disease, fungal problem for soybean growers, we've seen up to 40% yield loss susceptible varieties. So that's one growers should be aware of.

Dr. Katelyn Kesheimer:

Mm-hmm (affirmative).

Dr. Ed Sikora:

And also target spot, another fungal disease that also known to go to cotton started picking that up on soybeans and there are some varieties that are quite susceptible. And in fact to my [inaudible 00:04:56] is quite susceptible I noticed. So-

Dr. Katelyn Kesheimer:

Nice.

Dr. Ed Sikora:

... it's been pretty spectacular down there.

Dr. Katelyn Kesheimer:

I guess, as a researcher, it's nice to see a lot of disease, but growers never want to see that.

Dr. Ed Sikora:

I learned from Eddie McGriff. Have you ever, you know Eddie?

Dr. Katelyn Kesheimer:

I do. Yes.

Dr. Ed Sikora:

He doesn't like you saying a beautiful disease or a wonderful insect. So-

Dr. Katelyn Kesheimer:

Oh.

Dr. Ed Sikora:

... I avoid saying those words around Eddie.

Dr. Katelyn Kesheimer:

Well yeah, I'll stop, but there are some wonderful insects for the record.

Dr. Ed Sikora:

There are.

Dr. Katelyn Kesheimer:

So we mentioned weather. Is that the main reason we're seeing so many foliar diseases or is there something else going on this year that's lent itself to the increase in target spot or frogeye leaf spot? What you said?

Dr. Ed Sikora:

I would say it's mainly the weather. And if any of you have taken a general plant pathology course, they always show you that first day they'll show you the disease triangle. One corner will be the host, whatever it is. Other corner will be the pathogen. And the other corner is weather.

Dr. Katelyn Kesheimer:

I may have seen that in my time.

Dr. Ed Sikora:

I think Amanda says this about every time she's on the show.

Dr. Katelyn Kesheimer:

Yes.

Dr. Ed Sikora:

But most of our pathogens or diseases on soybeans are caused by fungi. 99% of your fungal diseases like it warm and wet. So just coming over today, I got saturated because I forgot that we're going to have our 4:00 thunderstorm like we do.

Dr. Katelyn Kesheimer:

Yep. Yeah, it was hot and humid earlier. And now that I dried off from being outside, walking over in the rain myself too. Yeah.

Dr. Ed Sikora:

This is my second pair of shoes.

Dr. Katelyn Kesheimer:

Nice.

Dr. Ed Sikora:

But so with those conditions we've had most of the growing season or during the latter parts here, these diseases are starting to take off, and they're just going to keep going. Unless we run into a dry patch come up later August or September.

Dr. Katelyn Kesheimer:

Yeah. At this point I don't anticipate dry patches. It just feels like every day, like you said, that afternoon shower and in some places just getting hammered with rain, other places just slightly hit with them.

Dr. Ed Sikora:

Yeah.

Dr. Katelyn Kesheimer:

So we mentioned foliar diseases. What about any other ones such as root or stem rots? Because I know those can certainly lead to headaches and yield loss.

Dr. Ed Sikora:

Well, I got a text from Tyler [Sandlend 00:13:20] up in north Alabama with... showed me some images, but he goes is this sudden death syndrome, which is one of the best disease names ever.

Dr. Katelyn Kesheimer:

I was going to say, that's amazing and also very ominous.

Dr. Ed Sikora:

Sudden Death Syndrome or SDS, which has its own problems.

Dr. Katelyn Kesheimer:

Yes.

Dr. Ed Sikora:

But he had showed me some pictures of plants that were interveinal browning, yellowing necrosis. And those are symptoms of Sudden Death Syndrome, which is a soil-born fungal disease. I like to call this more of a Yankee disease. We used to see it up north, north-central region. They just, they fear it.

Dr. Katelyn Kesheimer:

I take offense to that as a Yankee myself.

Dr. Ed Sikora:

That's all right, I'm from Chicago. So it's okay.

Dr. Katelyn Kesheimer:

It's all right.

Dr. Ed Sikora:

But down here, when I first saw it back in the early nineties, I got all excited about it, contacted some of my older colleagues in neighboring states and they said, no, no, that's a good sign. I go, what are you talking about? It's Sudden Death Syndrome. They go, no, that just means there's a lot of moisture in the soil, which is good for the crop, which means they'll probably have a yield-busting a crop this year.

Dr. Katelyn Kesheimer:

So is it isolated then? Is the plants that have that syndrome, they're suddenly dead as the name suggests, but the rest of the crop, it's not super widespread within a field?

Dr. Ed Sikora:

That's correct. In Alabama, we will see it occasionally up and usually in north Alabama, just in a few patches in the field, up in the north-central region of the U.S. you might see it across a whole field. So it is a major problem up there. But down here we just see it occasionally, maybe every three or four years. With years like this, where soil is saturated, it will kill those plants in that patch. But usually it's a good sign for the grower.

Dr. Katelyn Kesheimer:

Okay, cool. Well, what can growers do? So we're talking about the weather, and it's right for disease, and the disease triangle. So what do you suggest growers do in terms of disease control for any of these stem root or foliar diseases in soybeans?

Dr. Ed Sikora:

I think for as far as the stem and root diseases, there's not too much you can do. Just realize you have the problem, avoid areas if you can, but you're mainly going to be targeted for soybeans and you're going to be targeting the foliar diseases such as frogeye target spot. And then soybean rust starts to build up. That's another one, but typically a fungicide application at the R3, R4 growth stage. Try and get that on before the disease shows up, before a tropical storm shows up, and that will give you about three weeks protection.

Dr. Ed Sikora:

Use a good product. Some of the products where you have a combination of chemistry's was good. I would say, stay away from the straight strobilurin type fungicides. Because we have detected frogeye resistant populations resistant to the strobilurin. So go with a mixture of compounds. If you spray about R3, R4 that should get you through the season, and protect your yields, especially in a year when we have good, high prices for most of these commodities, it's a good year to protect your crop.

Dr. Katelyn Kesheimer:

Yeah. We've had one of our co-hosts, Adam, and we've had a few guests talking on about the prices and economics this year. And so it is a good year to maybe pull the trigger on some of those fungicides, if you think you need it, because it'll pay off at the end.

Dr. Ed Sikora:

Yeah, exactly. Some years when it's hot and dry, I say, ah, you might want to hold off and save that 20 bucks per acre, you're spraying fungicide. Because you don't need it. But this year I would say you need it. And it's a good year to protect your yields. And that's what you're trying to do.

Dr. Katelyn Kesheimer:

So you're talking primarily about soybean, but I know that you have state responsibilities for tree fruits, small fruits, vegetables, and corn in addition to soybeans. And so any other major disease flare ups that growers need to know about in any of the other crops that you cover?

Dr. Ed Sikora:

One I'd be concerned with, and I got some information from Eddie McGriff and Andy Page and Tyler, but we found Southern corn rust up in Lawrence County up in north Alabama the past week. It was a pioneer rep who found it and what I've been finding in south Alabama and most of the crop in south Alabama is kind of winding down, but I'm not sure where the crop is in north Alabama. And if that disease gets going in a field early enough, it could really dampen down the yield. So growers that are in north Alabama, that might be a tasseling and early reproductive stages scout your fields. See if southern rust is how widespread it is in that field that you might want to consider a mixed compound type fungicide to protect those yields as well.

Dr. Katelyn Kesheimer:

And if I know you, Ed, I know that you'll put an article in our Alabama Crops Report newsletter, which is probably going to have some great pictures of southern rust, and corn, and maybe some recommendations for growers that they can refer to.

Dr. Ed Sikora:

Yep. There's already... I wrote up an article over lunch just before I come to see you Doctor K.

Dr. Katelyn Kesheimer:

Great. Yeah.

Dr. Ed Sikora:

And on the southern rust situation, and if you go to that site, there's a link to a fungicide efficacy table that I work with with some of the Midwestern pathologists. Also, there's an article on soybean rust there, and also on some of these other soybean diseases I mentioned, but the that's a great newsletter. I try and get my information out there. And that's one of the better ways for me to get information out to the extension agents and to the growers.

Dr. Katelyn Kesheimer:

Yeah. And I'll just plug that newsletter. That is the written online version of our podcast on getting information out. And so check out the newsletter at the Alabama Crops Report newsletter on the ACEs website. And that comes out every other Tuesday with information like Ed just mentioned, and I promise we won't spam you. It's all just great information, updates, pest alerts, that sort of thing, events going on. All right, Ed, any other comments that you want to make or things you want to talk about that our growers should know about this year?

Dr. Ed Sikora:

And we're not concerned with soybean rust this year compared to last year, but I did pick it up in kudzu patches in south Alabama last week in four different counties. So it's developing, it's building up a bit on Kudzu, but it's still very low levels. And I don't think it will be a major concern, but it's one I'll be keeping an eye on for the next month or so. We saw some significant damages last year from soybean rust, worse than 20 years. This year not so much, but it's always out there, and it's always lurking. Much like me many times.

Dr. Katelyn Kesheimer:

Yes. I mean, you are tall and lurky. That's a great way to describe you.

Dr. Ed Sikora:

That'd be about it.

Dr. Katelyn Kesheimer:

Yeah.

Dr. Katelyn Kesheimer:

Well good. Thanks for joining us today, Ed. And like I said, y'all can find all this information and more on the Alabama Crops Report newsletter. And if you have any questions, as always feel free to reach out to any of your local extension agents or specialists, and I'm sure Ed is happy to talk about diseases any day of the week. So give us a shout and we'll catch you next time on the Alabama Crops Report Podcast,

Announcer:

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