Weeds AR Wild, S3 Ep3

Intro/Outro

Arkansas Row Crops Radio: Providing up to date information and timely recommendations on row crop production in Arkansas.

Tommy: Welcome to the Weeds AR Wild podcast series as a part of Arkansas Row Crops Radio. My name is Tommy Butts, Extension Weed Scientist for the University of Arkansas System Division of Agriculture. And today I have the privilege to be joined by Dr. Jason Norsworthy. Jason, you want to say hi to everybody out there.

Jason: How's everyone doing? Hope everyone's off to a prosperous 2023 planting season.

Tommy: I like how you ask how everyone's doing and they can't answer us because we're on a recording. (laughing), so we like to have fun on this podcast series. Tom and I were picking fun at each other the other day so it's always a good time, but uh . . .

Jason: I listened to the two of you and just laughed.

Tommy: That's right (laughing), so today what Jason and I really wanted to talk about was basically just kind of an overview of 2023 recommendations for our rice weed control. We are going to try to hit on a multitude of topics. But that's kind of the overall theme of what we wanted to hit on today. And honestly there's never a better place to start when we're talking about weed control in general than residuals. Right? We always hammer residuals and I just figured that'd be a good place to start and so Jason, I don't know if you just want to start off right from there and where we want to take it from there.

Jason: I'll take it from there Tommy. You know, my phone's been ringing I'd say for the last seven to ten days in terms of folks burning down or getting ready, like I said, putting planters in the field and they have questions about residual herbicides. What do we put up front, what kind of rates are we using and the first thing that I would tell anyone when it comes to putting a recommendation together, if you really want a tailored recommendation, give me a call, give you a call, and let's talk specifics. Let's talk about soil texture, let's talk about weed spectrum that you have because I think that's going to dictate the product that we actually put out there in the field.

Tommy: A hundred percent. I always tell guys I start off with, I can tell you I start with Command and Quinclorac and then from there, I don't know, I need more details. I need to know what the field history looks like, what weeds you're normally dealing with, what the year looks like environment wise. After I get that Command and Quinclorac out up front, it's all games from there on what you can plug and play kind of thing.

Jason: I think we're on the same page there. I mean my go to coming out of the gate is Command and Quinclorac and you know there's several Quinclorac products out there. You've got Quinstar from Albaugh which is actually a 4 pound material and just as a reminder for everyone, that material goes out on a silt loam soil at 12 ounces per acre to the equivalent of 32 ounces of Facet. So if you go with the Quinstar, you don't have need nearly as much product as you have with Facet. A lot of folks want to put some Command in with their Glyphosate in terms of a burndown. One thing I want to caution everyone on if you mix Command and Roundup together make sure that your running a full rate of Roundup because we tend to get some antagonism, I'm not sure why we see antagonism with Command, when we put it with Glyphosate, but we've seen that year after year. And as I've reported in several meetings over the past several years, we're starting to see more and more slippage is what I would say, with Glyphosate or Roundup on barnyardgrass and for that reason we've got to run a full rate, when I say a full rate, I'm talking 32 ounces of Glyphosate in that burndown.

Tommy: Real quick question while you're talking about like antagonism issues there too. Paraquat and Command together. I've had guys tell me absolutely don't do it, it'll gel up the sprayer and then I have other guys to tell me we run that all the time and never have any issues. Well what's your take on Paraquat/Command tank mix?

Jason: I'm going to tell you Tommy, I don't, I generally don't even think about Paraquat if I'm after, if I've got grasses out there, I'm Roundup by far is going to be the better option for me. So that's not something I do on a regular basis is look at a Command plus Paraquat. I'm a big fan of Paraquat but not necessarily in rice where I'm running Command.

Tommy: And that's fair too. I just know without ryegrass anymore, we're running so low on options on some of those areas and some more guys are starting to try and throw it out there. And I don't think I've ever mixed those two together myself. I just, I've heard both sides of the coin and so I've never really had a good grasp on if it's a good idea or bad idea so.

Jason: That's probably something that we do need to bring more into our program to look at because I agree with you. Ryegrass is becoming more and more of a problem. I mean if you look back, in the last five years it's just amazing how it's marched north across the state. Historically over the last ten/fifteen years this has been a weed that's been a problem in the southeast corner of Arkansas. Obviously, Mississippi, Louisiana, etc, but over the last several years I've seen it go north. It's in northeast Arkansas and I see it in a lot of fields up in the corner of the state.

Tommy: Yeah. A hundred percent. So just jumping back to the residuals. So like we said, we're both big fans of Command and Quinclorac up front and really regardless of planting date that's a great mix. They're planting early, planting later, that's a good mix to pick up a lot of different weeds, pick up grasses that are emerging whenever, pick up odds and ends things. I'm a big fan of that. One of the other residuals that I'm a fan of after that, and you can kind of play games depending on your soil type and stuff, you know working in the Prowls and the Boleros of the

world, really need to be in our minds that after that initial PRE, we need to start working those in either as a tank mix together or maybe do a Command mix with one of those or things like that. But getting the Prowls Boleros out there in the world are really important moving forward too, especially for our grass control. Did you want to add in that especially from our resistant type of things?

Jason: Absolutely. I'm a big fan of Prowl and Bolero. Those are two herbicides to which we do not have any resistance within our barnyardgrass. I think those are two herbicides that are under utilized in Arkansas rice today. And you know you mentioned mixing those with Command. I want to just step back here a second. I've had some folks call me and also tell me that they are a little bit reluctant at times to put the Command out because they get injury with Command. What I would tell an individual, if you historically had some issues with Command, back off of that rate. The last thing I want to see you do is pull Command out of your planting application. And if you have been seeing a lot of injury and you don't necessarily want to back off of the rate, another option that you can do to actually safen that rice is to wait until you have your first rainfall event. Once you get your first rainfall event, come back in, then make that Command application and there again, put in a Prowl, put in a Bolero, and I think you're going to be extremely impressed with the residual that you see. And really also, not only is it the grass control you're getting with the Prowl or Bolero, but you're picking up a lot of other weeds. For instance if you've got dayflower as an issue, you're going to pick that up with the Bolero. Prowl is a very good pigweed material. Especially if you're in row rice and to start off clean there. I like to see Prowl in that program.

Tommy: I totally agree. And one of the other things that Bolero is really good for that we like to talk about is those annual flatsedges of the world. Those things have become an animal across the state for our rice acres. And having that Bolero out there, it's probably if not the best right there, near the best residual for those flatsedges. And what I really like about that Bolero has to go out at least delayed PRE, so normally if we have a strong PRE up front it can go out a couple of weeks later. The nice thing about that is that even for our early planted rice acres, that Bolero gets put into a timing where it is much more appropriate for when flatsedge is emerging. And so what I'm trying to emphasize here is that those annual flatsedges are very late emergers. We're talking beginning of May, early as mid-May when they kind of take off, right? So if we're planting right now, I know I've had several calls from guys that were getting out there and planting this week. If we throw in, say Sharpen right now, by the time mid-May rolls around and those flatsedges are coming out, that Sharpen has played out. It's really not giving us a benefit at this point. Whereas if we plant now, we throw out Command and Quinclorac, we come back two/three weeks from now with that Bolero component, now all of a sudden we're just a couple of weeks away from that window and that Bolero can play a big piece of knocking back that flatsedge a whole lot more. So that's, I really want to emphasize that because Sharpen can be a really great option for flatsedge too, but it's really more if you're planting late where that becomes a benefit when you're getting into that window where that, those flatsedges start, you know, emerging. Kind of the same thing with pigweeds. Pigweeds are the

same aspect on that front too. So I just wanted to emphasize that because that is really where Bolero can be a great fit too from those flatsedge standpoints.

Jason: I agree with you totally on that Tommy. And if you take a look at Sharpen. Sharpen is a real, real short residual herbicide. It doesn't have the length of residual that we see with other PPO herbicides that we use in soybeans. And for that reason I'm not a big fan of running out there and using Sharpen today. As you said, I mean the pigweed, we're several weeks I think before the pigweeds get going and the flatsedge, and you know there is a lot of discussion of Sharpen being in short supply and if that's truly the case why would I want to go out and use it at planting? I think there's better products, such as, again, Bolero that we can use delayed PRE and get a much better targeted control of flatsedge if we go with the Bolero rather than Sharpen.

Tommy: Especially right now. Yeah, you know, again, if we start planting mid-May or something then maybe it's a different story, but right now, yeah, I'm a hundred percent with you. If we're talking things like some of our early emerging weeds that we are concerned about. The smartweeds, the yellow nutsedges of the world, things like that. You know Sharpen, it is, is ok on some of those but it's not great, and I think there's better options. There too again, honestly there was a fit for League on some of that aspect to knockout yellow nutsedge or even some, some of those other broadleaves. The Quinclorac is going to add some of those broadleaf weed control, things like that. So even there I think there's better options when we're planting early and dealing with some of those early weeds right now.

Jason: I agree with you totally. And I think that, you know, for instance, if you're planting now and you've got smartweed out there, I mean look at throwing something like a Gambit. You know if you get some size on that rice and you get a stand, you've got to, you've got the three-leaf stage of rice, I'd be looking at coming in with Regiment. You've got Propanil, you've got Basagran that you can mix together that's going to help pick up some smartweed. But smartweed is a weed that I think if you're not careful it'll get ahead of you and where we have reduced tillage systems, I hear, I get a lot of phone calls on what to do with smartweed early in a reduced tillage system in rice.

Tommy: Yeah. And the only warning that I'll throw out there too, that I've talked to a lot of guys about, Gambit looks really good on those weeds. And it does have residual activity because of the Peak and it's, it's good residual activity too. The one warning that I like to throw out there is, if you use, say you use the full two ounces PRE, you no longer have you know any halosulfuron for a POST perspective later which scares me. I hate taking that bullet out of the chamber. So I tend to kind of lean, guys, if you're in a bad smartweed population or you've got some of the bad yellow nutsedge things or something, maybe try only an ounce for the PRE and then that still saves you an ounce from a POST perspective later that you've got, you've still got a bullet in the chamber for later on from a POST side of things, so. I kind of like to throw that out there just in case, but.

Jason: Absolutely. I definitely would recommend that you, that you split those because you know, if you've got coffeebean, if you've got jointvetch late, or you're going to flood and you know you're going to have those weeds, I like to see Gambit in front of that flood, so an ounce early followed by an ounce preflood, I think is going to pick up a lot of weeds that we're talking about here.

Tommy: Well like you mention there, the coffeebean and jointvetch right before flood there, Gambit's great because it's non-discriminatory. It takes out both of those. And then we talked about the residual. Well I had a lot of guys that talk about, you know, those breaking through late in the year and Gambit again will at least give you some residual going into the flood and can help with some of that too. So, yeah again, it re-emphasizes the fact of why I at least like to have an ounce there, at preflood so it helps on both of those fronts.

Jason: Something else along, while we're talking about coffeebean and jointvetch, is that you know Loyant as well as Novixid on fertilizer continues to look very good in my research as long as the coffeebean and jointvetch is small. If you can go to flood and you got six inch out there, I'll tell you all bets are off. But if you've got two inch, three inch coffeebean, jointvetch and you're going to flood up on that, you put Loyant or you put Novixid and I really like Novixid even better than I do Loyant because for those of you who aren't familiar with Novixid, it's basically Loyant plus Grasp. And you'll get some grass activity out of Novixid as well broadleaf weed control if you put it on fertilizer. Of course it's even a better product if you want to spray it. But now some folks are reluctant to spray it, just due to soybean sensitivity.

Tommy: Yeah, I've been really, really impressed with Novixid. It's uh, you know, Grasp by itself when I've sprayed that, it's ok, not great in a lot of my areas for grass and things like that. Loyant is kind of the same way, especially for grasses, like it can work but it's not great. We've got a lot of resistance out there you know. But man those two together, I've seen some really good control, and like you said even when we coated fertilizer it looked really good even on different things. So like I've been really impressed with Novixid from multiple fronts, so. Anything else on the residual front there that you wanted to hit on?

Jason: Well, nothing else I can think of on the residual. But you know also you were mentioning flatsedge here a second ago and I want to fire a question at you. And I'm not the expert when it comes to white margined sedge. I know that you've done a lot more work in that area and I'm starting to do some things on white margin. I'm beginning to learn what white margined sedge is. I'm like a lot of folks out there that at times I mistake yellow nutsedge for white margined or even flatsedge for white margined. So tell us a little about that and what your experience has been. I'm curious as to when, when's that weed emerging and what's your go to because we're seeing a lot more of that weed here in the state.

Tommy: Yeah, it, so in my experience with talking to growers who have found it now and when I've done some on farm research with it and things like that. It's really to me, resembles and acts the most like rice flatsedge. To me it's very much similar to the annual flatsedges of the

world. Uh, it tends to emerge, you know, later. It needs those hotter temps, so more like that mid-May kind of time frame is when it picks up. It's kind of one of those where guys don't think they have it and then all of a sudden they're going to flood and it pops through the canopy, is most of the time when I'm getting those phone calls on it. So it's one, it's one of those kind of emergers dealing with weeds. Uh, you know, IDing it can be really tough like you said because it looks a lot like flatsedge early. It can also, you can confuse it with yellow nutsedge every now and then. It's just, it kind of, it looks very similar to both of those. And then the only difference is, like with rice flatsedge, you've got that cedar smell whereas this doesn't have that smell. It basically has, it just smells like a green plant. And then once it gets size to it, you know six, eight, ten inches tall, which starts getting out of our window for control because it's too big. But once it's that big then it develops that white underside on the underside of the leaf. Then it's very, very evident at that point what it is. It's very silvery shiny, you put that leaf over it just looks like it's been bleached with Command or something. So then it's very evident what it is. But as far as control stuff from what I've seen, you know it's, it's kind of a similar, again to rice flatsedge. The Sharpens and Boleros of the world are pretty good as far as residuals. Bolero's the best. So if I can get Bolero out there and time it right when that later emerging, that is best there. From a POST standpoint, Basagran is really lights out on it as long as you get coverage. Once again with it being a late emerger the rice canopy's thick and it's tough to get that Basagran to cover it real well. Loyant is the next best option, which may be the best option since you don't need as great a coverage if you start getting towards the flood and things like that. Loyant has been really successful at knocking it out, you know ninety, ninety-five percent control. And I've heard some rumblings, I haven't got to test it myself yet, but I've heard some rumblings that Rogue might work on it. It might be a little bit more size dependent and kind of that flood depth dependent, but I heard that might work on it some as well. But really for most of our acres it's living with Basagran and Propanils of the world, the Loyants of the world and the Boleros of the world.

Jason: We're planning on doing some work I know this summer with white margined sedge where we're going to look at, we're going to look at Rogue. We have a trial set up to do that and there's one other comment that I will add. There again I'm not an expert on white margined sedge, but I did some work in the greenhouse this winter looking at Permit and I can tell all of our listeners that Permit is not the solution to white margined sedge. It's not that it's resistant to it. I mean we can crank that rate on up and we can start seeing a response, but at the rates we're using in Permit or Permit containing products today, I don't think you're going to get a lot of success on white margined sedge.

Tommy: No, that's what I've seen too. I mean especially from a POST standpoint it was really not effective where I sprayed it. I will say that when I sprayed Gambit from a residual standpoint, I maybe got what I call suppression. You know I maybe got like a fifty percent or so with Gambit from a residual standpoint, but it's not anywhere, like you know, Bolero and Sharpens were eight-five percent plus, and so when you can have that versus a fifty percent out of a Gambit, yeah, it's just, it's not, it's not there. And honestly that's most of the time where I

get calls, is they're like it's a sedge so we sprayed Permit and then it's like well that's not going to work on this, this species. We got to ID it. So that's, that's where I've seen most of my complaints, complaints come in to. And I will say distribution wise it seems like it's spreading a lot more. You know, it originated, actually Ford Baldwin had, had gotten it ID'd way back when he was in my position, so it's been around for a while. It just hasn't seemed to spread necessarily. Um but it was, it started up in kind of the Light, Delaplaine area, up in that area, but man I've had calls all the way down to, to DeWitt now where it's been found. So I think it's spread through all our riverways and all our watersheds quite a bit. It's probably scattered pretty much throughout the state now. It's just whether we've ID'd it yet, or have kind of missed it and we've been able to control it without even knowing it kind of thing.

Jason: Right. Umm, you were mentioning their residuals and so I, when I think of residuals, one thing I just wanted to just go ahead and add is, when we think of residuals we kind of start clean, we start with residuals and we try to work our way through the season in terms of overlaying residuals. And with that, one thing I wanted to make sure that we mention today is, I'm a big fan based on the research that I've conducted thus far of moving our Ricestar applications from, that's been a herbicide that historically we have used in a salvage type application and I'd like to see us have more of that, in what I call that early POST. That three-leaf rice application, if for some reason those residuals have broken and you've got some small grass out there, I really like to see Ricestar there. I think that we will spend a lot less money on our weed control programs in rice, especially our barnyardgrass control programs, if we had something like a Ricestar early POST just to ensure that we were clean because the one thing that I've learned about rice is if you go to flood and you've got barnyardgrass out there, you're really about to spend a lot of money and you may not still have a clean crop at the end of the day.

Tommy: A hundred percent and one of, one of the add on benefits of trying to move that up earlier, and it really applies to Clincher too, but the fact is that normally those early POST timings we can avoid some of our mid-summer heat. And heat and those grassers do not agree with each other. They don't like, you know, their control drops way off when we get that heat and so if we can push those applications up a little bit in the season it's going to, again, get us better, more consistent weed control there too. So it's kind of a double whammy where you got smaller grass but you also have better weather conditions for it to be successful. And I will say too, you know we talked about salvage, Ricestar and Regiment is really still our best salvage treatment, but if we're talking about a salvage, that is not something that we should be planning on. That should be something on where, man we failed and we need something to save the crop, right? That is a last resort thing that we should be concerned with. You know, so yes, it can work but that is a last resort option. Like we said, the, really the recommendation should be Ricestar up and we should be as clean as possible going into the flood that we don't ever even need to think about using the salvage then.

Jason: We got some research in the growth chamber right now where we're actually looking at Ricestar and we're looking at like a seventy-five degree day, eighty-five degree day, ninety-five degree day. And of course that research is ongoing and I hate to, I mean I can't tell you exactly how the results will shake out at this point but when I look at just the calendar year, when we hit about ninety degrees Tommy, about ninety degrees, that's when the phone's going to start ringing that my Ricestar, about ten days, fourteen days after that, folks are going to start calling and say Ricestar didn't work. And I'm convinced that it has to do with those high temps. Now I don't know whether it's ninety, I don't know whether it's ninety-five, but when we get into the nineties, there's definitely less activity there with that herbicide. And I say less activity, less activity, what I've noticed, there's less activity on barnyardgrass. But I think we have a tendency maybe to see more activity on rice from an injury standpoint. So I can't sit here and explain why that's the case today other than the fact that we really want to be moving those applications up.

Tommy: Yeah, and I don't know if it's more, like you said more activity on the rice side, but I know if that's more from the herbicide or just the fact that it's hotter. The oil adjuvants or the oils in there happen to just burn that a little bit more for some reason. But yeah, I, I agree. The control on the grasses just dips dramatically from what it is when it's a little bit cooler. But just kind of rolling in to some of those postemergence things, you know, I at least wanted to touch quickly on some of the, you know, the trait technologies and resistances that we're seeing out there because we do have some new things on that front of confirmations and some recommendations where we're going. So yeah, I guess just the first thing on those trait technologies, do you want to give us a quick update as far as both the resistant barnyardgrass and weedy rice? What that looks like across the state, but then also the Provisia/Highcard resistance in weedy rice and barnyardgrass and what that looks like across the state.

Jason: You know we continue to see an increase, again I don't have the numbers in front of me on the barnyardgrass, but it's well north of fifty percent of our barnyardgrass samples that come in now are going to be resistant to Newpath. And when we look at weedy rice, I think the last two years I've had one out of forty-five samples that's been sent in the last two years that's actually tested susceptible to Newpath. Again I'm not saying that Newpath has no value today but from a weedy rice standpoint I think you're going to be hard pressed to find value in terms of controlling weedy rice. And I think part of that though is, we got to just be mindful, there's guys out there I hear that want to switch to Beyond, Beyond, Beyond, because Beyond really has, I'm not going to say no residual, but Beyond has very little residual and it gives them rotation flexibility. The problem with that is that residual actually helps us from a weed management standpoint and it really takes the selection pressure off our postemergence herbicides. Something else that we run into is when we don't have any residual out there and we go and we start trying to flood up. If it takes us ten days, fourteen days to get a flood across a field and we don't have a residual out there, you're going to have another flush of weedy rice. You're going to have another flush of barnyardgrass. Those weedy rice plants that emerge late, those are the ones that are going to outcross. Those barnyardgrass plants that emerge late,

again we're not, we're going to be in a salvage situation as far as trying to control those floods, so I'm all about trying to use residuals and we really need to think about where are we today at least from a Clearfield standpoint as well as from a FullPage standpoint. When I say Clearfield and FullPage, I mean they are essentially synonymous. That's just something else that I feel like I talk about this all the time, but I have individuals that will still continue to call me and say Dr. Norsworthy, I planted Clearfield last year and I'm going to rotate to FullPage this year and I'm hoping for different results. I just want everyone to know, you're not going to see different results, even if you use a higher rate of Preface you're not going to see different results on an ALS-resistant barnyardgrass or on an ALS-resistant weedy rice. Moving on from there, just mention a little bit about Provisia. This past year we found a Provisia-resistant weedy rice sample. There was actually two different, an awned and a non-awned weedy rice in a field that has been historically, at least for the last four years has been planted with Provisia rice. What I would tell folks today is, if you're planting Provisia rice, I would look at going with eleven ounces on that first application, I would come back preflood with ten ounces and then I would come with another ten ounces postflood. I think that's going to be the best way that we can protect from outcrossing. The other thing that we got to make sure that gets out there is, we cannot continue to plant Provisia rice followed by Provisia rice. That makes absolutely no sense from a resistant management standpoint. If you're wanting to break Provisia rice that's a good way to do it. I also don't think it makes a lot of sense to plant Provisia rice and then rotate to Clearfield rice if I know that I've got weedy rice out there that I can't kill with Newpath. And the same if you're going to rotate in to the FullPage technology. Don't rotate out of Provisia to that technology unless you have an effective herbicide program in place. One other thing that I need to also mention as it relates to the Provisia is that we have tested that for resistance to clethodim. That Provisia-resistant weedy rice does have some degree of resistance to clethodim. And I guess that just means for those of you that aren't familiar with clethodim, Select, Arrow, those type of products are not going to be effective in terms of removing that weedy rice if you rotate to soybean. I do want to see those growers rotate to soybean and with that I think Glyphosate or Roundup as well as a chloroacetamide, things like Dual have to be a major component of what we're going to do in that soybean crop that we're going to clean up weedy rice.

Tommy: Yeah. So just a couple of things that I just want to re-emphasize. So really again, moving forward with Provisia, our recommendation is probably doing three shots rather than doing two that we've talked about before. Doing the eleven, ten, ten to try and make sure that we're getting a postflood shots that we wipe everything out so it can't outcross. I wanted to emphasize that. Along those lines as well, you know we haven't tested that a lot, but we have tested a little bit and I know it's really common down in Louisiana and they've been successful with that three way shot in some of their research and things, so that we feel at least fairly confident in. When we go to the Max-Ace side and Highcard, you know we talked about this before the podcast. Neither one of us have tested Highcard in a ten, ten, ten kind of system and with that having a safener in it, it just makes us a little more leary on that front, so we really

probably need to get some research out this year, next year, kind of to validate if that's going to work in that system with a safener, so I would just kind of put that, that hesitancy out there in the Max-Ace system from that standpoint. But on the Provisia side at least we have seen, you know, between us and Louisiana where that can be successful, so I wanted to emphasize that. And one other thing that I wanted to emphasize there that you said Jason was talking about rotation to soybean, because that's literally basically our, our, our only other option when we have both Provisia and IMI-resistant weedy rice. We don't have another option unless you want to try and water seed and use Bolero and all those other things where even then it's even still, there's a lot of things that can go wrong. So rotating to soybeans is critical and I know we get told a lot well this is a zero grade, we can't grow beans on it. You can. Is it an ideal situation, no. But there's plenty of guys that have done that very successfully and still had great yields, still been very successful growing soybeans on those zero grades. So I wanted to emphasize that. That it can be done. It's not ideal but it can be done and it's really where we have to go anyway. I know you've had some, some discussions with, with people about landowners. I didn't know if you wanted to hit on that aspect as well.

Jason: Yeah. I just, you know, I've had folks tell me, well you know I really want to rotate out of Provisia. I want to rotate out of Clearfield, and I really want to rotate out of rice. I want to rotate to soybeans because I understand the value of that, but I've got a landlord that tells me if I don't plant rice, they're going to have someone else farm this ground. What I would just say to that is, I mean I'm here, I, give me a call. I'd be more than happy to try to talk to your landowner. I think Tommy, I think you would do the same because at the end of the day, if you're going to remain profitable, if that land's going to remain profitable, as it relates to rice production, you're going to have to get out of rice and switch over to soybeans. And as you mentioned Tommy, I mean I talk to folks, I mean on zero grade ground I can tell you farmer after farmer that I've spoken to that's averaged sixty, sixty-five bushels of soybeans on zero grade ground. Now, I mean, do you have greater risks on zero grade ground in terms of losing a crop you can get a five inch, six inch rainfall event. Absolutely you do. And I mean I know and unfortunately I mean if you go back, what was it a year, two years ago I guess down in the DeWitt area, there was, what was it Tommy, twelve, thirteen, fourteen, maybe twenty inches of rain hit and in that scenario whether your zero grade of what you have, I mean folks lost a crop, but I guess there's always risks but I think the reward is much greater than the risk when it comes to rotating it. And along those same lines, just fyi to everyone, I mean there's nothing I see in the pipeline that's going to be here within the next three years to address this problem. And this is a tool, based on what I see, I'm talking about the Provisia, the Max-Ace's that can go away rather quickly. I think the risk of outcrossing is much, much greater than what we had in the Clearfield system and if we're going to continue to have tools over the next three or four years, we're going to have to bring rotation into that system. One other thing that I did not mention a few moments ago is, especially I would tell you in the Max-Ace system, I really would like to see growers that's got Prowl/Bolero at least in that last, in that preflood application, Prowl/Bolero to try to carry me over into the flood. If you're on a zero grade ground or if you've got a side inlet, I would consider putting Rogue with that last application of Highcard. If you're going to, if you're going to run ten ounces, put Rogue with it. I think you're going to be much more impressed with the results on weedy rice than if you go out there and you try to run three pass system, ten, ten, ten. Especially on something like Highcard.

Tommy: Yeah. And that herbicide pipeline is really kind of a scary concept to me too. Because, like you said, I'm with you, maybe within, you know, not within but at three years we'll have a new option. But that's likely to be that, you know, hopefully that FMC option but that's not going to be a weedy rice material and so again we're still, it's going to help us with other things but on the weedy rice front we're still lacking options, so we're still going to be battling that issue there. So, you know, down the road, we don't have a silver bullet anywhere near in the pipeline that we have to use what we've got now and we have to manage it appropriately and so it's, it's always the kind of things we talked about trying to throw multiple things at it, you know, using some of these cultural strategies, using you know the rotation factor. It's where we got to be because otherwise we're going to just be completely outran in a hurry.

Jason: Yeah, Tommy and along those lines, I think me and you at some point need to do a podcast where we talk about cultural strategies. I know that we've looked at some alternative methods of, of managing weeds, of barnyardgrass, of Palmer, etc, seed destructors and I don't think we, that this is not where we want to do it today, but I think that would be a good topic to do on another podcast.

Tommy: I agree. Um, with that, that was really the last thing I wanted to hit on. We could kind of wrap up. Do you have any last minute things that you wanted to mention Jason?

Jason: No, I think I'm good. I think we've covered most of the basics today and again just remind everyone, give us a call over here and anything we can do to make sure that you've had a productive year in terms of controlling your weeds and rice. Give us a call and we'll do the best that we can for you.

Tommy: Definitely, a hundred percent agree with that. Last couple of minute things I always like to mention. You know make sure to check out our website for some updated information there (www.uaex.uada.edu/weeds). If you haven't yet, get, get to your county office and get an MP44 in your hands or download one so you can have one on your phone for on the go. There's lots of our recommendations right in that book for you. Please sign up for our texting service if you haven't, you know just text "weeds" to 501-300-8883. And then like Jason mentioned, I mean if you have questions, you know, feel free to get ahold of us anytime or Tom Barber as well. I know he's open to answer phone calls, text messages, all that kind of stuff too. So with that I just want to thank all of our listeners for joining us and the continued support of this podcast series. Thanks to all of our financial supporters as well that help us conduct as we talked about today as well as these Extension activities. Thank you for joining me today Jason. I appreciate that as well. And with that I just wanted to say thanks for joining us for this episode of the Weeds AR Wild podcast series on Arkansas Row Crops Radio.

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