

Episode 5: Dicamba

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Blake Moore:

My name is Blake Moore, natural resources and horticulture agent.

Dan Severson:

Hey I'm Dan Severson, ag agent.

Jake Jones:

I'm Jake Jones, Kent County ag agent.

Katie Young:

And I'm Katie Young, digital content specialist.

Blake Moore:

Welcome to Extension 302.

Blake Moore:

Good morning. And welcome to Extension 302. My name is Blake Moore, and joining me today as always is Dan Severson, the living extension legend. Say hi, Dan.

Dan Severson:

Hi Dan.

Blake Moore:

And we also have Jake Jones. He is the face of extension 302, Jake. Hello.

Jake Jones:

Hey everybody.

Blake Moore:

So today we want to talk about Dicamba. It's been in the news recently, and we wanted to give you an episode to describe what's going on there and what's going to happen in the future. So to present that we want to talk about herbicide resistant weeds in Delaware, and why this topic brings Dicamba back into the light.

Blake Moore:

Herbicide resistant weeds have been documented since the 1960s, and the number of species has grown quite a bit over the years. Herbicide resistance differs from herbicide tolerance, and that resistance occurs when a species, which is normally susceptible to a class of herbicide, it develops

defenses against that class. Herbicides are broken down by site of action or groups which attack a plant in a certain way. They are broken down even more by chemical family and active ingredient, such as glyphosate, atrazine, and 24D.

Blake Moore:

The key thing to know when selecting herbicides is the group number, which can be found on all herbicide labels. This group number will help producers diversify the site of action they use in their weed management plan. And this helps slow down the selection of herbicide resistant weeds. As mentioned earlier, the number of species exhibiting herbicide resistance is increasing, but what is even more alarming is the increase in number of species that are resistant to multiple sites of action or herbicide group.

Blake Moore:

Palmer amaranth is a perfect example of this. It is known to be resistant to up to five different sites of action in certain places across the United States, Palmer amaranth first started making waves in Delmarva fields around 2009, and began spreading rapidly across the peninsula.

Blake Moore:

I worked as part of the noxious weed unit with the Delaware Department of Agriculture, and with my mentor, Todd Davis starting in 2013. So I came in around the same time that Palmer amaranth was added to the Delaware noxious weed law, which was 2012. And it was due to the aggressive spread of the weed and the penchant for it to develop resistance to multiple herbicide sites of action.

Blake Moore:

Palmer amaranth has created major production issues across the U S, which has changed the way farmers must approach weed control. Farmers must diversify the sites of action used in the field and aggressively scout for plant populations that may exhibit resistance to additional sites of action. Even though many farmers have been vigilant with their weed control, there are still species becoming resistant to the limited number of herbicide groups that we have. There in lies the issue.

Blake Moore:

The last new site of action was developed in the 1980s, and there are no new pending herbicide sites of action coming to market in the near future. Even if a new site of action is discovered, it will take years of testing, approvals for the technology to be available to farmers. In response to this, chemical companies are researching alternative ways to provide relief for farmers battling increasingly harder to control weeds. And that's where Dicamba comes in.

Blake Moore:

Today, we will speak with Mark VanGessel, Extension Weed Specialist for the University of Delaware Cooperative Extension. He will talk about the history of Dicamba, what it's used for, what the new regulations we're hoping to do, and what risks are involved with conditional use of this product. Welcome Mark.

Mark VanGessel:

Good morning. How are you doing?

Blake Moore:

Great. Thank you. We've also asked Chris Wade, the environmental program administrator for the pesticide sections with the Delaware Department of Agriculture to join us today. And he'll talk about conditional use regulations that were approved in 2016, and the court decision to vacate this approval in June 2020. Welcome Chris.

Chris Wade:

Good morning, everybody.

Blake Moore:

So Mark, for those not in the know what is Dicamba and when was it first put into use and why?

Mark VanGessel:

Well, Dicamba is a herbicide that's been commercialized for close to 50 years now. It was in the 1960s when it was first commercialized. It is a herbicide that's very effective on controlling a number of broadleaf weeds, yet it does not injure grasses. So it was used in corn. And we know it was developed for use in corn, in wheat, in pastures. And a lot of people have been using it on their lawns for years.

Mark VanGessel:

So it was developed a number of years ago. It is in a class of herbicides that we call synthetic auxins. It controls broadleaf weeds. It controls both annuals and perennial broadleaf weeds. Yet it's quite safe to grass species. And that's why we use it in the crops that we do.

Jake Jones:

So Dicamba has been around for a long time. Why is it recently in the news again?

Mark VanGessel:

Well, as Blake introduced the idea of herbicide resistance, we have a number of species in ag that have become resistant to a number of different herbicides. And farmers are having more and more difficulty controlling it with a lot of their other chemical herbicide programs. A lot of them are shifting to using non-chemical strategies, as much as they can. And while they help with reducing weed severity, they don't eliminate it. So there's still a need for herbicides in their overall weed control program.

Mark VanGessel:

They have gone back to using Dicamba more often than they had in the past. You know, as I mentioned, it was released in 1960s. And since then, a number of other chemicals have been released that are relatively effective comparative to Dicamba. Certainly in the 1990s, we had Roundup Ready crops come out. And Roundup does a lot of the same features as far as killing weeds as Dicamba did.

Mark VanGessel:

So there was not as much of a use or demand for using Dicamba, but with more Roundup resistant weeds now, [inaudible 00:06:23] resistant weeds, there's a need for alternative chemical that will control them. And that's where Dicamba has fit in. Blake talked about Palmer amaranth, and Dicamba does a nice job on controlling small Palmer amaranth plants. But it also controls things like horseweed

and ragweed, which are other weeds, common weeds that we have resistance to in the area. So it does a nice job of providing a broad spectrum tool for a lot of our farmers.

Mark VanGessel:

One of the other things, the issues that we're starting to hear more about is, for a number of years in the seventies, eighties and nineties, Dicamba was up was often used in combination with other herbicides. So as a result, Dicamba was used at lower rates than it is being used now. Because of the resistance, we're relying more on Dicamba to control these weeds. And so the rate of Dicamba is often higher now than when it was used in the past. That also contributes to some of the issues we've been hearing about with Dicamba.

Jake Jones:

Are there any crops that were genetically modified where Dicamba could be used as a weed control option? Because it was always an option in corn since it was a grass and it has broadleaf activity. So were there any crops that have been developed for Dicamba use recently?

Mark VanGessel:

Yes. In the early two thousands, when Roundup glyphosate resistance became a bigger issue, folks started to look for options. And they discovered a gene that conferred resistance in broadleaf crops to Dicamba. And that gene was isolated and they put it into crop plants such as soybeans and cotton. And the technique of moving that into these crops was genetic modification, a GMO. And prior to that, Dicamba was not used on soybeans, because soybeans are very sensitive to Dicamba.

Mark VanGessel:

Going back to your previous question, Jake, that's one of the other reasons why we're seeing more issues with Dicamba, because where we're using on crops that previously we couldn't use it on. Until the Dicamba resistant soybeans came out, nobody used Dicamba on soybeans, because it would kill them. Same thing with cotton. So that's expanded its use in the last couple of years.

Jake Jones:

Okay. So some people are growing Dicamba resistant beans and some people aren't. Can you give us an idea of how many of those Dicamba resistant beans were used in Delaware this year? Do you have any idea on that? How wide the adoption rate is, I guess would be my question.

Mark VanGessel:

So percentage-wise, I don't have a real good handle on it. I would say probably close to 25% to a third of the soybean acres are with the Dicamba soybeans. But a lot of farmers are planting them, not just for the Dicamba trait, but because the companies, the soybean breeding companies put this resistance trait into their elite lines. So a lot of times, farmers are buying the soybeans because of other characteristics like yield, disease resistance, standability. And they're buying it for those traits. But lo and behold, it's bringing along this Dicamba trait.

Mark VanGessel:

So while I would venture to say up to a third of the soybeans might be these Dicamba-resistant soybeans, not all of them are being sprayed with Dicamba. And in fact it's a fairly low percentage of those beans that's actually being treated with Dicamba.

Jake Jones:

Okay. And I think you've touched on the biggest concern with this technology is the perhaps neighboring fields where one person has Dicamba resistance and the neighbor is growing just Roundup-resistant beans. Is there anything else you want to say about the concerns with using this technology in Delaware?

Mark VanGessel:

Dicamba is an acid. The actual molecule itself is an acid. And we won't get too far into the chemistry here, but it's an acid, and in order to make it stable in use in liquids and so on, they make as a salt. And so over the years, Dicamba, the salt of Dicamba has changed in terms of making it a heavier molecule so it doesn't move off target. And there's been some-

PART 1 OF 4 ENDS [00:11:04]

Mark VanGessel:

It doesn't move off target. And, there's been some, since the release of the Dicamba resistant soybeans, there's herbicide formulations of Dicamba that were specifically developed to be less volatile, less chance for moving off target. So, the farmers, before they can apply, they have to buy these specially formulated products of Dicamba. They have to apply them in specific conditions. Things like, they cannot spray over a certain wind speed, they've got to avoid spraying under hot conditions, if they are in close proximity to sensitive crops or sensitive plants, they can't spray within a certain [inaudible 00:11:53] to protect those plants. So, there's a lot of precautions that are in place. The problem is, is that Dicamba is, there's a number of plants that are very sensitive to Dicamba. So, even very low rates of it can cause injury in these sensitive plants.

Mark VanGessel:

And soybeans are probably one of the most sensitive plants that we have. So, the concern for a lot of farmers in Delaware is, they'll plant their soybeans right up to their neighbors soybeans, and making sure that the farmer with the Dicamba soybeans sprays their soybeans in such a way that it doesn't damage the neighbor's. Likewise, spraying in close proximity to homes, yards, taking the precautions that it stays in the field and doesn't move off target.

Mark VanGessel:

So, one of the problems of moving off target is just the physical droplet, as it's leaving the sprayer, can get blown with the wind and get moved onto sensitive crops. A Dicamba also is a very volatile and volatility is once that droplet lands on a surface, it evaporates and becomes a vapor and that vapor then moves and potentially can damage sensitive crops. That's where the idea of coming up with different salts that prevent that volatility came in. There's a number of restrictions that farmers have to follow to minimize volatility. For instance, they have to be careful what else they spray with Dicamba so that it doesn't increase the likelihood of volatilization. So, the concern with Dicamba is both physical drift as it's leaving the nozzle, but also avoiding volatilization that could occur shortly after that.

Speaker 1:

So, it's not a public health issue, it's literally just a risk of injury to other crops from off target move.

Mark VanGessel:

That's correct. Yes.

Speaker 2:

So, Chris, we're going to touch on the circuit court ruling, but could you give us a brief description of the regulations permitting the use of Dicamba? The circuit court, I'm pretty sure from what I read, is geared more towards a commercial [inaudible 00:00:14:09]. So, there's still some Dicamba products out there for home use and this and that, but can you give us just a brief description of what you guys are regulating or what we can do as farmers permitting the use of Dicamba, especially over for over the top weed control.

Chris Wade:

Sure. The over the top weed control was a conditional registration by EPA in 2016, and that conditional registration covered the 2017 and 2018 growing period. And when I say conditional registration, when you register a product normally it goes... I wouldn't say indefinite, but the company has an option to renew the registrations, but normally the registrations last for more than just two growing seasons. So, this conditional registration EPA granted, they wanted more data to be gathered during the growing seasons, just to make sure that this registration of this product was safe for other crops and the environment. So, with that being said, after the 2017 and 2018 growing season, some of the issues arose, mostly in the Midwest, with off target volatilization or misuse of the product. When they reissued the conditional registration for 2019/2020 grain season, they required extra data from the registrants to be collected.

Chris Wade:

And that included field studies for examining offsite movement, investigating temperature effects, volatility of Dicamba, ecological effects, and also examining the effects of pH lower pH and, or tank mixes. So, those were all things as they added that the registrants had to gather that data during the growing season. And they did this through surveys, their own studies, complaints gathered via States. That was all kind of gathered, data gathered, which I never got to talk about the court decision in a second, but basically that's the general thing, it was conditional registration for two years, it's not a normal thing. And then they added additional conditions for the 2019/2020 season.

Speaker 2:

And we all know, because we've had people on before, but the label is the law. So, whatever you're doing, make sure you not just read the label, but follow the label.

Chris Wade:

Correct. And I know we say it all the time, but label is the law and I know people get tired of hearing it sometimes, but that's the truth. Everything on that label is enforceable. And, as a user of the product, you want to think of it in a way of, if you follow the label directions, you're protecting yourself and you're also protecting the product's future, because if the product is continually misused or there's issues found with the product because labels not being followed, that puts the product in danger of

being pulled, canceled or have a court decision like we have on this, on the current. I came over top users because there was so many issues, and I'm not saying that there was all people's faults, there could be other things that play, as far as the volatility goes, but label's definitely law.

Speaker 3:

So, Mark, when these regulations came out in 2016, what type of guidance and training was provided to Delaware farmers to address some of these risks? Especially when it came back into focus for different uses.

Mark VanGessel:

I think cooperative extension. During that time had as part of their normal programming emphasized Dicamba and some of the issues associated with Dicamba use. In addition to that, and probably more importantly, the EPA required that all applicators go through a training to make sure that they were aware of the restrictions, and guidelines for use the Dicamba. Again, I think extension was part of that training, but a lot of the companies, a lot of the distributors, a lot of farmer groups held meetings just to emphasize the Dicamba issues and proper use of Dicamba in this region.

Mark VanGessel:

Now, other states had additional requirements that were imposed. Some states put in a deadline, a cutoff date on when it could no longer be used in the summer. A lot of states did a mid to late June cutoff date to avoid applying Dicamba during days of high temperature, high humidity, which would increase the likelihood of off target movement. But Delaware didn't take that step, and part of it is, we've had relatively few number of cases reported of Dicamba injury. So, I think a lot of the farmers that are using it, are taking a lot of the precautions.

Speaker 2:

The federal court has recently withdrawn a conditional uses regulations for Dicamba. From what I see, it's been three trademarks named Dicamba containing pesticides and herbicides. Why did they make that decision? It's a three part question. Why did they make that decision? When does it go into effect and what is the history behind the decision?

Chris Wade:

Sure, no problem. So, there was a petition filed in the Ninth, in the U.S. Court of Appeals Ninth Circuit against CPA for the 2018 registration decision. And that petition was filed by the National Family Farm Coalition, Center for Food Safety Center for Biological Diversity and the Pesticide Action Network of North America. And basically, part of that petition was that EPA's 2018 registration decision was based off of insufficient evidence and therefore violated FIFRA, which is the Federal Insecticide, Fungicide and Rodenticide Act. So, basically they were saying that there wasn't enough ecological data to support the re-registration. And that was due to many of the complaint cases in the Midwest. They were basically saying that there wasn't enough data collected from this, because on a lot of the cases it took multiple years for the States to figure out why there was a damage or a volatility, or a drift because it's very hard to pinpoint in certain cases why the product drifted or why the product volatilized.

Chris Wade:

So, it was taking States all the resources in their pesticide programs to investigate these claims. And some States had hundreds of complaints, they just took a long time to actually figure out what

happened. And a lot of times they sampled the soybeans and the samples came back with no non detects. I mean, obviously you could see the damage to the crops, but there's no way to really pinpoint.

Chris Wade:

If you have five fields around one field and that one field gets damaged and the other five all applied Dicamba, it's kind of hard to tell which way it came from or what happened. So basically, with all that being said, [inaudible 00:20:50] basically said that there wasn't enough evidence collected data wise to support re-registration because of all the issues in the Mid West. And I can say for Delaware, we had zero official complaints on Dicamba misuse or for over the top applications. I know there might've been some cases out there that were not reported to the department, but I can only go by what's been reported to us. Because we do have investigators that go out, have a drift complaint or a damaged complaint, while these are challenging investigations to figure out we did not receive any official Dicamba complaints during this time period.

Mark VanGessel:

One of the challenges with diagnosing Dicamba problems is that if you apply Dicamba directly to a field, you're going to see injury and twisting, and curling on sensitive plants within 24 hours. But, what we're talking about here is really small amounts of Dicamba that move off target areas as a result of drift, or as a result of a volatility. We know soybeans are one of the most sensitive crops, we can cause severe injury to soybeans at 1/1000th of the normal use rates. So, really low...

PART 2 OF 4 ENDS [00:22:04]

Mark VanGessel:

....1/1000th of the normal use rate, so a really, really low rate. And one of the challenges in identifying and trying to track down what's going on when we see injury, is that at those really low rates, it can take 10 to 14 days before the symptoms even start to show up. It's well past the time of application that we start to see this injury. And the severity of the injury also can change with the stage of the crop. So again, back to soybeans as an example, these really low rates of soybeans at an early vegetative stage when there's just small plants, just leaves, maybe a little bit of stunting, but the plants often grow out of it and doesn't impact yield. But that same amount during early reproduction stage, just as the flowers start to come out, you can all but wipe out timing of when the injury occurs as a big impact on the production of these crops as well.

Speaker 2:

Dr. VanGesell, this goes back to if you're using ... Well, as a farm in general, keep records because you never know when it might come back to bite you that you don't have that record. And you're talking about yield. We're talking about yield loss, palmer amaranth, pigweed, all that stuff, can cause some yield loss. I've read it does create yield loss if these weeds growing in the field, and are taken away from the beans that our producers are growing. Correct?

Mark VanGessel:

Exactly. I think one thing we want to keep in mind about this discussion is that farmers aren't spraying herbicides, whether it's Dicamba, or Glyphosate, or anything. They're not spraying it just because they like to spray it. They're spraying it because they're trying to control the weeds that are in their field. If they don't control those weeds, those weeds can compete and reduce yield, and reduce yield to the

point where the crop is unharvestable because the weeds are so bad. Weeds that aren't controlled produce seeds, so that goes into the soil. That becomes a problem the next year. Weeds can interfere with harvest. They're using these herbicides as a tool to control these weeds. That's one thing to keep in mind.

Chris Wade:

We always hear at grow meetings, or after the fact in the wintertime meetings, "Yeah. I saw some Dicamba damage out there," but we never got it reported to us. So therefore, when I report to EPA, we've had zero official complaints. That's why Mark had mentioned some states put in some restrictions. That's why Delaware never did extra restrictions to a label, because we just didn't have a problem with it here. Knock on wood. I know there's issues this year as far as using it up. So, the second part of your question, when does it go into effect? Basically, June 3rd was when the cutoff, or when the cancellation ... When they rescinded the registrations. So, if growers had the product in their possession as of June 3rd, then they could still use it according to label. They can still use it.

Speaker 2:

Up until-

Chris Wade:

Oh yeah. Sorry. Yeah. So, cut off was June 3rd, but then EPA then came back with the cancellation order of giving instructions on when the product can be used up until for ... Because normally when you cancel a product, you have a provision to use existing stocks. And this court ruling basically said, no one could use it. And so, EPA appealed that and put in their cancellation order, which has since been challenged, but then it was upheld. The EPA order was upheld. So, it can be used until July 31st of 2020. These products can be used. So, it's a little confusing, but if you had the product in your possession as of June 3rd, you can still apply the products until July 31st of 2020 without any issues as far as regulations go.

Speaker 2:

So from when I was reading the regulations, it prohibits transfer or the movement of Dicamba. We have to, as farmers, have to dispose of it. How do we dispose of it if we can't move it? That's still up in the courts as well?

Chris Wade:

No. So, it's an 11 page document for the EPA issued. So, the final cancellation order of the three Dicamba products, XtendiMax with vapor grip, technology, Engenia, and FeXapan. So in that, on page 11, it gives you all of the final cancellation order and also the provision for existing stocks. So, part of that, the distribution of sale is existing stocks. If it's being moved for sending it back to the restaurants, as far as the collection goes ... So, if it can be used in the field and you're sending it back, it can be still moved that way. It just can't be sold to farmers or commercial applicators for use. You can ship it, if you're disposing of it for proper disposal.

Speaker 2:

I tried to read that document. And when they started throwing in the lawyer lingo, I started getting lost, but-

Chris Wade:

Oh yeah. It's a long confusing document. But if you go to page 11, they kind of summarize it all on page 11. So, I would say to anyone listening to this podcast, if you go to page 11-

Speaker 2:

Page 11 of what? Where can they find this?

Chris Wade:

If you go to the EPA website ... I can maybe send to you later. I don't have it memorized. There's an EPA website for Dicamba cancellation order. If you Google it, it'll come up. If you put in EPA over the top cancellation order, you can get it to come up, but I have a web link. I'm not handy at the second. Basically on that page, it says it's the final cancellation order, and it's an 11 page document. On the final page, it gives you all the highlights basically of how to get through it. And I believe we had a press release, and in that press release, we cited that website, which like I said, I don't have it handy right this second. It's a long, crazy, extended website name.

Speaker 2:

And your press release was on the Delaware Department of Agriculture website?

Chris Wade:

Yes. And it was on all social media platforms. And I sent it out to Mark VanGesell. I think he was going to put in the weekly crop update, and we sent it to other outlets as well. Farm Bureau.

Speaker 2:

That's good we're all working together to get this up.

Blake Moore:

And since we're on the topic of disposal, Chris is, are you guys still doing the Environmental Sweep Program to help farmers get rid of products that they no longer can use? And would this be a program that they could dispose of their products that they're not able to use?

Chris Wade:

Yes. We still have the program. The Environmental Sweep program is still active. We're actually in a bid year. So, the contract's up for bid right now for a contractor. Yes, we do. That program does collect any old obsolete, unused pesticides. There's no enforcement action. It's an enforcement free program. If you call us and say you have a barn full of chemicals, whether they're leaking or broken bags or whatever, it's an embassy program. We come out, do an assessment. And as you know, Todd Davis helped out a lot, and you helped out as well when you were here, with assessing these sites. And then, we go out and verify, and then the contractor comes out to the farm and does the pickup, using all their ... They over pack a lot of the leaking jugs and stuff like that for safety.

Chris Wade:

And now, the department actually pays the price per pound. There's no cost to the farmer, and we do have limits on pounds, and we can ... Sometimes if the truck load can handle it, we'll will go over the pound limit for each farmer. But, the farmer can, a lot of times, negotiate with the hauler. If they have additional pounds, they can pay our rate and get a really good price. And it's a really cheap price that we

pay for the pounds. But as far as the Dicamba products go, I would say at this point, there's probably going to be ... If you have existing stocks left over after this cancellation of registration, it would be best to contact your dealer or the product registrar or distributor and see what kind of return policies they're going to have for this particular product, because it was such an odd cancellation.

Chris Wade:

And there also is the 2021 ... These companies are trying to get reregistered for 2021 growing season. I would hate for people to dispose of this stuff, and then have the 2021 registration be approved with additional restrictions. And then, you have all this product you returned that you could have actually used. I know it's very confusing because a lot of farmers, as you know, have to plan for next year already, what seeds they're going to purchase.

Chris Wade:

So, it's a really fluid situation as far as the product goes. So, I would say we do have the ESP program. As far as the Dicamba products, I would contact your registrar and/or your dealer for return of those products to make sure that ... They might have information that the states don't have yet as far as the 2021 growing season. They might have an inside track on what's going down with that. So I would say for those disposals, I would contact your dealer or the product registrars themselves.

Blake Moore:

Dr. VanGessel, how will it affect Delaware farmers, and then Delaware's economy as a whole would be the broader picture?

Mark VanGessel:

The court case, I guess, is what you're asking about as. As the restrictions are right now and being able to use it through the end of July, it should have little impact on Delaware farmers for this year. The potential problem are those folks who may have purchased more product than they actually needed for this year, and whether they'll be able to use it next year, so whether they'll be able to hold their product until the following year. And that's a common thing. A lot of times, farmers are not exactly sure what products they're going to need or how much, so they purchase what they think they might need. If there's extra products, they'll carry them over. The question will be whether they'll be able to use these formulations of Dicamba next. From a kind of a practical standpoint for Delaware farmers, while we have a lot of herbicide resistance in this area, we don't have as severe of a problem as some of the Midwestern states or the mid-South states. Products that those regions can no longer use because of resistance, we're still able to use some of those herbicides here.

Mark VanGessel:

So, we are not as in a dire situation. And so, for our three most common resistant species, the palmer amaranth, the common ragweed, the horseweed, we do have registered products that are effective on them. So a lot of times, that does require buying special seeds to use some of those products. So, it's not as dire, I guess, of a situation if we were to lose registration, as it would be in other areas. By the same token, it's always nice to have as many options as available, particularly for resistance. So, that's one of the advantages that the Dicamba soybeans had, was to use a herbicide group that normally is not used in soybeans. It was a useful tool from a resistance management standpoint.

Speaker 2:

Yeah. Sorry, Dr. VanGesell. I agree. With farming, it's a low margin, high risk endeavor, and a lot of our farmers purchased their inputs a while ago, and now they're in flux of what they can and can't do. And now, they're going to be in flux again, depending on how we move forward. So, I appreciate you and Chris for ... I just feel for our farmers, and I'm happy to know that it's only 25 to 30% in Delaware, because like you said, out West-

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Chris Wade:

It's only 25 to 30% in Delaware, because, like you said, out west it's a lot more.

Mark VanGessel:

Yes, and regardless of the way that the final ruling comes out, just some certainty for farmers is critical at this point. A lot of the ways our farmers are using Dicamba are in relatively lower risk scenarios. I think a lot of the Dicamba used in soybeans the past two years has been as part of a burn-down herbicide before they planted the soybeans. They're planting no-till. There's lots of vegetation out there. They have to control that vegetation before they plant their soybeans.

Mark VanGessel:

That's where having the Dicamba soybeans has been useful. They could use Dicamba, and could plant soybeans one to two weeks later, and not injure the soybean, and that's usually done in late April, May, before a lot of vegetable crops are planted. It's done when it's typically cooler, so much less risk for off-target movement, and for volatility to occur. I think a lot of our usage has been in some of those lower risk scenarios.

Mark VanGessel:

Here we are June 24th, temperatures getting up into nineties. This is not the time of year to be spraying Dicamba. This is where our risk becomes higher, so timing of application has a lot to do with when the potential risk of injury increases. I also want to point out that we're talking about these Dicamba formulations that were developed for soybeans.

Mark VanGessel:

This ruling does not include other forms of Dicamba, so the Dicamba that's in the Weed B Gon and the turf products are not impacted by this. Some of the older formulations of Dicamba that we use on wheat and in pastures are not impacted by this. This is strictly for three of the four products that are registered for use in Dicamba soybeans.

Blake Moore:

I think we've pretty much covered that they're being banned July 31st. That's an important date to know, and that the stock must be used up by then. And that, really, this is getting to be the dangerous time to apply Dicamba anyway, for these formulations. Is there any suggestions for farmers looking to use these products up in the short window? I mean, would it be worth recommending? Is it getting too dangerous to spray it anyway at this time of year?

Mark VanGessel:

A lot depends on the weather, and given what's happened the last four weeks with weather, I'm not going to predict anything. But as a general rule, yes, this is not the time of year that we would be recommending spraying Dicamba in Delaware. We just have too many sensitive crops. And we're in that time of year where risk of off-target movement increases dramatically. Anyone who has it and is considering using it needs to use it with extreme caution this time of year.

Blake Moore:

A farmer treats his field with Dicamba, how many days usually has to go by before the volatility is no longer an issue?

Mark VanGessel:

Good question. I don't think we have a real good handle on that yet, Blake. It certainly, within 24 hours, has a chance for off-target movement. Someone who's spraying it, say today, say it's a nice, relatively calm day, the conditions are ideal, they spray at late afternoon. Yet tomorrow morning, it's 90 degrees by 7:00. Those are conditions favorable for volatility. While these products were developed to have less volatility, volatility hasn't been eliminated, so certainly within 24 hours, we would expect volatility as a potential risk. Then beyond that 48 hours, [inaudible 00:37:07] we've done enough... I haven't really seen too many trials that have looked at how long before that risk of volatility basically reaches zero.

Blake Moore:

Basically, we're saying that definitely try not to use it this time of year. Then Chris, you had mentioned something about possibly having the 2021 registration approved, so maybe the farmers should hold on to their products, and not risk using it right now, and then wait to see what happens with the 2021 registration. Is there a time frame that you think some kind of guidance on that would come out?

Chris Wade:

I can't speak for EPA. I know there's a lot going on with the court decisions, and like I said, it's a fluid situation. It goes back and forth every day, so I can't really give a specific date of when they would say that it would be available. I know they're working on it, but I also know that the individuals doing the product registration, they're also working on a lot of other products, like a lot of disinfectants, COVID-19 products are coming down the line.

Chris Wade:

I know the individuals working in those programs are getting swamped with all that stuff. This is the EPA I'm talking about, not DDA. Just hearing from the calls I'm on, those product registration folks are super busy. A whole bunch of crazy stuff. When this court decision came down, I know it threw everybody for a loop. I can't really give a specific date and time when they would come out. I know they're working on it, and they're trying to get it out quick, because they do know that farmers have to plan for next year. And there's going to be a lot of questions once the July 31st deadline passes. Farmers have all this existing stock. If, like Mark says, they bought extra, it's going to be a big question. I know they're working on it, but I can't really give a date.

Blake Moore:

We really appreciate you guys joining us this morning, and really just want to know if you guys have any final thoughts, like some take home messages that you'd like listeners to know about.

Chris Wade:

I can go first. I would say, like we've said before earlier, read the label, follow the label. The label is the law. And then secondly on that is, communication is key when it comes to pesticide use. As an enforcement agency, we like to do compliance assistance first, and help people out. Fortunately, if instances do occur, we have to use enforcement actions. We don't like to do that at DDA. We like to do the other route first, but we do issue enforcement actions. I would say communicate with your neighbors before you use the products, and if you have a question, if someone has a sensitive crop next to where you're going to use, communicate. Talk about the weather. Talk about when they're going to plant theirs, when you're going to plant yours. And then, I know off of Dicamba, there's other key messages like pollinator protection. If you're going to do an insecticide spray in your mix, communicate with the beekeepers in your area, or the homeowners, make sure everybody's on the same page when it comes to those applications. But I would just say communication, and follow the label.

Mark VanGessel:

If I'd follow up, my message is pretty similar to Chris. Be a good neighbor. When in doubt, leave it out. Be very cautious, particularly this time of year. And think of your neighbors before you apply it.

Blake Moore:

Dan, I know you usually like to ask a question, and I forgot to do that earlier, but the off topic question, the random knowledge question for them. For Chris. Chris, do you have any special talents, or any hobbies that you like to do in your off time?

Chris Wade:

I enjoy bonsai. I have a large bonsai collection, so I'm a plant geek when it comes to bonsai plants. That's my big-

Blake Moore:

And what's your oldest one that you have?

Chris Wade:

My oldest one that's been in training? It's probably, let me think here real quick, like 23, 24 years old.

Blake Moore:

Wow. Really? And had you trained it the whole time, or did you pick it up after a while?

Chris Wade:

No, I trained it the whole time. It's a beech tree that I started when I was probably 15, 16 years old.

Blake Moore:

Awesome. I'd like to see that. That'd be pretty cool.

Mark VanGessel:

What do you do to train a beech tree? Does it like to flex its limbs, or stretch it out?

Chris Wade:

It's a lot of trimming and root pruning, and all that kind of fun stuff. It can be very frustrating when the rabbit gets ahold of them in the wintertime.

Mark VanGessel:

Oh, no.

Chris Wade:

I've lost a few to that, because if they're native species, I put them in the ground for the winter, so the pots don't break and freeze, and the roots don't freeze. And a lot of times the rabbits will get in there chew all the soft tips off, and that can be a little aggravating when you go out in the springtime, and all your stuff's chewed off.

Blake Moore:

Dan, go ahead and get a question for Mark. I know you've got something good up there in that brain.

Mark VanGessel:

Well, there was one time I went to a track and field cross country event, and I saw Dr. VanGessell there. And I'm like, what the heck is he doing here? Dr. VanGessell, how's your kids doing?

Mark VanGessel:

They're all doing well. They're all holding up under these conditions. I had one graduate from high school, and that was... With graduation, they actually were able to do it in person, which was nice. And everyone's doing well. Everyone's holding up. Thanks for asking.

Mark VanGessel:

And are you still running, as well?

Mark VanGessel:

No. Well, my running days are well behind me. I always enjoyed running. My knees don't let me do it anymore. I'll leave that to the kids.

Blake Moore:

There you go. This is awesome. This is the first time that we've had actually two guests on at the same time. You guys did very well together, almost like you guys have worked together before.

Chris Wade:

Alrighty. Well, I appreciate the invite, and be kind on the edit button. Thank you.

Blake Moore:

And Mark, like I said, over the years, thanks for teaching me pretty much everything I know about weeds. You and Todd together, man. I tell you, this been a big help to me, for sure. Really appreciate you guys joining us this morning.

Mark VanGessel:

No problem.

Katie Young:

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Chris Wade:

Hey, Blake?

Blake Moore:

Yes?

Chris Wade:

Well, your people call my people about royalties associated with this?

Blake Moore:

My people is Dan Severson, so wait for the royalties to come from him. It's going to come right out of his paycheck.

Chris Wade:

All right. All right.

PART 4 OF 4 ENDS [00:43:47]