



Season 2 Episode 2 – Crop Protection Products

March 17, 2022

Announcer:

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

Katelyn Kesheimer:

Hi, and welcome to another episode of the Alabama Crops Report Podcast. I am Katelyn Kesheimer

Adam Rabinowitz:

And I'm Adam Rabinowitz, an extension economist.

Katelyn Kesheimer:

And today we have have some really timely information and I'm excited for our guest. He is a repeat. Dr. David Russell is our extension specialist in weed science, and he covers a lot of systems from corn, soybeans, small grains to forages and non crop or rights of way. So welcome David.

Dr. David Russell:

Thanks for having me.

Katelyn Kesheimer:

So, David, what are we talking about today?

Dr. David Russell:

The kind of obvious issue for production agriculture right now are the supply chain shortages and high prices of crop protection products, as well as for fertilizers, but from my standpoint, I'm going to just touch on crop protection products and making secondary plans going into this planning season.

Katelyn Kesheimer:

Yeah, I think that's great and timely. All we've been talking about for weeks now and even into last year was product shortages, high prices, and how are producers going to manage in a year where crop prices are high right now, right, Adam, but so are input prices.

Adam Rabinowitz:

Well, that's exactly it. We have our enterprise budgets that the farm and agribusiness management team puts out every year and that's exactly it, Katelyn and David. We are seeing input prices with increases, especially when we talk about fertilizer or other chemical inputs and even though we're saying, "Yes, crop prices are high," the reality is that margins are still being squeezed as a result of the high input prices.

Katelyn Kesheimer:

Yeah. So I think it's going to be a tough year for management decisions, but David is here to help us. So let's get started. I know even in 2021, we were hearing about supply chain disruption. I know on the insecticide side, we had shortages across the board, and now here we are in 2022 and it doesn't seem like things have gotten better. So David, can you talk to us about the latest news on cost and supply and specifically how growers are being affected?

Dr. David Russell:

Yeah, that's exactly right, Katelyn, and we shouldn't really be surprised to find ourselves where we're sitting now at the end of February 2022, because this discussion has been ongoing since the end of last summer, end of the fall and winter of last year, anticipating this knowing the supply chain issues and the lack of labor and the lack of the availability of raw materials and so that's kind of hit us here in crop protection products, specifically in my area for herbicides. We know for sure that cost has gone up across the board for some products, maybe a little bit more than others, but what's really kind of hard to pin down is the availability of these products because it's kind of better in some places than others. I wouldn't say it's consistent statewide, or at least across the Southeast for that matter, but it's more so it comes down to who was able to get their product on time, who ordered enough, what retailers and distributors have enough on hand to pass those out.

Dr. David Russell:

When we talk about specific products, I think the biggest ones may be active ingredients like glyphosate, maybe glufosinate. I'm hearing some shortages of [inaudible 00:03:40] as well, and paraquat. Bayer sent out a letter a week or two ago. They called it a force majeure-

Katelyn Kesheimer:

Which, by the way, I had to Google that because I didn't know what that was. Was I the only one?

Dr. David Russell:

No, you were not the only one.

Adam Rabinowitz:

No.

Dr. David Russell:

I will admit I had to look that up, but basically it was saying that they weren't going to be able to fulfill their contracts that they previously had based on some mechanical issues at certain plants that made that raw material.

Katelyn Kesheimer:

So it sounds like glyphosate is the one that I keep hearing about in terms of shortages and also very, very high prices and so with everything that you just mentioned in mind, what does early season weed management look like for growers here?

Dr. David Russell:

Yeah, glyphosate's probably the main one. Glufosinate's another, or [inaudible 00:04:34] may be another, but if we are running on limited supply of something like glyphosate, here we are the end of February, first part of March, we're definitely in the middle of that burn down window, especially ahead of corn. If you don't have glyphosate for those burn down programs, that has to be substituted with something like another non-selective product like paraquat and unfortunately, that is also in short supply, maybe not as much as glyphosate, but it's really about our only other good broad spectrum non-selective option as far as burn down programs. And so if you take out glyphosate, more than likely that's probably going to be substituted with something like paraquat. And so farmers are already having to kind of rethink at least their early season weed control programs with substitutions and then I think this year more than any other, we've got to be timely and accurate with the products that we have and the applications that we make.

Adam Rabinowitz:

Are there any concerns about skipping treatments or deviating from a normal herbicide program?

Dr. David Russell:

Yeah, absolutely, and it depends from field to field and region to region, depending on what kind of weed pressure that we're dealing with. You know, if it's some pretty aggressive weeds that will inhibit crop emergence

and performance and ultimately yield, then I would say, absolutely we have to do what we can to get our crop off to a good start.

Dr. David Russell:

One that I think of is annual rye grass. That's always a nemesis ahead of corn. We talk about this every year. I know I think we did a podcast on it last year. We can just assume that the majority of annual rye grass populations that we have across the state are probably glyphosate resistance so that option may be off the table anyway and so when we think about burn down programs and rye grass is a main competitor, obviously paraquat's area. Well, if we're using paraquat, Gramoxone products for example, that's probably a two pass program at minimum, seven to 14 day apart application treatment's just to get an effective kill on that.

Dr. David Russell:

But we do have other options to mix with paraquat. We've got photosystem two inhibitors that we can add with paraquat to get a more effective kill. For example, if we're going ahead of corn or soybean, we could always mix, say, atrazine ahead of corn with paraquat, or if you're going into soybean, you could mix metribuzin, like three ounces of the dry metribuzin and that combination of a PS 1 and a PS 2 inhibitor tends to slow down that flash burn that we typically see from paraquat alone and really kind of translocates that herbicide more thoroughly through that plant for a more effective cure.

Dr. David Russell:

So there are some options there and on the point of adding atrazine to gramoxone, that can also be substituted with metribuzin, especially if we want to use atrazine at planting or early post emergence into our corn, because we're only limited to a certain amount of atrazine per year on that specific crop and so that atrazine can be substituted with metribuzin, for example, for a good burn down option.

Katelyn Kesheimer:

I want to throw another wrench in this, David. So as we're recording this, we're nearing the end of February moving into March and last year, this time we started to get a lot of rain. It was one of the wettest Springs between March and July, August on record in Alabama. So how does weather play into this? I know that's going to be a huge roadblock into getting some stuff on time. Are there changes producers can make to account for excessive rain or even excessive drought coming up?

Dr. David Russell:

Yeah. You know, none of us can predict the weather, but we do what we can when we can do it, as far as getting in the field and making timely applications. When I think of weather and how it affects herbicide applications, I think of ... one burn down option that we mentioned [inaudible 00:09:09]. A lot of these systemic herbicides really work as they're designed to do whenever plants are small and actively growing. Well, if we find ourselves during the month of February or even into early March when temperatures are cool and we have excessive moisture, we can apply those herbicides if the field conditions allow us but if that plant's not actively growing,

we may not see the effect of that herbicide for sometimes weeks and then we find ourselves within a window ahead of corn planting where we have to decide what to do next if that weed is not effectively being controlled.

Dr. David Russell:

And so then we find ourselves in another predicament where if we're running up against planting time and that weed's not controlled, well, what else are we going to do and typically if we put more herbicide on that plant to get an effective kill, it often doesn't work either because again, plants need to be healthy and actively growing to perform as it's designed to and so putting herbicide on a sick plant really doesn't do as much good.

Dr. David Russell:

And so, yes, to answer your question, weather does play a factor and so again, going back to that timing issue, we've got to decide if we get a window of opportunity, knowing the history of those weeds on our field, we've got to be timely and precise in what we put out there.

Adam Rabinowitz:

So it sounds like this is really a critical time in weed control and farmers need to plan accordingly, but then you have rain potential or other weather, product availability, attempts now to control costs as well that all may result in a potential altered burn down strategy so are there any specific weed species that could become problematic ahead of planning?

Dr. David Russell:

So we've already talked about annual rye grass or Italian rye grass. Again, that's probably with the addition of the other grasses, like the cheap grasses or the other cool season annual grasses. Those are probably the biggest ones specifically ahead of corn. I would say this year, maybe more than other years, is a really good year to rely on residuals during the burn down application or pre-plant prior to that crop emergence, just to help move us into the crop emergence period and get ahead of our weed populations.

Dr. David Russell:

The other one this time of year is horse weed or mare's tail, and I don't think it's widespread because I think we've got a pretty good handle on that ever since we kind of introduced dicamba into some of these burn down mixes, but we've also got Sharpen and so mixtures of, for example, glyphosate with Sharpen or glyphosate with Dicamba, or even glyphosate with Elevore, if you've got something like horseweed and those mixes, those are usually pretty effective.

Adam Rabinowitz:

So I'll say from my perspective, there's another component that we haven't talked about, which is the fact that the Ukraine situation is very unsettling right now and there's, depending on what actually happens in that region, Russia is a big producer of nitrogen, phosphorus, potash, and how that could ultimately affect fertilizer

and fertilizer prices. We're already seeing some response in crop prices fluctuating and energy prices moving up as well. This is going to be another one of those sort of uncertain aspects to the current climate right now.

Katelyn Kesheimer:

Yeah, and like David said, we can't predict the weather. Our crystal balls aren't going to tell us what's going to happen with prices and so sounds like flexibility needs to be key in making decisions this year and maybe try to just stay a little bit ahead as best we can, but also be reactive to what's going on. So as we kind of get ready into planting, I know, David, you've talked about being timely and precise. Any last minute tips for producers as we gear up for the 2022 season?

Dr. David Russell:

You know, this is a fluid situation. It's kind of day to day, week to week, as you've already mentioned with the availability of products and then watching the news and world market. It is fluid and we do have to have a game plan and anticipate the worst. I hope that the majority of farmers, at least the ones I have talked to, do have a lot of these products on hand, at least to get them into the middle of the growing season. We do anticipate that at some point in time, a lot of these other products will begin to fill the shelves back up and then we can get access to that.

Dr. David Russell:

There was one other new product that I failed to mention in that burn down program, and that's the use of Reviton. I mentioned Sharpen earlier and this is kind of a new active that's available for us in burn down. It's very similar to Sharpen. It's also a PPO inhibitor and I've not looked at it extensively myself in my research programs, but looking at the data from other states, it seems to be a good component if you do have glyphosate and are using glyphosate in burn down mixtures. It can easily take the place of Sharpen as a PPO inhibitor with glyphosate, especially if you have some grasses or broad leaf like annual rye grass or horse weed. I think that product at one to three ounces can be used effectively in a place of something like Sharpen and I think it's zero day plant back restriction for corn and wheat and, say, 14 days for cotton or soybean. So at least we do have that other option right now, as we're talking about burn down weed control.

Adam Rabinowitz:

That's great. David, we really appreciate the opportunity to talk with you on the Alabama Crops Report Podcast, and I just want to point out for our listeners, too, that can't see this but just like any great extension specialist, David is in his vehicle right now as we record this podcast and so we really appreciate you taking the time out of your busy schedule to bring us this information.

Dr. David Russell:

Well, thank you again, and it's good to be here. Call if we can ever help.

Katelyn Kesheimer:

Yeah. Thanks so much. Dr. David Russell, our extension weed scientist, and as always, if we can ever be of any assistance, don't hesitate to contact us. We'll catch you next time on the next Alabama Crops Report Podcast.

Speaker 1:

The Alabama Crops Report Podcast is a production of the Alabama Cooperative Extension system and is sponsored by Alabama Ag Credit.