# Weeds AR Wild S5, Ep5 Transcript

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

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

**[00:12] Tom Barber**

Welcome to the Weeds AR Wild podcast series as a part of Arkansas Row Crops Radio. This is Tom Barber, extension weed scientist with the University of Arkansas System Division of Agriculture. Today, my co-hosts again are doctor Bob Scott and Doctor Jason Norsworthy, fellow weed scientist and counterparts here in the state. Fellas, Good afternoon.

**[00:36] Jason Norsworthy**

Hey, it's good to be with you, Tom, and looking forward to talking with you today about some rice.

**[00:41] Tom Barber**

Yeah, and I know last time we did this. Sorry, Bob. I didn't let you say hi, but you can talk here in a minute, haha. Last time we did this week, we brought up rice, talked about, issues early season and early season, weeds and some of the issues we've had with all the rainfall. And, and I know we kind of we didn't necessarily miss some points, we just didn't have time to talk about some of these things. So, but this episode, we're going to focus a lot on our Provisia and Max-Ace rice systems and talk about some key management recommendations within those. So, Bob, I'll let you speak now.

**[01:20] Bob Scott**

Hahaha, well, you can probably blame me for making you guys do do another one on rice in a row. But I just been getting a lot of calls, and I think Jason has gotten some fair amount to on specifically Provisia and Max-Ace rice. There's some restrictions there. There's some differences between the two. And I guess just to kind of kick it off, a lot of calls on small rice. Tom, I know the the label on Max-Ace, I think is, three leaf, four leaf. Y'all correct me. So when you're sitting there, one leaf or two leaf and you've already got grass, you know, the call is starting to come in. What do I do? You know.

**[02:00] Jason Norsworthy**

Well, obviously, Bob, you know, you can't, that’s right. Here we are. You have grass, and if it's barnyard grass, you can't sit there and you can't wait on it. You've got to do something. I'm of the opinion that, for the most part, quizalofop is better on weedy rice than it is on barnyard grass. Not saying that it's not good on barnyard grass, but I think it's all about making timely applications. And so in those in those instances, if I've got one leaf rice and I've got barnyard grass up, you've got to tell them to think about clincher if it's two leaf, or if it’s two leaf rice maybe Rice Star but they can't sit there and wait. Another week, another ten days for that rice to get to three leaf stage before they think about spraying it. Because

I'll tell you, I've done that in plot work and in plot work I'm spraying 15 gallons of water with a backpack sprayer at three miles per hour. You can't ask for any better coverage, and when you wait for that rice to get to that size, the barnyard grass is too large to get good control. And then the other thing you run into, a lot of folks are going to want to go out there and put something in the tank with that Provisia or with that Highcard, which isn't going to be an option if you've got large barnyard grass. So let's go out there early. Let's think about Rice Star. Let's think about clincher, and let's start getting it before it gets some size on it.

**[03:28] Bob Scott**

And this may be a little bit back to basics for some some people that listen to this podcast. But there is a difference between Provisia and Max-Ace and Highcard herbicide with the two technologies.

**[03:43] Jason Norsworthy**

Yes, yes, that's that's correct. You know, Provisia is a non-safened quizalofop. And the reason it's non-safened and is because you have a tendency - isoxadifen is the safer that's in Highcard. When you put that safener in there you improve rice tolerance to that herbicide. But in doing so you're also improving weedy rice tolerance to the herbicide. You're improving barnyard grass tolerance to the herbicide. I'm not saying that it doesn't work, but it's not quite as effective. You know, when we when we spray Provisia and I spray if I spray Provisia and if I spray Highcard, Provisiais a much faster acting herbicide. As a result of not having the safener there in there. So when you start getting to big grasses, you really see the benefit of Provisia over that of Highcard. When you start tank mixing with things, you see the benefit of Provisia over Highcard. I've had very good look two applications of Highcard. If I make those and I've got 12 to 14 days in between those applications. Yeah, it works, it works, it works great. It's just a little bit slower than what I see with Provisia.

**[05:01] Bob Scott**

And I don't think anybody's saying the Max Ace doesn't have. I mean, obviously it has commercial tolerance. We're not saying that it doesn't. Or they wouldn't have brought it, to market, but it's it's a fine line when you start messing with those safeners to safening the crop and not safening the grass, and the weeds that you're going after. And it's difficult. Anybody that remembers Rice Star and the, the development of Rice star from what it was to what it is today, the Rice star HT and that technology remembers, you know, doing all kinds of tank mixes and spiking with whip and other things that we did to try to get that ratio right until the company, you know, I think finally came out with a really good product eventually. But it's difficult to get that, that ratio right. So that's what we're kind of looking out for there. So there are injury concerns that are real. I mean, I haven't seen too much of it myself, but, with making applications of Highcard too soon. Correct?

**[06:01] Jason Norsworthy**

Oh, absolutely. No. If you make them too soon, it's, if you make them too soon, you can see injury. There's also environmental factors that really play into how much injury you see. You

know, we've done work where it's we've done work with rice, we've done work with some other, other crops. But if you spray quizalofop, if you spray Highcard and you spray it or even Provisia and you spray it under cloudy conditions, that plant generally responds negatively or has a greater risk of responding negatively to that herbicide. You know, if we go in and we get a big heavy rainfall event and we have standing water out there, if we've got small rice, and I'm saying two leaf rice, which you're not supposed to be, two leaf rice, if we're spraying it and we have standing water in the field, that rice is stressed, we have a tendency to see a response on that rice, with quizalofop. More so, more so with the with the Max-Ace rice than we do the provisia rice. I agree with you. The first to tell you, Max-Ace rice has commercial tolerance. I'm not sitting here saying that, but I'm saying you're going to increase your risk of damaging that rice if you spray under wet conditions. Temperature also has affect. If it's extremely cool in here, we have difficulty again breaking down that herbicide. I've also experienced in extremely warm conditions. And when I say warm conditions, when we start getting into the 90s where I've seen temperatures 95 plus and we're out there spraying it, and if small rice under wet conditions, I see a greater risk of injury.

**[07:43] Bob Scott**

Yeah, I think I think you and I saw that last year, your trial in Stuttgart, you had quite a bit of crop response, across both all of that in that whole trial, I think more than I did. And you planted a probably a month ahead of me. I would say we had warmer, you know, sunnier conditions. And I didn't have very much injury at all out of any of the treatments. And I do think you saw pretty good efficacy. So there's a trade off, to some degree with that. But, you and I kind of had that if anybody saw those trials last year at Stuttgart and and up at the new station at Jonesboro, Harrisburg.

**[08:24] Jason Norsworthy**

So, so with that, I think what you, what you're confronted with right now if you've got weedy. So I've had some guys call me here and tell me, okay, I've got two, three leaf weedy rice and I've got one leaf, one leaf rice. And you know, in that situation, especially if I'm in a Provisa system, I've got to seriously think about coming in there with ten ounces, 11oz is on the run in and starting to clean that up. If it's barnyard grass clincher and Rice Star is what I'm recommending, but they're not going to help us out again on the weedy rice side. So that's going to force me into a three app system. Yeah, Highcard I really, really don't like a three app system. But again if you planted Max-Ace rice and you've got three leaf we rice out there. We can't sit there and wait until we have five leaf tillering weedy rice. Before we think about doing something, especially if we've got high populations.

**[09:22] Tom Barber**

Well, and I think that's the reason that, a lot of these growers are shifting to one of these systems is because of the weedy rice. Right. So we know what's going to be there.

**[09:33] Jason Norsworthy**

It's no. Absolutely. I agree with you. The guy is planting Provisia rice, I mean they're planting Provisia rice because there's there's weedy rice out there. And you know, that comes back to, you know, these samples there. And then these are the samples that get sent in to me at the end of the year to screen because we didn't control them.

**[09:54] Bob Scott**

So, Jason, just I want to be sure I'm clear on it because I am getting calls on this and I want to hear about your samples. I think that's pretty shocking what you saw this coming year or this past year. But so if I'm sitting there and I've got some one leaf, let's say I've got Max-Ace and it's only one leaf, and for whatever reason, it's it's starting off slow, but I've got maybe I've got two leaf barnyard grass, maybe even some three leaf barnyard grass. And but and I do have a little bit of red rice, but maybe it's kind of like the rice. It's one leaf or two. You're saying it, and I agree, I think that we should run, run that clincher. Run that... some kind of other or whatever the other product like a Clincher there. And then we trust the Highcard to take care of that red rice as it gets a little bigger. We got a little bit of time on the red rice in that scenario. So we try to address the barnyard grass.

**[10:54] Jason Norsworthy**

If barnyard grass is my predominant weed, and I have a lot infestation of weedy rice. And that's that's my driver weed that is driving that system. I'm going to go in and address it at one leaf. I'm going address it with clincher one to two leaf I'm going to address it with clincher with Rice Star. And then I'm going to come back and I'm going to hit it hard with 15.5oz at three leaf, I'm going to heat it with, 15.5oz of, Highcard and, come back with that second application as I'm going to flood.

**[11:26] Bob Scott**

And on the red rice side, if a red rice is coming and it's ahead of the Provisia, the Max-Ace, you know, in Provisia, that three shot thing was new to me, coming back to the field. But, you know, I guess I could, even though I didn't like the efficacy of the Max-Ace three shot, I don't think anybody's really recommending that we don't really have in it in the MP44, but in a scenario where the red rice was three leaf and the the Max-Ace was two, it might be something you have to consider as kind of a ditch effort for the red rice, just red rice.

**[12:04] Jason Norsworthy**

I'm not a big fan. You know, I'm not a big fan, because basically you've got to go to ten or 11 or 11, ten, ten. And the problem you run into Bob with the Highcard is you've got the safener in there, and that's that safener, you really, really have to have that full rate of the herbicide, in order to get your effect. I've looked at it some I haven't looked at it a lot just because the safener has kept me away from that. I've looked at it more with the Provisia 11 10, 10 or 10, ten, 11. So even if I need to pull the trigger early, more likely to pull it in a Provisia system than I am a Max-Ace system. Knowing that the Max-Ace doesn't also have as much tolerance as what I see to the Provisia.

**[12:54] Bob Scott**

So what we did last year, we did have some bigger red rice and we did not. If you looked at the plot, we had all the different options in there, but where we took 15.5 twice, I might consider moving that second application a little closer to that first on the if I had bigger rice, especially if I'm able to get a flood on, maybe after that I'll put them out a little bit closer together on that bigger stuff.

**[13:18] Jason Norsworthy**

You just and I think that's the key to it. You know, we were sitting here talking a few moments ago, it just, it seems like to me over the last, I will say 20, 25 years now, time flies when you're having fun. I guess I've been in rice now for almost doing some rice work for almost 30 years, but it seems we used to flood smaller rice than what we have a tendency to flood now, and I think it would really help us out, at least in terms of dealing with red rice or dealing with what I'm calling weedy rice here. If we could bring those applications a little bit closer together ensure that we get a flood, maybe on four leaf, for us, I walk a lot of rice fields where it's six leaf, it's seven leaf, eight leaf rice before folks want to put water on it. And especially if we're zero grade and we can pinpoint flood these fields, I think maybe we should be going to see a little bit smaller rice. And with that, you're going to have less opportunity for weedy rice to emerge between those applications, or even between the final application and getting the water in there.

**[14:25] Bob Scott**

I'm going to tell you right now, I believe that too Jason and I really blame Clearfield. That was something we saw with the Clearfield system that we never really pushed. Is it did give you that added residual. And then once the flood went on, you got this burst of activity. And so it did make a delayed flood possible. Not that we wanted to promote that at all, but I think that may be a holdover from some of the Clearfield, you know, over the last 20 years of using the Clearfield system, we just kind of saw that move a little bit that way. I don't know, but I'm with you are a long ago. It seems like we flooded a lot earlier.

**[15:02] Jason Norsworthy**

You know, the other thing I'd tell you on that, Bob, is that, you know, by getting it on that four leaf, five leaf, latest being 4 to 5 leaf rice, I like to see if it's if it's zero grade or if it's got minimal slope in it or side inlet, I like to see rogue on those acres. I think rogue has a fit there. Rogue does a lot to protect or or, Provisia has a lot to protect or Highcard from resistance. You know, this past year, I forget how many samples that a while we screened right out. 100 samples in between this past year and then a couple of years before, now at 14, 15, weedy rice samples in the state of Arkansas that have tested positive for Provisia Highcard resistance. And I actually I took those samples and I took them and went back to the greenhouse about a month and a half, two months ago, planted them and, flooded them at I don't know, it was three leaf, four leaf a flooded them and I dropped rogue in the tubs, and I killed about two thirds of the weedy rice that was resistant. It was resistant to Provisia, resistant to Highcard. So I'm not going to sit here and tell you it's going to kill every one of them. But what it does is that in itself is telling me that it's providing me a lot of

protection. And as I also just said there, those were three leaf, four leaf plants. If I have some plants that come up from the time I spray that application or I have some sick plants, maybe I didn't kill them, but I made them sick. And then I put rogue on that field just as soon as I get that water established. That's giving me a tremendous amount of protection against this weedy rice developing resistance to Provisia or to Highcard. The the other thing that I would just tell you on this is every bit of this weedy rice is resistant to the clear field technology. I say that being the full page, the clear field, none of those technologies are going to work in terms of controlling this, this weedy rice. And you just need to know that going in the last point that I'll make on that, that I thought was extremely, I think intriguing is on all of those samples, the 14, 15 samples that we've confirmed so far, 100% of those samples came out of fields that were in continuous rice production. If there's rotation, if there is a rotation in there, we've had some samples sent in, but all of those samples have tested positive. I've yet to find a sample that's resistant to Provisia or Max Ace. If soybean was in that rotation system.

**[17:53] Tom Barber**

Really? None at all? None that came out of a soybean rotation?

**[17:56] Jason Norsworthy**

They’re all in continuous rice.

**[18:01] Tom Barber**

But that speaks volumes. I mean, we knew we had the problem mostly in continuous rice. I didn't realize they were all out of continuous rice like every single one of them. Yeah. Wow. Okay. So, rotation. That that should be the key take home message of this podcast, hahaha. If you miss anything else, rotate the beans. That’s what you need to know.

**[18:21] Jason Norsworthy**

There's you know I. Hey guys I fully understand it. I mean bean prices are not... no one likes where bean prices are today. But also I sit there and say can we continue? I mean, once Provisia fails, once Highcard fails in those fields, I don't know what the option. I mean, I don't know of any other option in rice. And if you're going to sustain the use of those technologies, that's the only way I see to do it is to bring soybeans in here. And, you know, I mean, you guys look at technologies, I look at technologies are at least in the short term, when I say short term, I'm talking the next five years, the next five years, I don't see anything that's going to be here in rice that's going to control Provisia, Highcard, resistant weedy rots. And so if you're going to continue to put rice on those acres, we've got to think about trying to get some soybeans in there. It’s either soybeans or fallow

**[19:18] Tom Barber**

Or leave it fallow

**[19:19] Jason Norsworthy**

Or leave it fallow. I mean that's the other option is to leave it fallow.

**[19:24] Tom Barber**

Leave it fallow.

**[19:24] Jason Norsworthy**

You know, I actually it's funny, I was talking to those guys as well. I mean, there's going to be some ground, there's alwaysgoing to be some ground, I hate to say this at this point, you know, we're several weeks away, but I mean, there's probably going to be some PP, I mean, there's always PP here and there. And I would if, if that's your last acres to plant, I would, I would think about maybe PP if you're beyond the, beyond the date.

**[19:46] Tom Barber**

Right. I mean anything to break that cycle. What you definitely don't want to do is continue to plant for Provisia or Max-Ace rice and continue to spray Provisia or Highcard in those fields.

**[20:01] Bob Scott**

Well and here's there's plenty of data out there that shows just one year out makes a significant dent in that seed bank. And if you do it the first time you see resistance, it makes a bigger difference. You know, rather than letting it letting it go 2 or 3 years.

**[20:18] Jason Norsworthy**

Bob, you know, I think the other thing is that, Adam Famoso and I were having the conversation, the rice breeder at LSU, a lot of what we're talking about here, I'm calling again weedy rice. And so these are the off types of that white rice. These are is going to have weedy characteristics. It's white rice. It's not the red rice that we generally talk about. You know based on I'm just looking at my plot work and cleaning up messes I can clean up through rotation or through fallow. I can clean up a weedy rice mess a lot easier than I can a red rice. And so what? That's, I guess, what I'm saying. But that is, I think from a dormancy standpoint, from a persistence in the seed bank standpoint, I don't think weedy rice, white weedy rice is as persistent in the soil seed bank as what we've seen with this straw hull on red rice that we typically deal with.

**[21:23] Bob Scott**

That, that just makes sense, considering that that weedy white rice went through a breeding program and was bred to come up. Exactly. So that makes total sense.

**[21:36] Tom Barber**

Well, and so as we think about those populations, and I know y'all have laid out some good programs and things to consider here early season, is there something that we need or these growers, consultants need to stay away from when we're making these first applications from a tank mix standpoint, like there's liable to be sedge you out there, broad leaves, coffee bean, I mean, you name it in some of the zero grade fields, can be out there. So is there anything in these first applications that we need to stay away from? From a tank mix standpoint?

**[22:13] Bob Scott**

Well, I'll go first and then Jason can correct me. You know, to me, this is just a graminicide, there's nothing magical about Provisia or Highcard. I mean, you know, Highcard has the safener in it, but, and we've always had trouble tank mixing these with really burner contact burner type products, more specifically with the phenoxy products. We definitely want to stay away from those. But as you get into products like Permit and Gambit, your ALS chemistry, stuff that has residual like facet, Command, Prowl, pretty wholeheartedly recommending them. You know, for me personally, I try to ask what the scenario is if, if they, you know, if they don't have a residual down, I would strongly want to put something with that first application. But in a scenario where they're just going after some bigger red rice, maybe, and I'm really concerned about getting optimal activity, I might say, hey, put it out alone. Be sure to get all the activity you can in that in that application. But if it's just kind of a normal, everyday, proper size, I don't have a problem with those. A lot of those tank mixes. That's kind of where I'm at on it.

**[23:33] Jason Norsworthy**

I'm going to tell you right now, I'm in 100% agreement with everything that that you said. I mean, it's it's part of it's depending on like you said, is whether it's a normal application, if it's a normal application, the rice is growing. I don't have these conditions I talked about a few moments ago cloud cover, water standing in the field, etc. I'm going to go on, and if I've got coffee bean out there, I might put some gambit in in with it. I may tank mix, various ALS products in there. Depending on what the wheat spectrum is. If all of a sudden, what what I'm going to stay away from is I'm going to stay away from 2,4-D. Under no circumstance. Under no circumstance am I going to put 2,4-D. We have a wealth of data grandstand, Grandstand in 2,4-D would be bad. A bad recommendation if you can't.

**[24:34] Bob Scott**

What about loyant?

**[24:36] Jason Norsworthy**

Yeah, that's a good question. You know, I've looked I've actually had decent, decent activity with loyant. I forget what the label says the Provisia, Highcard label says I've actually mix those together and I've have had some success in the, in the past. But if I'm going to run, first thing I'll tell you is if I'm going to run loyant I'm going to be running it at eight ounces. There's no way I'm running it at 16oz with, because I'm after broad leaves.

**[25:08] Bob Scott**

And I was going to say my my first question would be, why are you using loyant? I would first I would determine that we really needed it.

**[25:15] Jason Norsworthy**

You know, I'm using loyant  I'm using it because it got rice flat sedge or I've got pig pigweed. And so I'm in I'm in row rice. I would contend up until prior to 2025. I would question, why are you planting Provisia or Max Ace rice in row rice? Because that's more suited for a

hybrid. But now today we have hybrid Max Ace that would be suited for that scenario. So there could be a case where you, maybe you do have a fit for putting something like a loyant unit, with it, but definitely do not go to 16oz.

**[25:51] Tom Barber**

Well, good info, gentlemen. Last thoughts? This was kind of a shorter podcast, but we just follow up from the previous, so.

**[26:02] Bob Scott**

Well, we touched on it just for briefly there for a second with the tank mixes. But my final thought would be to say that, you know, if you're growing Provisia or Max Ace you're doing it for red rice control, ultimately, I don't know why else you'd be necessarily growing it. And I mean, they're good varieties, some of them. But, you probably have red rice. And so I would really want to be able to focus my applications of Provisia and Highcard on the red rice. And therefore I would recommend, just as robust a pre up front in, in these varieties as I would conventional or Clearfield. You know, I think it all starts with a good pre, a command a command gambit. Prowl bolero, whatever your cocktail is that works the best on your farm. But I don't think just because it's this herbicide technology, herbicide tolerant rice, lets you free of that. And, you know, I think we talked about a tank mix, but I'd still like to see it up front where we're not worried about two leaf barnyard grass right away or something like that. Maybe. You know.

**[27:10] Jason Norsworthy**

I agree with you, Bob, and I just, we'll touch on that. I think, again, starting out, you know, last, last podcast we talked about command. We talked about having, Bolero on the on the front end. I think that's definitely beneficial here. The one thing that you can say Prowl, I mean, there's a wide assortment of things that we could throw in there. The one thing that we also need to think about is, red rice. Weedy rice is generally what we're targeting, but we do have populations of Clincher and rice star resistant barnyard grass in the state of Arkansas today that we can control with Provisia and Highcard. Okay. And I understand those chemistries are very, very similar. But it looks like we've got some metabolic resistance. And for some reason, again it's able to metabolize probably the cyhalofop and the fenoxaprop but not the not the quizalofop. And for that reason there is value to those guys. If you do have resistance to the rice star, or if you do have resistance to the clincher, and you have high barnyard grass populations that are also facet resistant, propanil resistant, I mean, I could go down the line ALS resistant. Maybe a guy does have some interest in putting some Provisia rice, some Max Ace rice. And actually utilizing this technology to control it. But I would caution folks, the number of options that you're starting to get at that point are getting fewer and fewer and fewer. And we've got to bring some diversity in there. Enhance again, the recommendation, let's rotate back to soybeans and let's try to help clean up this barnyard grass problem.

**[28:52] Tom Barber**

Yeah. The rotation to beans could be very well your best management decision for some of these acres and maybe for two years, you know, I know that's probably getting one is a hard ask. Getting two is probably impossible, but, the rotation seems to be one of the the best things we can do in some of these situations.

**[29:13] Jason Norsworthy**

So but just again, put, when you make those applications, prowl, Bolero, command, when you make those applications outside of weedy rice, you're getting tremendous value from putting those residuals with that Provisia. Let's try to take the selection pressure off Provisia, off of Highcard

**[29:37] Tom Barber**

Yeah. In no way, shape or form do these technologies replace the residual herbicides. That's a that's an excellent point. Excellent point. Well all right. Well again I think it's been excellent conversation with you gentlemen this afternoon. I guess we already did. Final thoughts, but I'll ask one more time. We kind of hit some take home points. But final thoughts before we wrap it up. Anybody?

**[30:03] Jason Norsworthy**

I'm good. All right. Good.

**[30:05] Tom Barber**

All right. Bob's good. I'm good. Everybody's good. So we want to thank everyone for tuning in, to this episode of the Weeds AR Wild podcast on Arkansas Row Crops radio

**[30:17] Intro/Outro**

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