

Row Crops Radio S2 Ep22 Soybean Harvest Aids 2022 (8/26/22)

Arkansas row crops radio providing up to date information and timely recommendations on row crop production in Arkansas.

Welcome to the Weeds AR Wild podcast series as a part of Arkansas Row Crops Radio. My name's Tom Barber. I'm an extension weed scientist with the University of Arkansas System Division of Agriculture. And for this episode of the podcast, I believe this is number 22 for our second season of this series. So for episode 22, I'm lucky and fortunate to have my esteemed colleague, Dr. Jeremy Ross, our extension soybean agronomist, with me today to discuss late season soybean issues. What's up, Jeremy?

Jeremy: Hey, Tom, how are you?

Tom: Great. It's been a long time since I've seen you.

Jeremy: Yeah, it's been a couple of weeks.

Tom: So, like yesterday?

Jeremy: Like yesterday.

Tom: Okay. All right. So, you know, we're getting at the end of the season, I know a lot of us are kind of beat down by questions and just the difficulty of the growing season, I guess. But, you know, this time of year is when we start getting questions about end of season issues like soybean desiccation, harvest aid timing, weeds that are starting to poke up out of the canopy. And so I thought it'd be a good idea to sit down and have a little discussion on some of these issues and I guess get some things on record here. So I don't really know where you want to start, but get a lot of questions on soybean desiccation these days. So why don't we talk about, you know, timing, we can get into products, but, you know, just things that we need to consider for management of our end of season soybean crop.

Jeremy: Sure. Yeah. So I've already had a number of calls in the last few weeks. The producers, you know, interested in looking at harvest aides, especially, you know, starting in the south, of course, you know, that was the crop that was planted first. And so, you know, really wanted to try to, you know, speed things along. I think a lot of guys are just worn out from this year with the, you know, the environmental conditions we had and the prices and everything like that. And so

everybody's, I think, ready to wrap this year up. You know, most of where we're at, you know, we still got a few more weeks on getting to maturity. But again, some of these really early planted fields are really getting close to the point of where, you know, we can look at looking at harvest aids to try to go ahead and push these on along. So the first thing we need to talk about is growth stages. So, you know, when you're looking at soybean growth and development during reproduction, you know, we're looking at the top four uppermost nodes on the plant. Then any time we have, you know, a pod that's reached the definition of those particular growth stages, you know, we can say that the field is in that growth stage as long as a majority of the plants are, you know, again, at that certain growth stage. So, you know, what we're looking at here at the end is growth stage 6.5. You know, if you're looking at irrigation termination, that's where we want to start to look at terminating irrigation as long as we have adequate moisture in the soil. You know, our 6.5, it's going to usually be 10 to 14 days after we reach R6. And so the definition for R6 is fully expanded seed within a pod again on for the most uppermost nodes. So as long as we're at that point and then about two weeks past is really kind of where we can look at terminating the irrigation. You know, once we get to that point, we still need a little bit more growth or development on the soybeans before we can really kind of start looking at harvest aids. And so, you know, the data that you worked on Tom, a few years ago, you know is showing that, you know, we really need to be really closer to R7 where we have at least one color pod on the main stem before we really need to pull that trigger. Because if we go anything earlier than that, you know, we could see, you know, some significant yield reduction. And so we know from the data that you looked at a few years ago, you know, where in that 5.5 range, you know, we're looking at about 68% yield reduction. So, you know, pretty much shutting the entire plant down and really not letting that plant continue on with maturity. So, you know, really, you know, you're really affecting your yield, you know, 68% yield reduction. If we start looking at about R6, again, when we get one pod that has fully expanded seed, we're around that 56% yield reduction. So that really starts to, you know, really get in your pocketbook if we go too early on these harvest aids. And the main reason is, you know, you know, not all the pods are going to be at the exact same growth stages. You know, there's going to be a lot that are going to be less developed. And so if we pull that trigger too early, we can really have, you know, reduction in yield. We can also have a huge increase in the seed quality that we'll see. Because, you know, if you go too early, those little seed just don't have the time to fill out. And they're going to be, you know, small and shriveled and really cause some yield problems.

Tom: Well, and I know everybody gets antsy this time of year, right? And we see I've seen some terrible pictures from Louisiana and Mississippi where they're getting all this rainfall right now. And we've got, you know, those pictures show beans sprouting in the pods already. And so everybody's kind of antsy. You know, I've heard rumors of getting a little better price if you can make August delivery. And so, you know, a lot of these questions, I think are stemming from that, are trying to push things a little bit. But, you know, I remember distinctly conducting that research back several years ago, and I believe it was Jim Griffin out of LSU, Louisiana, had some data as well back then. And, you know, he was right there at that R6.5 or a little past. And even though you might still see a little yield hit then, it wasn't near as bad if you go any earlier than that. And so any earlier than 6.5 really seemed to reduce that yield to levels where we don't you know, we don't want to do that.

Jeremy: Right.

Tom: We don't want to take that kind of hit.

Jeremy: So, yeah, looking at the data that you did, you know, if you, if you know for a fact you're at R6.5 and you put a harvest date out, you're looking at about 8% yield reduction compared to wait until R7, you know, to look at it. And once we hit R7, we had, you know, that was the highest yielding compared to the untreated check that we had in your experiment.

Tom: But you really have to know what you're looking for. R6.5 and it's not an easy call on a field wide basis.

Jeremy: No, it's not. And that's been you know, I think everybody has a really good definition and knows what R6 is. And then once you kind of start getting into these decimal points, you know, R6.5 and or 0.8 or whatever you want to call it. That's really where the gray area is. And so, you know, good rule of thumb is, you know, R6.5. So the definition of R6 is one pod with fully expanded seed. Another way of looking at R6.5, if you have over half of those pods in the four most uppermost nodes that have fully expanded seed you can consider that, you know, R6.5 or you know, if you just want to wait you know 10 to 14 days, typically is the average on going from R6 to R6.5. So if we know, you know, if your scout has been marking your fields and you know, ten days ago he said you were at R6, you're getting really close to R6.5. But, you know, you know, our recommendation is a little bit more conservative just because, you know, it is kind of difficult to know exactly when 6.5 is. That's why we go with the R7. We know at that point we're not going

to have any yield loss. You potentially could have a little bit of seed quality. You may have some butter beans and maybe some, you know, off colored seed just because of some of those, you know, less developed pods. But at that point is, is not where we're going to see any kind of yield cost.

Tom: Right. And the other thing I remember from that study is even at R7, if we put our harvest aid application out then, it's still going to be, if I remember right, close to two weeks before we can get into that field and cut those beans.

Jeremy: Well, yeah. And so, you know, it, you know, some of these products need a few days to, you know, do their magic and, you know, be it, you know, to desiccate the weeds, end up in the soybean plants or even if you're following, you know, the label on the different products you still need, you know, probably at least 7 to 10, you know, depending on what label 15 days before you're able to get in there and harvest. And so, you know, really, you know, you're waiting that long. You know, you're probably gaining, you know, 7 to 10 days, you know, using the harvest aid. But, you know, you're really not gaining, you know, a month or something like that. So you are able to speed up everything. You know, it kind of it makes the stems a little bit more brittle so they can go through and your harvest efficiency is a little bit better. But, you know, the main thing, you know, I try to tell folks is once you put a harvest aid on a soybean crop, nothing good is going to happen to it until you get it harvested and out of the field. So, you know, just be aware of how much, you know, harvest capacity you have, you know, treat just blocks of fields. You know, you don't want to treat your entire acreage and, you know, if it takes you, you know, three weeks, four weeks to get across your soybeans, you want to kind of stagger that application so that, you know, you're kind of going into stuff that's just now starting to get right, you know, on the harvest. You know, I've seen some, you know, harvest aids go out and, you know, the beans sit out there for 3 to 4 weeks and seed quality is going to go, you know, down pretty fast because these you know, these plants are getting shut down. And typically, you know, the reason we can't get in and get them knocked out is because of weather. So, you know, we start seeing some weathering on the seed and some molds and mildews and things like that, it causes quality issues. So just kind of look out, you know, look at the long term forecast, kind of schedule, you know, if you can harvest, you know, 250, 300 acres a day or more, you know, kind of treat that, wait another five or six days, then treat, you know, another section so that you're kind of going into stuff that, you know, just getting ready to, be ready to harvest.

Tom: It's a good way to get the combine started.

Jeremy: Oh, it is.

Tom: And get your, you know, if your beans are far enough along, you know, it's a good idea, like you say, I know your harvest capacity hit a couple of hundred acres or whatever that number is, and then get yourself started in the field. Then I will own some fields and then after that, just evaluate it because a lot of our, you know, our beans at the end of the year have grain stems and that makes it a little more difficult. There's leaves that are just hanging on. And so I think, you know, in those cases, we do have to be mindful of our harvest edibles because, you know, those can be ready in a day or less sometimes.

Jeremy: Oh, yeah.

Tom: And you know, if we're using what I consider the best desiccation program is something with Paraquat, so Paraquat was 3 pounds of sodium chloride. You know, depending on the maturity of the beans, you can be in there pretty quick. But the Paraquat free harvest time was 15 days. So just be mindful of that. You know, I think you mentioned before we got started the Paraquat, you know, might be spotty in areas, may be short. I don't know. I haven't heard anything on that. But you know, if you can't find Paraquat, to me, the next best thing is to go with Sharpen, the ounce and a half to two ounces with the chlorate, and that's a seven day free harvester with that. And so Aim is also registered but in my opinion it doesn't do quite as good a job as Sharpen on the desiccation side. So but the Paraquat by far is the best. So in my opinion anyway after looking at this but we need to be mindful of that pre harvest too. All right. Well, so is that all we need to cover Jeremy noticing by the silence? That's an uncomfortable pause.

Jeremy: That was so nasty.

Tom: Well, so the other thing I've been getting questions on is the grass is poking out the top of the canopy, late season grass. And a lot of our crops have been an issue. You know, the Paraquat portion, if we get good coverage, you can dry down some of that material by making it a little easier to harvest and move through the combine. Roundup is also labeled as a harvest aid. It's not a fast acting harvest aid, though. And so you just need to be mindful. It's going to take a little longer for the Roundup work to desiccate that grass. So it may be an application earlier in the year than your desiccation application.

Jeremy: Then you're just talking about grass because, you know, unless you're talking about conventional beans, most of our beans are tolerant to Roundup.

Tom: So, yes, so we're talking about grass control. You know, I have used Roundup as a harvest aid on conventional or Liberty beans.

Jeremy: I have too.

Tom: It still doesn't work as good as Gramoxone. But you can mix it with the Sharpen and you know, it looks pretty good. But yeah, any vines that are out there, again your Gramoxone is going to if you can get good coverage going to do pretty good with that. The Sharpen and then the Aim, I'd put them in that order as far as vine desiccation. Oh and just remember if we're using, well any of them really, we need to add a surfactant with the PPO's, like Aim and Sharpen, plus crop oil or a methylated seed oil is going to be better, with those. But Jeremy, what else do we need to talk about?

Jeremy: No, that's I think, for the harvest aid, and, you know, just kind of end of season. You know, we're getting close to the end. You know, there's still some fungicide going out and some insecticides and, you know, a lot of crops looking at terminating the irrigation. So we're kind of at the finish line and hopefully, you know, we can make a strong, strong run here at the end. You know, USDA has us pegged, you know, setting a new state record at 53 bushels per acre. You know, I've asked some and you know what I've looked around this summer. You know, I don't know if we're going to be able to hit that or not. I mean, we've got some really good looking beans. You know, there's some really tall beans out there because of the temperatures we've had. But, you know, there's a lot of space between those inner nodes and, you know, there's a lot of lot of area that we're going to have to catch up on to really kind of hit that mark. But, you know, I've seen some good beans, I've seen some bad means. But, you know, I'm hoping we can finish up here at the end. Prices stay good. And, you know, we can have a really safe, quick harvest this year. You know, again, just kind of watch out for the weather. If they're calling for, you know, a tropical depression or something like that coming in in the next 2 to 3 weeks, I'd hold off on my harvest aid application just because those beans are going to weather that that, you know, those storms better green than they are at brown. So but just be careful. You know, if you have any questions, don't hesitate to give us a call and we'll try to help you as much as we can.

Tom: All right. Well, that's good advice, Jeremy. And I want to thank you for being on the podcast today. And you know, that's what we wish you and everybody. Just a safe and bountiful harvest. Hope we can, like you say, just finish this one out and wish everyone the best on that. Coming up in the next week or so, I plan to do another one of these possibly talking about ryegrass. And we've talked about what kind of an expensive crop it's been this year. And I know nobody wants to spend any more money, but ryegrass is one of those weeds and starting to take over. And if we're not careful, we're going to have some big, big issues with it next year. So we need to plan on maybe spending a little more money this year and putting out some residuals on our troubled ryegrass fields. And I'm going to cover that a little bit in the next couple of weeks coming up, possibly with my graduate student that has a big project in ryegrass. So I want to thank everybody for tuning in to this episode of The Weeds AR Wild Podcast Series on Arkansas Row Crops Radio.

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