

**[00:01] Intro/Outro**

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

**[00:12] Bob Scott**

Welcome to the Weeds AR Wild podcast series as a part of Arkansas Row Crops Radio. My name is Bob Scott and I'm extension weed specialist. And with me today is Dr. Jason Norsworthy, the University of Arkansas weed scientist and elms farming chair. We are both part of the University of Arkansas System Division of Agriculture. I'd also today, like to introduce a special guest that we have and welcome Mr. Zach Reese, who is a sales representative for Gowan Company. Zach, you cover Northeast Arkansas, the Boot Hill, Missouri and West Tennessee, is that right?

**[00:45] Zach Rees**

Correct.

**[00:46] Bob Scott**

Well, welcome to our podcast and thanks for joining us.

**[00:51] Zach Rees**

Yeah, thanks for having me.

**[00:53] Bob Scott**

Zach, how long would you have you been with Gowan? I'm kind of new. I'm back from administration, and so I've lost track of a lot of folks and year knew when I came back. So yeah.

**[01:04] Zach Rees**

So I've actually been with Gowan for nine years now, nine. But I spent the first six years with the company down in Arizona at the headquarters doing various roles, and then three years ago they shipped me out to Arkansas.

**[01:16] Bob Scott**

I got you. So you were with Gowan when I was a weed scientist before. I just probably didn't get the chance to...

**[01:21] Zach Rees**

Different parts of the country.

**[01:22] Bob Scott**

...Interact with you out there. Not that much rice out there so well I thought for today's topic, I've been out looking at a lot of fields of rice that are either getting ready to go to flood, being flooded, or we're sitting here, you know, a few days post flood. Of course, if you go down south, rice is further along and that is a real mixed bag. I know it doesn't apply to everybody, but we're kind of in that pre flood post flood rice weed control time frame. And it got me to thinking a lot, Jason, about how much, you know, we control theology, I guess, or thinking in rice has changed from when I started, which was years ago. And you know, back in the late nineties we didn't have Clearfield, we didn't have hybrid. We we had a lot

of we had a few other tools like Ordram, which made a lot of things possible. But you know, the rule back then, Jason, was don't flood up on it until it's clean. And then you wanted that flood to be your weed control.

**[02:31] Jason Norsworthy**

No, you're exactly right, Bob. You know, we did not have as many tools. I mean, you go back, you're dating yourself. Dating me, too. But you go back to the late 90s and you're right. When you flood up, you were basically, if you had weeds when you went to flood you were going to have weeds there at harvest. And, you know, today we still say we want to go to flood clean. It's a lot easier, I think, to kill weeds prior to going to flood. But we do have some tools in our tool basket that we can use to try to kill these weeds if we get into a salvage situation. And, you know, we're starting to get there, as you just mentioned. I mean, some folks have been at flood now for two going on three weeks, some of the earlier rice that we've flooded. And I'm starting to get some calls. Yeah, I've got some big grass is breaking through. What are we going to do at this point?

**[03:29] Bob Scott**

Yeah. And when you make those recommendations, you know, the last podcast we did and I think Jarrod's last newsletter that went out, Dr. Hardke, our agronomist, you know, talked a lot about cut off timings because everybody want to know, how late can I put this stuff out? And we're kind of definitely getting into that season. And I'll back up just a second. You know, I think there was a big change when we saw the introduction of Clearfield and Zach, that was also before your time when that was first brought on the market. But I want to tell you it took some education because everybody liked the two sequential post timing of new path back then and for a lot of years it was spray early and then spray pre flood and put something in there for broad leaves. And then you had all this kind of halfway injured grass out there and our recommendation was put water on it and it took a lot of faith for guys to flood up on that grass that it would go ahead and die and everybody kind of learned to trust in that system, I think, because of weed resistance. Now, Jason, you do a lot of screening for that. It's not as simple as that anymore. We don't know for sure that that stuff's going to go down.

**[04:49] Jason Norsworthy**

You know, that's right, Bob. I mean, better than, better than 50% of what I screened today will come back positive for at least resistance to new path. That doesn't mean that 50% of the barnyard grass out there is resistant. But we definitely have issues that we're dealing with. And the beauty of the Clearfield system in addition to, like you said, spray it in and flood up, was the residual that you got from New Path. I mean, 14 days of residual is, you could basically count on that. And not only was residual barnyard grass, but the residual on weedy rice. And we've talked time and time again about why we did not have a quick onslaught of resistance in weedy rice. And it largely had to do, I think, with the residual that we got out of the new path.

**[05:43] Bob Scott**

I agree 100%, and I think we're back in a lot of ways. And whether it's a good thing or a bad thing, we're back to really wanting to be clean with overlapping residuals and and try to be clean at flood as much as possible. If we can do that now, probably mostly because of resistance. Zach, I know you've been out running the fields a lot and looking in, is that kind of what you're seeing out there? Have we brought us up to today?

**[06:15] Zach Rees**

And yeah, I mean, driving around this year, I think the biggest shocker is some fields went to flood super, super clean and some fields are just a mess going to flood. But things were moving so fast and we didn't have the weather for spraying and some things had to get flooded up early and they couldn't wait on it to spray it one more time.

**[06:36] Bob Scott**

I agree 100%. I always kind of judge the year we're having by when do my RiceStar and Clincher calls start coming in. The later the later guys call me about those products usually the better, cleaner year we're having and boy, I was getting calls that really were calling for some RiceStar and Clincher pretty early. Luckily, I think we had good conditions this year, you know, for a pre flood shot of some of those products. They like kind of cloudy, cool, wet conditions and I think we certainly had some of that. We've got resistance out there. You know, unfortunately to some of that chemistry as well, I believe. But but I had a lot of good luck out of it this year that which also...did we freeze up?

**[07:33] Jason Norsworthy**

I think we're back. Yeah we froze up.

**[07:39] Bob Scott**

Well we'll either edit that out or leave it in for fun, one.

**[07:44] Jason Norsworthy**

So but we're, you're back now.

**[07:47] Bob Scott**

All right. So what I was saying was I sure got a lot of early calls for RiceStar and which told me that we were going to have a few more grown up fields. Jason is propanil and facet pre-flood just, is it, are it's days over out there being a good...?

**[08:04] Jason Norsworthy**

I don't think so Bob, you know I still like you know propanil, propanil is the underutilized herbicide these days especially like you say when you mix it with something. It's, you know, maybe we don't need four quarts of propanil if we're chasing some broad leaves. It just it's a broad spectrum herbicide that outside of barnyard grass, it still controls a tremendous number of weeds in rice. And, you know, I mean at four quarts I still like propanil if I've got broadleaf signal grass, if I've got grasses other than barnyard grass, I'm going to flood with, it's a very, very effective herbicide.

**[08:55] Bob Scott**

So I do, I know we brought Zach on specifically to talk about a new post flood option that we have. But before we get there, I do want to go ahead and mention a little bit about Loyant. Loyant was being developed when I left, you know, and went into administration. So I missed out on some of the development of it and some of the things that you guys learned. But I have found myself recommending quite a bit of Loyant and I think it has a fit under certain circumstances. I love that 8/10 of a pint thing in row rice for pig weed. I think it has an excellent fit there where you can get it out. But Jason, talk a little bit about where we ended up with Loyant on other weeds.

**[09:41] Jason Norsworthy**

So we are in terms of being, you know, a lot of folks spray 8/10 of a pint first Bob I will tell you eight ounces is really where I am. Eight ounces on pig weed. A lot of times if you're in row rice, you're going to have to have multiple applications, eight ounces followed by another eight ounce shot 14 days later. I've had several students has worked on that, Winston Beesinger was one of my master's students and basically we found that to be the most effective program. And not only that is, by dropping it to eight ounces, you really took away some of the risk of injury that we'll see when we start going 16, followed by 16 now Loyant also eight ounces, two inch, three inch rice flatsedge, very, very effective on weed. It's a good coffee bean material. I don't know how low you can go on coffee bean. You can go a lot lower than eight ounces and still kill a kill coffee bean. The problem you running into with Loyant is when you are running that eight ounce right now, we'll contend today that eight ounce rate is basically become the the norm. You are going to give up grass control really the strength of Loyant 16 ounces was barnyard grass. We've got resistance to Loyant today in Arkansas. Unfortunately, we when Corteva launched it, of course some cases of resistance out there in the field at the time of launching and those appear to have increased over time. So with that, a lot of guys are running eight ounces. Actually, I was sitting there talking to a guy this morning and made a recommendation on row rice and made a recommendation of eight ounces of Loyant for pig weed control.

**[11:36] Bob Scott**

And I probably should point Loyant is a phenoxy herbicide and you were right, eight ounces. I'm sorry, I said 8/10 of a pint. I was thinking about something else. We've got 8 to 12 in the MP44 ounces, so I misspoke there. So thanks for catching that. But it is a phenoxy, much like 2,4-D so we do have a seven day prior to PI cut off on that on that product. So if you're going to get that sequential in there, you probably need to start a little bit earlier with that first shot. I'm guessing.

**[12:10] Jason Norsworthy**

Oh, absolutely. To try to get it out there early. You know, if you're in too, I like to see it tank mixed with something, tank mixed with the residual, trying to hold back that pig weed. You know, I'm not going to sit here and tell you that I've got a Loyant tank mix sheet in front of me. I know there's a sheet associated with that, but Loyant with Prowl, that tank mix...

**[12:43] Bob Scott**

Say that again Jason that Loyant with Prowl, we broke up.

**[12:46] Jason Norsworthy**

Loyant with Prowl is going to provide you some residual and I said it's going to help carry you into that second application and I know Prowl is a herbicide, you know, sometimes it works, sometimes it doesn't. But, you know, it's a good cheap option to put out there if you've got pig weed in the field.

**[13:04] Bob Scott**

I 100% agree and I would add crabgrass and probably sprangle top for, you know, later early post applications of of Prowl and it's, that's another product that's been around a long time and I know I was involved in some of the early development of Prowl delayed pre on rice and that's really dating me now but you know that was a big deal for American Cyanamid back in the day to kind of break into the rice business which, which they weren't. So but I do think Prowl factors into the next discussion and that's

getting into post-flood options. And again, I would just warn everybody, we're talking about a lot of products right now. We're getting later on in the season in rice. So watch those cutoff dates. We've got them published in the MP44. Jarrod published not only the the letter of the law, but also some recommendations in his last maybe one or two fact sheets ago or newsletters ago. So we do have that option. But now I want to get into after we've put the flood on, we've kind of got the flood established and what some of our options are there. And you know, Rogue is a product that I got very excited about toward the end of my first run as a weed scientist as we were figuring out how to do research on Rogue and and how to look at Rogue and figuring out that we needed still water, we needed a good solid flood, and you guys are froze up again.

**[14:40] Jason Norsworthy**

No we're good.

**[14:41] Bob Scott**

Okay, I'm having a we're having a bad Internet connection today here the Weeds AR Wild podcast. So yeah, we'll just have to bear with us. But Zach, we went and looked at a very, I would say optimum use of rogue of their at Oil Trough I'm going to call it Oil Trough. It was north of Bradford, wherever that was.

**[15:03] Zach Rees**

In no man's land down there.

**[15:04] Bob Scott**

Southern Jackson County. So what did you think about that field? Talk a little bit about, you know, optimum conditions for Rogue as far as Gowan sees it.

**[15:16] Zach Rees**

Yeah, no. So that was kind of the perfect situation. Zero grades, 40 acres you can get the flood across it very quick when the rice is still growing actively and you can get it down to the water. I mean with Rogue there's a couple of boxes you have to check off before I'm going to see you use it. One of those is having a stagnant flood, you got to have water standing there. The deeper, the better your flood. So it's going to fit on the zero grades and the MIRI systems with straight levees. When I see you guys pushing water down a cascading flood field, I don't like to see Rogue. I mean, it just doesn't fit there. And I don't want you to use the product and not be happy with it. So those fields kind of bathtubs, you know, smaller fields and the rice was smaller when they went to flood. So they were able to get it down into the water. And we saw really good activity out there.

**[16:09] Bob Scott**

I mean, I saw almost I saw no sprangle top in that field for sure. And we know that Rogue is is really good on a sprangle top. There was some sedges and a few other aquatics that seemed to be like annual flat sedge. It had smoked it down. You could see it. That's the other thing about a Rogue field. You can always tell the clean bar ditches compared to a lot of other ones, because all that aquatic junk is not is not growing in there. I was a little surprised to see some suppression. I'm just going to call it suppression of of some signal grass kind of around the edges of that field. And then there was some sesbania that was whitened up and stunted. It was a little bit too big. They weren't able to get the water over the top of it, which is what we'd like to see with Rogue. But it did have activity on it. And and if they do end up

coming back, they'll have a lot easier time controlling it. Or they may not need to come back. It'll probably be a judgment call. But we also saw another grass weed up there that it was showing some pretty good activity on. That was rice cut grass. We don't we don't talk a lot about rice cut grass in Arkansas but we do have it.

**[17:23] Zach Rees**

Yeah. And we've seen that on one grower up north before that he uses Rogue specifically for his rice cut grass problem he's got going. I don't think it has a rating yet and MP44 maybe we'll get one after this year.

**[17:36] Bob Scott**

We don't even have a column for it in the MP44.

**[17:39] Zach Rees**

Yeah, we do.

**[17:40] Bob Scott**

We do? So they've added that, see.

**[17:42] Jason Norsworthy**

Yeah. I think Bob that was back 15, 20 years ago when I did the rice cut grass work I think we added a column then.

**[17:49] Bob Scott**

Need to clean that column up then probably.

**[17:51] Jason Norsworthy**

It probably does need to be, it's somewhat dated now.

**[17:53] Bob Scott**

No I can tell some funny jokes about the numbers in the MP44, but we'll save those for a different podcast. So which one you guys wants to tackle this weedy rice suppression thing with Rogue? I'm not even sure I fully understand.

**[18:12] Jason Norsworthy**

We we did a good bit of work on that. I guess we were probably, my group was, we were the first and we also screened I guess back at that time, screened a large number of weedy rice populations here within the state and there is a gene and weedy rice is called a HIS1 gene and you basically have a HIS1 gene that allows for tolerance to rogue or you have a HIS1 gene that a results in sensitivity to Rogue. That's putting it in layman's terms, that's basically how it how it works. And you know, if you have one that, what we have found whether it be five inches 16 inches seven inches you flood up on weedy rice that is sensitive, it's going to kill it. I'm not going to sit here today and tell you that it can't kill all weedy rice. What we have found on it is if you can get the flood over it, you've got a good chance that you can kill tolerant, weedy rice. But the key there is it's got to be under the flood. If you've got an inch or two of it out, it's not going to kill those tolerant bio types. And for that reason, when I think of Rogue, it really works well in a system like the Provisia system or possibly even a MaxAce, where if you're coming in post flood and

you've got large grass, you can take down that large grass with your High Card, with your Provisia. But if that rice is small, that weedy rice is small and still under the flood, you're going to take it out with the Rogue. The other comment that I'll make on that, and I say this time and time again, I feel like a broken record here is that the beauty of Rogue in a Provisia system or in a MaxAce system, it's going to help provide some protection against outcrossing and essentially it's going to ensure the longevity or help with the longevity of those technologies.

**[20:30] Bob Scott**

Now I think that's a really good point to make. And again, we I mean just dating ourselves but all over the place here. But you know, the Clearfield technology been around 22 years. Nobody expected it to be around seven or eight years because of resistance. So that's a valuable tool for that as well as the Provisia and the MaxAce. Any anything else that you want mention about Rogue before we move on?

**[20:58] Zach Rees**

I mean, I would just throw out tank mixes like we talked about, like barnyard grass. It's not the strongest on it. It's got to be small, but you mix it with one of these other herbicides, like you've got a Beyond going out there or you've got a Regiment or a Clincher or something you're throwing out there. It really helps those in those systems where you got big grass that's probably not going to die to a normal spray. You can take it out if you've got Rogue in the mix because it's working or working on that barnyard grass two ways.

**[21:29] Jason Norsworthy**

Also just one of the point there with Rogue is you've got to get it to the water. And what Gowan has done is they've said on that label it really needs to go out within the first seven days of flooding. You start putting nitrogen on rice and you flood up in you know, a lot of times we'll have a canopy within 14 days of flooding. And once you have that canopy that rice begins to intercept a little percentage of that herbicide, you're not able to get it to the water. I'm not going to say that performance completely goes away. But you're going to see a reduction in performance partly due to larger weeds, as well as inability to get the product in the water.

**[22:13] Zach Rees**

No, that's a very good point, Jason. And just to add to that a little bit, we have some guys doing urea coating with Rogue, and that's one way to help it get to the water. And I'm not saying that's a cure all and you know, still don't want to put it on massive rice that you can't see any water. But that is one way we've had guys that the get more of the Rogue to the water is by coating it on fertilize.

**[22:36] Jason Norsworthy**

And that, that's an option you know we've tested that Zach you know it's it's looked good. The one thing is when we start coating it on fertilizer or at least my thoughts have been is it's slower acting or at least it appears to be a little bit slower when we put it on fertilizer versus spraying it into the flood.

**[22:56] Zach Rees**

No, I definitely agree, Jason.

**[22:58] Bob Scott**

My observation on that was, we did a little bit of that was is got to release from the fertilizer and it as I don't think we mentioned but Rogue is a pre herbicide so it has to when you put it out is it has to a...

**[23:14] Jason Norsworthy**

Pro-herbicide, it has to convert to Benzobicyclon.

**[23:22] Bob Scott**

Pro-herbicide, thank you, pro-herbicide. So it has to convert it into the Benzobicyclon to be active. So I think you're just, do you think you're just adding a step there while it releases from that fertilizer?

**[23:30] Jason Norsworthy**

That and you know, I think it differs also partly whether your own urea whether you're on muriate of potash and you know it's, I think that may have something to play with it also.

**[23:42] Bob Scott**

This popped into my head but are they coating that, I guess is going out post flood so they're not using Agrotain on that probably.

**[23:52] Jason Norsworthy**

Not that I'm aware of.

**[23:53] Bob Scott**

No, not when that would go out. Well, I appreciate all of that. I think that's all really good information. You know, I had a note here, big grass question mark, any other comments or anything else that are out there and, you know, I end up always making one or two Clincher recommendations this time of year Clincher's pretty safe to use later in the year. I think it's the fall panicum specialist when, when weeds get a little bit bigger, coverage can become a big issue with Clincher. We do have Beyond, Postscript applications obviously going out post flood. Regiment up to the cutoff date has a pretty good fit in there in some of those areas. So have we left off any anything that you can think of?

**[24:53] Jason Norsworthy**

You know, you've touched on Regiment, Facet, like you said, Beyond, Facet. You know, just one other comment here and you know, we've got Zach on here. I've a preferred, I prefer Clincher post flood. I mean, that's just kind of where I am. I think we get more bang for our buck when we when we place them there. I think cClincher. I'm not going to sit here and tell you, both of them like water. I think Clincher probably likes a little more water than RiceStar and Clincher seems to work pretty well on this larger grass.

**[25:37] Zach Rees**

My second that Jason.

**[25:41] Bob Scott**

I have opened the MP44 and of course there's an entire section in here dedicated to control of various broadleaf weeds. Take your pick. There's lots a lots of products that can go out a little bit later on, you know, postflood and and post emerge for various forms of control. I know we have some ALS, I know



Zach doesn't want to hear this but we have some ALS resistant sedges out there that we have to, we're having to come back with propanil and Basagran on some of these fields. Grandstand 2,4-D. Grandstand, propanil, I should say. A lot of annual sedge treatments that are going out. I did get a couple of questions and I will mention and this is borderline a plug, but since there's only one place you can get this, I'm going to go ahead and do this and I'll free Jason and Zach. They had no idea I was going to do this, but I had been getting some calls about Lockdown and its availability for indigo control. Lockdown is still manufactured in the state. For those of you that have used it before, you know that a gentleman by the name of Kelly Cartwright runs that business. He only does it by order. So you can't just run down to the co-op and pick it up. So again, this is a special circumstance, but he did want me to let everybody know that usually those batches start coming off in early July. So if you think you need some Lockdown, give Kelly a call at 479-841-3699.

**[27:28] Jason Norsworthy**

And Lockdown, Bob. That's that's I guess Lockdown is what used to be Caligo

**[27:33] Bob Scott**

Used to be the Caligo, only has activity on northern joint vetch, not Indian joint vetch, not sesbania, none of that. But believe it or not, Jason, there's still a few guys that, you know, book it and put it out. pretty regular.

**[27:48] Jason Norsworthy**

Bio herbicide that was discovered by George Templeton, University of Arkansas Division of Ag Plant Pathology.

**[27:58] Bob Scott**

And on that one, I will say that was before my time.

**[28:01] Jason Norsworthy**

That was before mine, too.

**[28:03] Bob Scott**

It actually went away for a while. And then Kelly's company resurrected it, so to speak. And it is a liquid now, when you get it, they keep it cool. You need to keep it cool till it goes out. You need a clean spray rig. They like it to go out, I think with a little bit to dew out there in the evening or in the in the early morning hours, because you're looking for an infection site from the from the bacteria. So I just wanted to make sure everybody knew that that one was there. Well, I think that.

**[28:41] Zach Rees**

If I could just hop in here real quick.

**[28:43] Bob Scott**

Yeah. I was fixing to ask if anybody else had any final comments.

**[28:46] Zach Rees**

Yeah, just we're talking about these late sprays on some broad leaves like we talked about PHIs on these products and watching that, I guess as the Gowan rep, I want to say like also watch your plant backs like

with a Gambit or something you're ten months t soybeans, so if you're trying to do late cleanup of some coffee bean or some indigo, just watch that plant back year.

**[29:10] Jason Norsworthy**

I'll just feed off of that. So I can just tell you, high pH soils you're going to run into increased risk on those. If you've got a 7-5 pH or higher and granted we don't, we try not to grow a lot of rice, but I can take you to areas of the state where we have 7-5 or higher. You're definitely going to increase the risk of carryover of those sulfonylurea herbicides. Yeah.

**[29:38] Bob Scott**

Yeah, that that's two really good points. I'll add a third. You know, we had a podcast, Tom and I were talking a lot about herbicide drift onto rice. We're talking about roundup on rice and you know, getting new path on non-Clearfield rice and that sort of thing. As we get into these later applications on rice, there's another crop growing out there that everybody's got planted and is up now and that's our soybean crop. And so, you know, we are talking about post flood treatments. Those are going out by air a lot of times. And so we need to be aware that a lot of these products can injure soybeans. So you need to be be careful about that as well. Jason, any anything else from you for this one?

**[30:28] Jason Norsworthy**

I'm good. I appreciate it. Bob.

**[30:30] Bob Scott**

Zach, I appreciate you getting on. Lance told me you were nervous. You did just fine.

**[30:36] Zach Rees**

Thank you. I just want to say thank you for letting me come on here as somebody that's newer to the state, only been here for three years. I've listened to every episode of Weeds AR Wild podcast since I got here, and it definitely helped me get my feet under me when I first started. So thank you guys for keeping this up.

**[30:52] Bob Scott**

That's good. That's good to hear. This is new to me, but I'm having fun doing it. I don't know if I'm doing very good, but I'm having fun doing them. So that's fun too. And I guess in conclusion, I remind everyone, as I mentioned before, Zach and I were part of one just recently up in Jackson County, but more are scheduled. Our county agents have got IPM meetings going on all over the state. Just call your local county office. There's also field days coming up at the research station. You can go to our website, [www.uada.edu](http://www.uada.edu) and find those. I'm not sure, they're probably on a lot of our other social media as well. But other than that, I want to thank everyone for joining us for this episode of the Weeds AR Wild podcast series on Arkansas Row Crops Radio.

**[31:43] Intro/Outro**

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