

#### Illinois Fertilizer & Chemical Association

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August 8, 2018

On July 25, 2018 the IFCA sent a dicamba use survey to our ag retail members only, and asked them to respond by August 3, 2018. We used SurveyMonkey. We sent a similar survey last year and continue to engage with our members to assess their experiences with post application of dicamba on soybean to provide input to the registrants and other stakeholders on the management of this technology.

As of July 27, 2018 the Illinois Department of Agriculture has received 297 formal misuse complaints attributed to dicamba, the vast majority of the complaints being made by farmers regarding symptoms on non-DT soybeans. Overall, IDA has taken nearly 1,000 phone calls on this issue in 2018; most are from farmers, but there are also calls regarding symptoms on other sensitive plants. The number of official dicamba-related complaints has increased from 2017, and IFCA believes it is imperative to provide useful recommendations going forward to address the off-target issues related to dicamba use in soybean that cause concern in the farming community and to assure continued public trust in judicious pesticide use.

We received 113 responses to the survey. In many cases, the main ag retail office replied on behalf of all their branches and applicators, thus one response often reflected the experiences of dozens of branch offices and applicators. We are very pleased with the response rate to this survey.

In addition to this survey, IFCA staff has taken many calls from our members and from farmers expressing concern with the issues they were dealing with relative to the use of dicamba on soybeans, and asking IFCA for assistance and leadership on the issue.

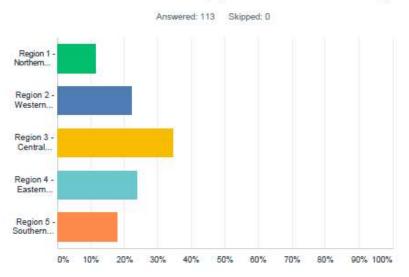
IFCA members answered the survey questions but also provided extensive written comments. The IFCA Board and staff evaluated all the comments provided by the retailers; we have included many of the comments verbatim. We selected those which we feel illustrate the most common concerns, observations and recommendations provided by the retailers who perform commercial application services.

As this survey reveals, commercial applicators are split over the use of this technology. Although differences of opinion exist, the IFCA leadership believes that measures can be taken to enable the use of the technology while also outlining reasonable steps to address the tendency of dicamba to impact nearby crops and other areas when applied post on soybean, even by the most experienced and well-trained applicators. IFCA members are very cognizant of their stewardship responsibilities—they desire to help their farmer customers protect their crops, and they also know that they must use pesticides in manner that assures public trust in our industry. Society rightfully expects the agricultural industry to successfully co-exist in increasingly diverse rural and urban communities and IFCA will work diligently to achieve this goal.

Please direct questions about this survey to Jean Payne, IFCA President, at (309) 827-2774 or <a href="mailto:jeanp@ifca.com">jeanp@ifca.com</a>. Visit our website at <a href="www.ifca.com">www.ifca.com</a> for an overview of the programs and issues managed by IFCA on behalf of our members. The 2018 IFCA dicamba management survey results follow.

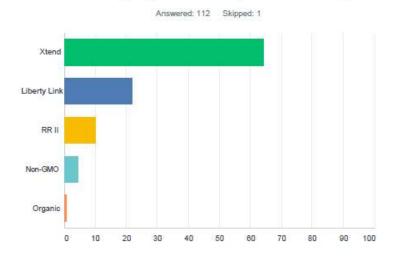


## Q1 Please select the region or regions in Illinois where you operate as retailer based on the map provided in this survey.



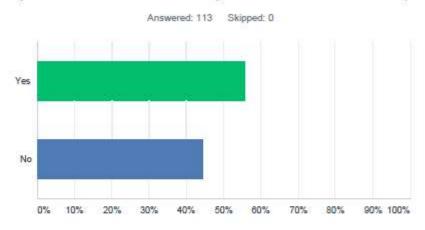
ANSWER CHOICES	RESPONSES	
Region 1 - Northern Illinois	11.50%	13
Region 2 - Western Illinois	22.12%	25
Region 3 - Central Illinois	34.51%	39
Region 4 - Eastern Illinois	23.89%	27
Region 5 - Southern Illinois	17.70%	20
Total Respondents: 113		

### Q2 Please estimate the % of each soybean trait planted in your commercial territory region in 2018 (total should equal 100%):



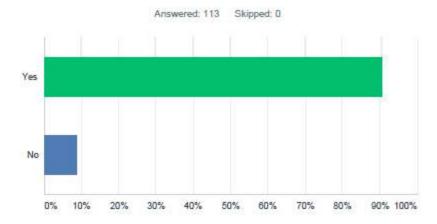
ANSWER CHOICES	AVERAGE NUMBER		TOTAL NUMBER		RESPONSES	
Xtend		64		7,199		112
Liberty Link		22		2,426		110
RR II		10		1,093		106
Non-GMO		4		434		99
Organic		1		48		55
Total Respondents: 112						

### Q3 Did you use dicamba for soybean burndown this spring?



ANSWER CHOICES	RESPONSES	
Yes	55.75%	63
No	44.25%	50
TOTAL		113

#### Q4 Did you apply dicamba post-emerge (POST) to soybeans this year?



ANSWER CHOICES	RESPONSES	
Yes	91,15%	103
No	8.85%	10
TOTAL		113

#### **Comments:**

Very good weed control.

Controlled weeds but had off target movement.

We applied when wind was right direction & temperature was below 85 degrees.

We did not apply—with no official backing from the manufacturer, we cannot put our company at risk.

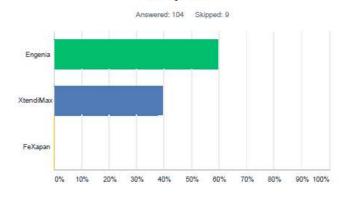
Performance was pretty good.

Much needed.

Didn't want the liability and headaches. Lost one 400-acre grower over it but everyone else stayed with us.

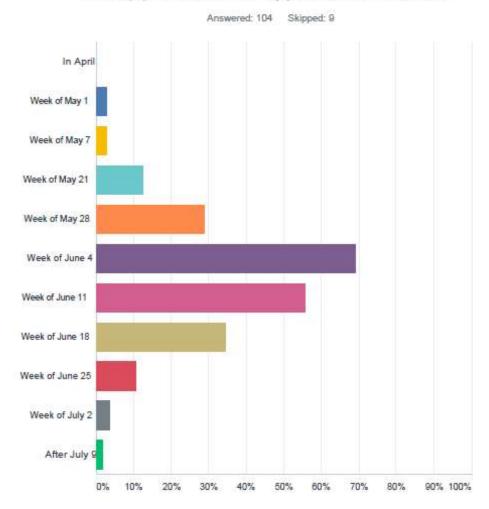
I had no issues with my rigs but customers that sprayed their own had plenty of issues.

Q5 If yes to Q4, what product did you primarily use POST insoybeans this year?



ANSWER CHOICES	RESPONSES	
Engenia	60.58%	63
XtendiMax	37.50%	39
FeXapan	1.92%	2
TOTAL		104

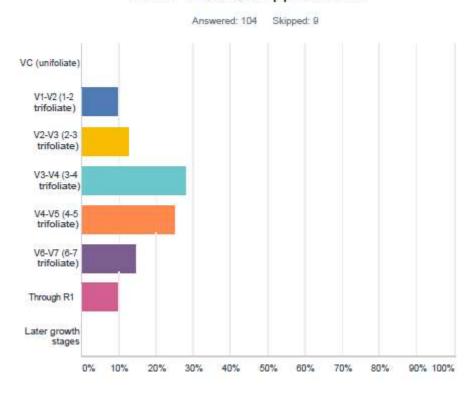
Q6 If you used these products POST in soybeans this year, select the week(s) you applied the majority of your commercially applied POST dicamba. You may select more than one week, but please focus on the week(s) when MOST applications occurred.



#### **Comments:**

Growers with Liberty or RR2 beans were more damaged by the later applications that moved over on to those fields. With so much rain, our applications in June were scattered equally through the month.

### Q7 At what growth stage were soybeans during the majority of your POST dicamba applications?

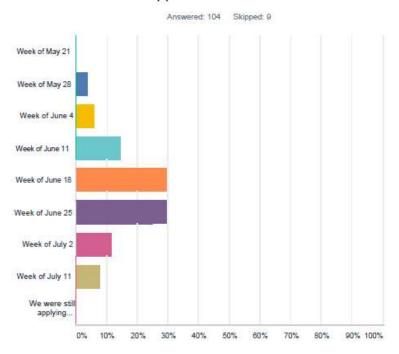


#### **Comments:**

A wet June delayed application 2 weeks.

I observed a number of early small soybeans being sprayed by neighboring dealers. But our impacted growers' fields came from the later applications from other growers and a few from commercial applicators.

### Q8 Please indicate the date that most of your commercial POST dicamba applications ended:



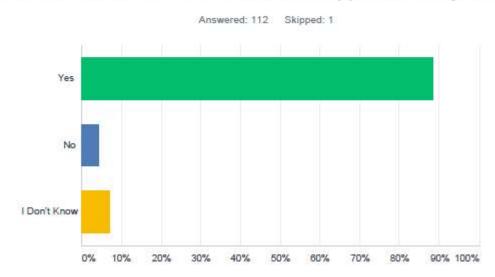
#### **Comments:**

Tried to stop at end of June.

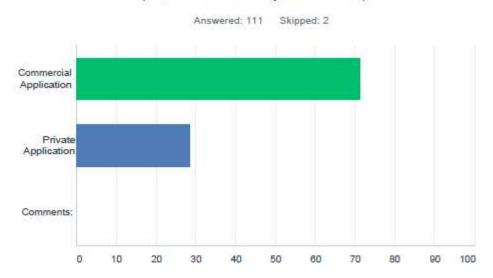
Did not spray double crop soybeans last two years.

Some resprays were late in season and still didn't kill waterhemp.

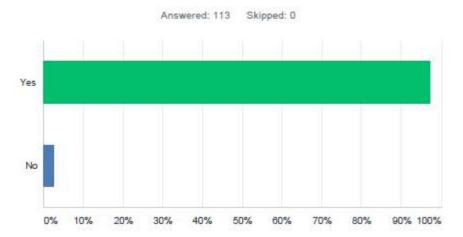
Q9 Did most private applicators (farmers) apply dicamba POST during the same time frame as most commercial applicators in yourterritory?



Q10 Considering all POST dicamba in your territory, please estimate the % of acres that were applied by commercial applicators (including your company and other retailers) vs. acres applied by private applicators (total should equal 100%).



## Q11 Did you recommend that a non-dicamba soil residual herbicide be applied to soybean before emergence?

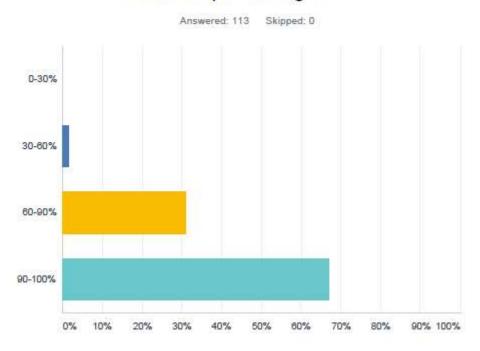


#### **Comments:**

Every acre whether it was or was not dicamba tolerant received a soil residual application to it.

Our neighboring dealerships told me growers didn't want to spray these products, so their custom acres were up.

### Q12 What % of your customers used a non-dicamba soil residual herbicide pre-emergence?

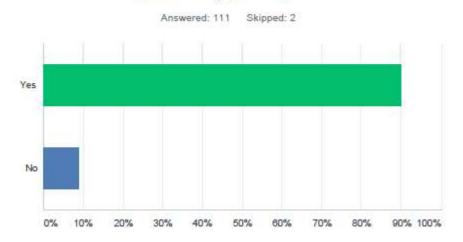


#### **Comments:**

Less weed pressure the farther north you go; 30% in some areas in the north.

Cleaner fields in general around here by doing preplant residual followed by Outlook or Dual post.

## Q13 Did you recommend a soil residual herbicide be included in POST dicamba applications?



#### **Comments:**

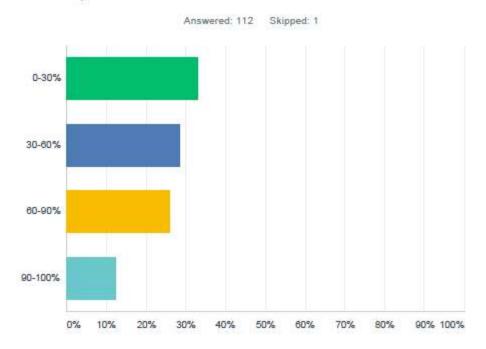
Only in fields with heavy waterhemp pressure.

Not if they had a residual applied pre-emerge.

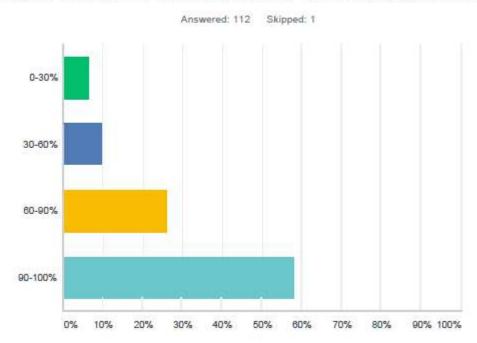
Not in all situations.

We did if the waterhemp population was high.

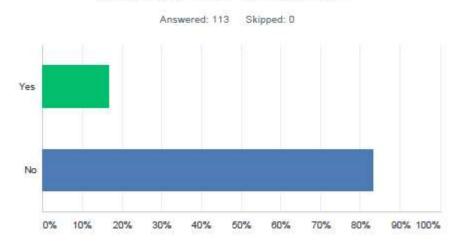
### Q14 What % of your customers used a soil residual herbicide POST?



Q15 If your customers apply their own dicamba, what % do youbelieve uses a pre-emerge or residual in their weed management plan?



## Q16 Do you believe that any applicators are using non-labeled dicamba products POST in soybean?



#### **Comments:**

Not a lot but it happens; "any" is a big word. It is not a large number and probably lower than last year.

Likely minimal. There will always be those who look only at price regardless of label restrictions.

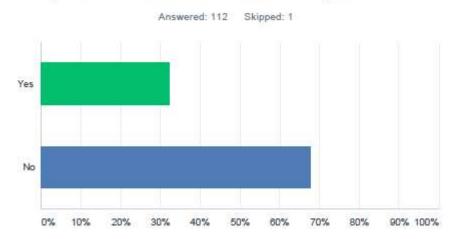
Maybe a small percentage due to lack of education or looking for cheaper options.

Witnessed it and it was a relatively small percentage.

I think a very low percentage, but believe it happened.

This particular farmer that did it buys from the tin-shed.

## Q17 Do you believe that any applicators are using non-labeled dicamba products PRE-EMERGE in soybean?

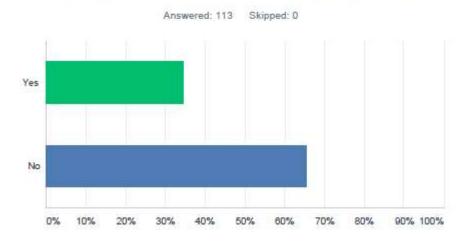


#### **Comments:**

Likely, although again minimal for the same reasons in question 16.

They see no reason to follow the label in pre-emerge as they usually wait the labeled period of the dicamba product before planting. Many though are using the theory that it is just like planting after a 2,4-D application. It can only hurt them not the neighbor.

### Q18 Did you observe or are you otherwise aware of POST dicamba occurring when soybean was at or beyond the R2 development stage?



#### **Comments:**

The R1 growth stage cutoff needs to be emphasized more in the training. It wasn't followed with the RR labels either.

Growers are not good at identifying growth stages. Farmers do not believe the later applications damage the beans because RR did not damage the beans. Weeds would have been way too tall meaning boom height is also way too high.

Need more grower education on this.

Saw some evidence of some of the larger growers doing some in early July.

Not sure how often, but they do it because they want clean fields and dicamba is their only choice.

Very little. This would be in a severe weed situation that needed resprayed, not whole fields.

Witnessed this multiple times, the growers see it as their only option to control waterhemp.

Other custom applicators waited for correct wind directions/speed and got backed into a corner forcing them to make several off-label applications.

It took that long working around the wind restriction of the label.

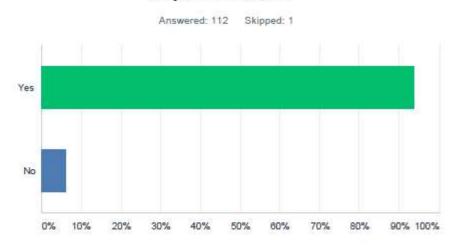
There was some spot spraying.

I've seen growers do it and discourage it every time.

No way to monitor this; all will say they were younger than R2.

Saw people spraying past the R2 stage, because they had too many acres to get sprayed in a timely fashion.

# Q19 In your experience observing fields in your territory following POST dicamba, did you observe symptoms of dicamba exposure in non-DT soybean fields?



#### **Comments:**

Only very minor cupping which they outgrew in a week to 10 days. May have been from dicamba in corn.

Cupping was almost a guarantee if there were non-DT soybeans around.

Mainly on liberty link soybeans.

It was not bad.

Small areas when non-DT soybeans are next to DT soybeans, but only on a few acres.

Saw evidence of volatility, particle drift, and actual movement with running water with a heavy rain 4 days after application.

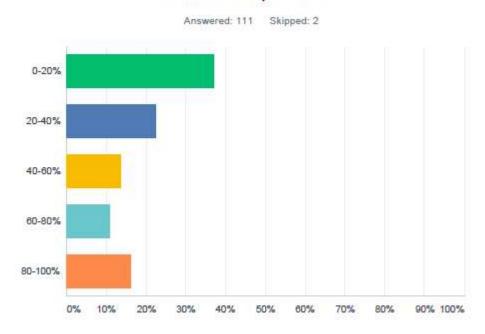
Of the approximately 9000 acres of dicamba product we sprayed this year we only received about 30 acres worth of spray drift complaints. Of those complaints, we do not believe any will result in crop loss.

This year has been totally different from last year but everyone I believe is a lot more conscious of our surroundings i.e. non-DT beans, buffers and wind direction.

95% of time if it could have been a problem, it was a problem in our territory (Central IL). It showed up anytime it was applied within 1/2 mile of a non-DT crop.

Around the week of June 18th, about 75% of the non-DT beans started showing symptoms which was uniform cupping in entire fields.

### Q20 What % of non DT soybeans in your territory had some symptoms of dicamba exposure?



#### **Comments:**

I had only one.

We had a few areas that had 60-80% of the non-DT exposed, but overall in our the area it was 20-40%.

Some fields got hit 2 & 3 times. At this time they are still cupped and not growing.

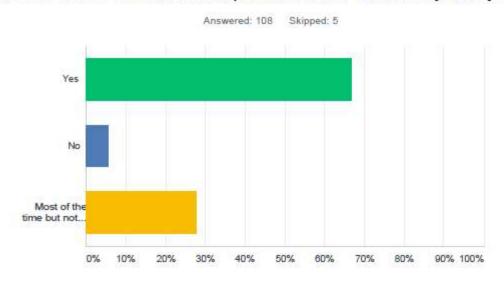
More from spraying corn than beans.

Exposure was not that bad because most ag retailers and farmers did not use dicamba. Symptoms were 95% of time when it was near a field sprayed with dicamba.

Less than 5%.

Very few fields did not show symptoms and when there were no symptoms, those fields were around 1 mile away from dicamba fields.

### Q21 As a commercial applicator, do you feel that your operatorswere able to follow the dicamba product label effectively this year?



#### **Comments:**

Conditions that allow for a technically legal application is very small---we tried to stop at June 20 but couldn't get everything covered--we ran out of time.

Weather is never right. Too windy, too hot, to humid—we can't win.

The border restrictions are ridiculous and don't really help. It travels way further than that, so why have them.

Very light, shifting winds made it impossible to "always be right" during the time when we needed to spray.

Yes, but we also tried to spray the least amount of acres possible due to the label restrictions. Only sprayed when absolutely needed.

Only because if there was a chance we would be off label, we didn't spray. There was a lot of time we couldn't spray.

The no spray was not defined well so if a field was 400 ft away and it was light wind we might of still sprayed.

Ever changing field conditions make this difficult. Wind speeds change, wind direction changes, storms arrive and dissipate, weather is constantly changing.

Light breeze changes during an application made it difficult. Started a field on label, ended off label.

Hard to follow the wind speed requirements. Also difficult for growers to leave buffer strips knowing the weed pressure to come.

I think it is very difficult to apply these products and be on label for wind and inversion chances. This season also had high temps during applications.

It was difficult. Hard to find days with complying weather, and finding out that farmers planted different products than what they told us in adjacent fields.

Worked very hard to follow label to the "T". No application unless we could follow the label. I want this product to stay around so not following the rules is not an option.

A lot of going back to the same fields more than once to finish because of wind direction.

I believe it is impossible to make an on-label application as the label is written; there is always a susceptible crop downwind since there is no distance limit.

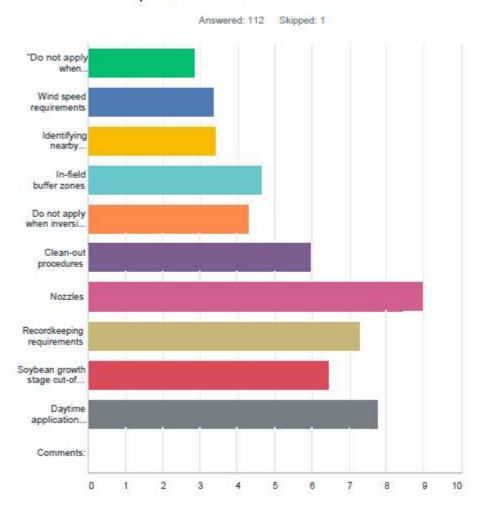
There were several instances where the wind would obviously never be in the right direction for an on label dicamba application, but applicators made them anyway.

You can be in the middle of spraying a field and the weather conditions change. It is very hard to leave mixed product on truck or sprayer.

How far is downwind to a sensitive crop considered?

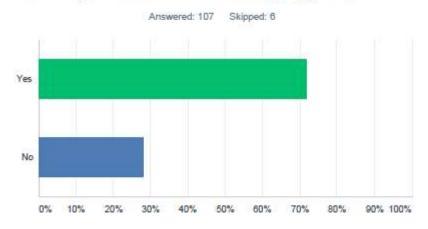
But the labels are too hard to try and justify when you can and can't spray. You go to spray class and everything is "use your best judgement." This needs to be more cut and dry and chemical companies need to accept more responsibility.

Q22 Please rank, using the number "1" as indicating the most difficult factor followed by 2,3,4 etc., the difficulty in performing applications in compliance with the label: Rank 1-10



**IFCA Note:** Since a "1" indicated the "most difficult" the smaller the bar, the most difficult. "Do not apply when sensitive crops are downwind" was ranked as the most difficult aspect of the label for applicators, followed by wind speed requirements, identifying nearby sensitive crops, inversions, in-field buffers, clean-out procedures, soybean growth cut-off stage, recordkeeping, no pre-sunrise or post-sunset applications, and nozzles being the least difficult aspect.

# Q23 After your commercial applications, did you observe symptoms in adjacent non-DT soybean fields after application when the wind was not blowing toward that field during application?



#### **Comments:**

This is the very frustrating when we were on label with the wind direction the day of application; but it was not a large percentage.

Most of the documented issues involved wind that was <u>not</u> blowing toward non-DT fields.

Nothing too serious.

Wind speed went to 0 the night after application.

Noticed this in 2017 but didn't see this in 2018.

We set boundaries for no-DT fields at 1/4 mile.

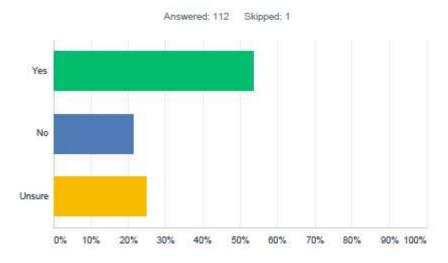
Did not spray near any non-DT crops but did witness many fields that did show symptoms when wind was blowing away.

On just a couple occurrences.

Wind direction at the time of application did not seem to have much effect on the off-target movement of dicamba; vapor drift occurred in all directions from applied fields.

Did not have any symptoms as we managed fields differently when near non-DT.

## Q24 Did you observe fields where multiple dicamba exposure events likely occurred?



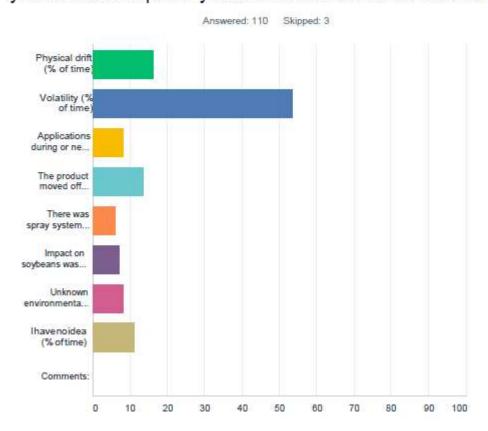
#### **Comments:**

Several where chemistry could have come from multiple fields.

Several non-DT bean acres were exposed to dicamba during post corn and then again during post bean application.

Saw fields that got hit 2 and 3 times, earlier planted beans showed the worst symptoms.

Q25 Please indicate below what you believe are the primary factors that resulted in symptoms. Answer this question by inserting the % of time you believe symptomology occurred from these factors. Select only those that you feel are the primary factors. Answers should total 100%.



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
Physical drift (% of time)	18	1,594	98
Volatility (% of time)	54	5,461	102
Applications during or near an inversion (% of time)	8	677	82
The product moved off target due to shifting winds after application (% of time)	14	1,191	87
There was spray system or tank contamination (% of time)	6	451	74
Impact on soybeans was from off target movement of a dicamba application made to corn (% of time)	7	579	82
Unknown environmental factors impacted the susceptibility of non-DT soybeans to dicamba (% of time)	8	537	66
I have no idea (% of time)	11	510	46

## Q26 Indicate the degree of symptomology that you most commonly observed in non DT soybeans by providing the % of fields that you observed with that level of symptomology.

LIGHT CUPPING OF LEAVES: 67.2% OF FIELDS

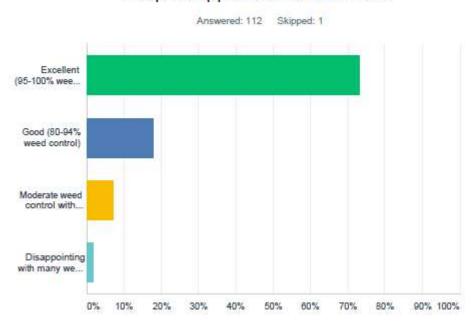
SEVERE CUPPING OF LEAVES: 28% OF FIELDS

SEVERE CUPPING WITH STUNTING OF THE SOYBEANS: 16.3% OF FIELDS

SEVERE CUPPING WITH TERMINAL BUD: 3.8% OF FIELDS

PLANT DEATH DUE TO EXPOSURE TO DICAMBA: 0.6% OF FIELDS

### Q27 Please rank the success of weed control in Xtend soybeansfollowing the post application of dicamba:



#### **Comments:**

As long as it was sprayed early. Bigger waterhemp escaped.

Dicamba does excellent job killing weeds and volatilizing long enough for the residual herbicides to activate.

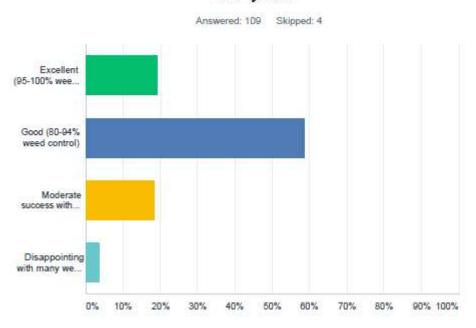
1/2 pound dicamba was not enough on waterhemp.

Chemistry is not that great at controlling weeds such as waterhemp and most are often off label in weed height.

Some weeds were larger than 5".

Chemistry doesn't finish weeds.

### Q28 Please select the success of weed control in Liberty Linksoybeans this year.



#### **Comments:**

1st application didn't completely kill the weeds and they had to be sprayed a 2nd time.

When weather was hot and dry, weed control in LL suffered.

Grass and Velvetleaf escapes.

Grower waited too long to spray = bigger weeds. However, weeds the same size were absolutely smoked with dicamba. In some instances, weeds under stress were not even affected by glufosinate; we resprayed large portions of Liberty acres after a rain.

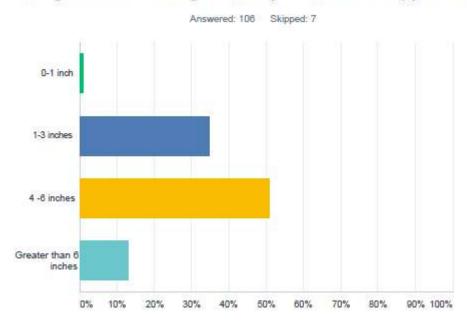
The correct weather conditions are needed for it to work, humidity and temperature play a role. We have to spray on label 4" or less weeds and we may not get the correct weather when application goes on. Liberty is a 2-pass post program, using a preplant herbicide as well. 2 years in a row now, the same experience.

Saw many LL fields that had to be resprayed or have waterhemp starting to poke through the top.

Very temperature dependent. Year after year performance continues to decline. 3 years away from it not working in the south.

Waterhemp control and escapes were due to weed height and coverage.

### Q29 On the majority of your POST dicamba applications, what was the average broadleaf height when you made the application?



#### **Comments:**

We had good intentions to get them sprayed earlier but with a couple rain events a lot of the weeds got off label. Most people were more proactive this year opposed to last year.

2-5" is more what I would call average.

## Q30 Regarding the required dicamba training prior to this season, what did you feel was the most helpful, and least helpful, aspect of the training?

#### **Comments:**

Getting applicators to be more conscious of the wind and their speed and pressure. It's been way to simple for them after years of Roundup spraying.

Most impactful was the inversion videos in the BASF training. Least helpful was not stressing the importance of following growth stage cutoffs and no mentioning use of dicamba in burn down applications. Also there was confusion around the buffers which made many disregard the compliance with the buffers.

Made you more aware that following the label was impossible for Ag Retailers.

The most helpful was creating the awareness to get us started early identifying the crops in the surrounding fields. The least helpful were the inconsistencies in what the training was telling us and what the manufacturers were telling us.

Most helpful was that the training was standardized across industry/growers/retailers. Least helpful was no direct answers to key challenges such as defining the "distance" downwind to sensitive species. Also little recognition of volatility as a potential issue.

Most helpful was getting growers aware of the situation.

There where some good points, however most custom applicators are already aware of the difficulty of application.

Buffer strip setback explanation was the most helpful. Explanation of how far downwind a susceptible needed to be before you can spray was the least helpful.

Most helpful was explaining to farmers that some fields should not be sprayed because of non-dicamba tolerant fields adjacent.

Training was not helpful at all. They pointed out the obvious for particle drift, which we all know how to control. Did not point out vapor drift control and impossibility to accurately predict an inversion. Also, the trainers were extremely vague in regards to buffer requirements when there were DT beans/corn adjacent to DT field followed by non-DT beans. Said it was up to applicators judgement. Simply protecting manufacturers and continuing to put all responsibility on applicators shoulders. They hold no accountability and even our insurance companies do not protect us if we follow the label and have an issue due to shifting winds overnight or inversions.

The training put in doubt that there ever is a time when we are "on label".

Training was not helpful. We sprayed Dicamba in 2017 and learned throughout the season what we needed to change for 2018.

As a commercial applicator who has gone to Xtend and Engenia plots and training for 4 years prior to launch, I was not impressed with training. For farmers or new applicators it was informative.

It helped us better understand the label requirements. Almost scared many people away from spraying it.

Explaining wind direction restrictions was very helpful, inversion time was vague.

The most helpful aspect had to have been the identification of what leads to dicamba drift in our fields. The least helpful aspect was the documentation of in field conditions at the time of application.

We knew ahead of in-season application exactly how it needed to be applied and farmers where trained, that was the most helpful. Least helpful was that retailers already knew a lot of the guidelines.

Truthfully what was most helpful was talking with Dr Bryan Young at IFCA convention about physical drift. From the training, the setbacks and wind direction when and when not to spray was very helpful. What bothered me about the training was I felt it was a passing of the buck by the manufacturers and that anything that goes bad from here on out is the responsibility of the applicator which it is, but we still have to make a living.

Helpful to have a buffer discussion and walk through examples.

Understanding the new restrictions was helpful. Least helpful is Indiana and Illinois are separate training.

Most helpful learning about inversions Least saying there is little too little about vapor drift.

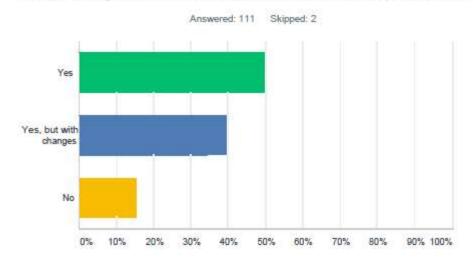
Most helpful was the burden placed on the applicators to respect this volatile product. Least helpful was the chemical manufacturers placing the burden on the applicators to take the heat off of them for their volatile product.

Most helpful was our entire company getting the same message. Least helpful was susceptible crop downwind. If you won't answer question of how far then technically you will always be off label.

Most helpful was it made me more aware of environment when spraying. Glyphosate made us lazy. Least helpful was stressing sensitive areas, most applicators are already aware of them.

Best is giving the operators some refresher. Least helpful was chemical company training because they would try to always make every point to take away any responsibility from them. They will not come out and say watch for volatilization when we all know dicamba always has and always will volatize.

### Q31 Do you believe that USEPA should renew the Engenia, Xtendimax and FeXapan labels, as is, for the 2019 crop season?



#### **Comments:**

How do you change the label any further for post? As a large company we may decide not to spray this product.

Dicamba applications should end May 31, or just allow in burndown applications.

Absolutely, we need this weapon in our toolbox and has been very safe to use in our operation.

We can not keep current formulations of dicamba where we put them, the same as the old ones. This is the same reason that I quit using dicamba in corn 15 years ago.

Set a date for no more post applications.

Preplant only or preplant with early cutoff dates. We as applicators hold all the responsibility. If they are going to sell the product, and we follow the label but there is still an issue, then the manufacturers need to have skin in the game.

Set a hard date for cut off on spraying. Do away with growth stages. Also no double crop Xtend beans should be treated.

I think it is a great product that does a great job and it is superior to the Liberty and other products.

Not saying it's right, but for in-crop applications, in order to mitigate a lot of the challenges with applying the product wouldn't it be easy to just make it where you cannot spray this product if there is a sensitive crop or area nearby despite wind direction?

Don't spray within ¼ mile of non-DT beans.

The product works good but the volatility somehow needs to be taken out of the product to be able to move forward.

What else are we going to use?

If we ever want to raise a non-DT susceptible crop in Illinois, the label needs to be pulled after April 15. Problems will only get much worse if there are no repercussions for off target movements.

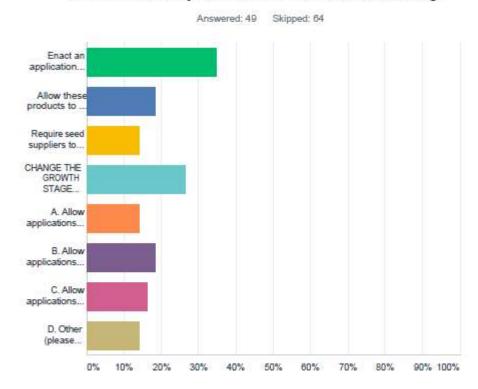
I think growth stage can be later.

I don't think it is right to spray a chemical and have no control over where it might end up at due to vapor drift.

Very successful weed control when managed properly.

Q32 If you answered "YES BUT WITH CHANGES" what do you suggest those changes be? Select one or more of the following or if your preference is not one of the choices, please specify your preference.

Check all that you feel are worth considering.



**IFCA Note:** The options were provided were:

- 1. Enact an application cut-off date; if you select this option please provide suggestions on a cut-off date.
- 2. Allow these products to be used only as a burn-down.
- 3. Require seed suppliers to obtain a grower agreement outlining the conditions for dicamba use; failure of the grower to comply would result in inability to purchase the traits in the future.
- 4. Change the growth stage for application; if they selected this answer then check one of the following:
  - a. Allow the applications only through pre-plant or pre-emerge;
  - b. Allow applications only through V3;
  - c. Allow applications only through V6;
  - d. Other (please describe)

#### Comments:

End May 31st, early post emergence or in burndown applications

Option B should encourage more use of residual herbicide tank mix with dicamba. Limiting use to pre-emergence greatly reduces the overall effectiveness of the chemistry. A cut-off date would not be effective unless growers all plant the same week of the same month year after year. A seed stewardship agreement is only as effective as the enforcement of the rules...case in point, "how well did that work with planting CRW refuge"?

June 24th

June 20th

June 15<sup>th</sup>

May 20th

June 20th

Should definitely be before July 1<sup>st</sup> for cut off date. And beans following wheat should not be allowed to have post dicamba.

June 10th

To me none of these would have effect on the last two years of problems in Southern Illinois. I would say a 1/4-mile buffer to all ultra-sensitive crops if volatilization is not addressed.

Have to stay 1/4 of a mile away from non-DT beans.

Let common sense dictate when an application should be made.

Apply up to R3.

No cut off date. Just make pre-emergence only.

Tennessee has July 15 and I'm good with that date.

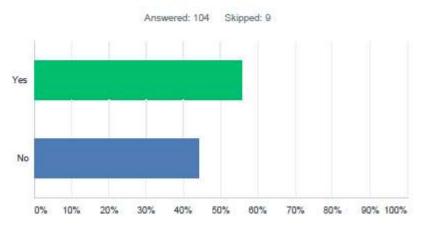
April 15. Growth stage will not work.

I think there should be a combination of relative humidity and temperature and if it is over a certain combined number there are no applications.

A cutoff date will not eliminate problems but would help.

Depends on zones and depending on when beans are usually planted.

### Q33 Should AMS not be allowed in POST applications of dicamba to corn and pastures?



#### **Comments:**

I managed those acres with the same adjuvants as I used in my Xtendimax.

If it makes dicamba volatile as they say it does how do we know that this is not the cause of all of the so-called issues.

Seriously AMS should be in the tank all times to help it kill better. When you are measuring off target movement in portions of miles, a few hundred more feet is not going to matter much. So instead of 1/4 mile of movement if it's 1500 feet at that point who's counting?

Keep it in. AMS helps reduce resistance.

AMS is not the issue.

It AMS is on the label for other dicamba products used in corn, why is it not in Xtendimax, Engenia or FeXapan?

### Q34 Where you had successful applications, what were the mainfactors you believe contributed to the success? Please describe.

#### **Comments:**

Spraying early in season paying attention to weather.

Earlier in the season post applications. Weather allowed more days to spray as far as wind goes.

Spray early! Small weeds and cooler temps for less volatilization.

Following the labeled requirements and respecting the possibility of off-target movement by going above and beyond the requirements using common-sense measures: Don't spray a field that has a sensitive crop to the north when you have nothing but a NW, N, or NE wind. E and W winds are too risky.

We only sprayed when there were no non-DT crops around.

Correct weed size, residual applied pre-emerge, correct application.

Following the labels, and using our direct injection systems.

Being very picky about where we sprayed it. If a non-DT crop was ½ mile to the north or east of field, we would not spray the field.

We took the stance that we would not apply dicamba to any field that had non-DT beans on the north or east side of them for at least 1/8 of a mile (preferably 1/4 mile). Even if the wind was out of the north we would still not spray them. We kept one sprayer for just for dicamba soybeans to eliminate our risk of contaminations.

There were no non-DT beans around.

Followed the label and extremely picky about what surrounded fields sprayed. Only sprayed 100% isolated fields.

Most all were successful. Wind and water movement were the main factors for any off-target movement. Both of which occurred after application and we shouldn't be held accountable for either.

It all starts with 100% knowledge of neighboring fields. With that, you can have success.

Overall weed height was less than previous years and the new chemistry worked very well on the weeds.

We targeted dicamba post apps early this year and weather cooperated, we were able to manage when and where we applied given our window for application, wind speed, etc.

Timing, Timing, and we had a great applicator.

Followed the label, and sprayed early in soybean V stages. We used more concentration of product to hit the weeds or the ground, so it would not be retained on the soybean leaves. If it was a questionable application, we didn't spray it.

Unprecedented light winds during this year's post season helped us.

Before going to the field, my operators knew what crops were planted on neighboring fields and what wind direction they had to be applied.

There were no Liberty, non-GMO or RR beans around where we sprayed.

Were there any successful applications near non-DT soybeans?

We made a full commitment to stewardship. The label can be a hammer against you and a shield as well. We need real discussions with our growers about this subject.

The products worked great we used the app from Monsanto a lot for the inversions.

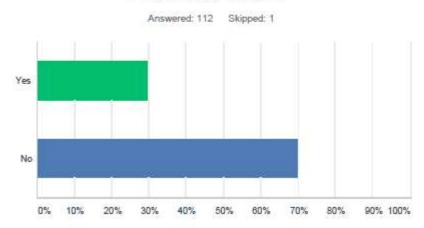
Weeds weren't overly big. Good pre's are a must.

We wait for a series of cooler and lower RH days.

Fields that were isolated on all four sides and quite a distance from gardens and ornamentals.

We did our homework and had a master map of crops planted. Everyone loves the weed control so we followed the rules to avoid losing dicamba for next year.

## Q35 Did you experience or observe any off-target movement ofdicamba impacting sensitive areas such as trees, shrubs, gardens, ornamentals, or specialty crops?



#### **Comments:**

But it was minor this year.

Have seen several oak trees with dicamba injury (cupped leaves).

Was saw a number of gardens that had cupping in them with different degrees of damage. Saw a few small trees.

Very few. No more than with other products like Gramoxone.

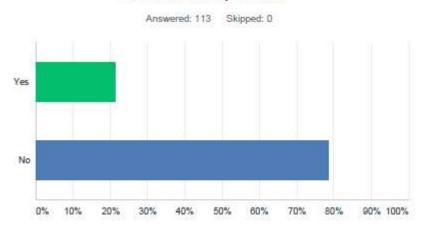
Light cupping of tree leaves. Minor damage.

Oak trees really don't like dicamba.

Damage to other plants was not as common as damage to non-DT beans, but I saw damage to all.

Cupped leaves on trees, and cupped plants in gardens.

Q36 Whether or not the dicamba products are approved going forward for POST in soybean, do you feel that growers will accept the possibility that manual removal of weeds will become a necessity to manage future weed seed development?



#### **Comments:**

There were more farmers this year walking their beans than in the past.

They should, although larger farm size will make this tough.

Roundup made them forget what walking beans was.

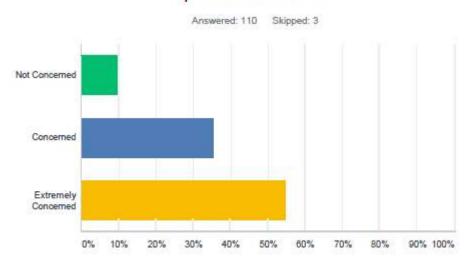
Yes and no. They will not want to accept it because it is a lot of work, but if that is the only option then that is the only option.

Only as a last resort.

But if that is the only option then we'll adjust to it.

No grower will do manual removal and they won't pay for it as well.

Q37 As a commercial applicator, select the level of your concern regarding the continued utilization of this technology in terms of the label restrictions for applicators, and subsequent findings by the Department of Agriculture against applicators, including warning or violation letters, monetary penalties, and points that accumulate on the applicator and operator's license.



#### **Comments:**

If the professional applicators cannot keep this on target, then what does the future hold? The growers want us to accept all the responsibility regardless of where they plant the Xtend beans.

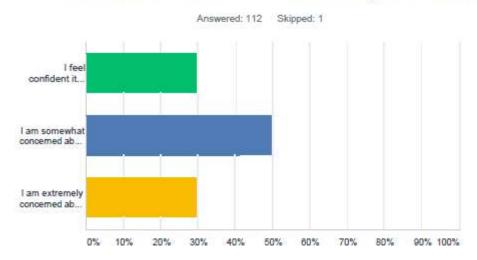
The majority of the issues are from causes out of our control and not due to improper application.

Concern lies in the complaints that are not legitimate, made by uneducated neighbors.

So far, as long as a the recordkeeping is ok, no one has been fined by the State. But affected farmers want to be compensated.

We do not feel that an applicator should be 100% liable for a product that moves when it was applied 100% according to label.

# Q38 If you look at the next 5 years, assuming dicamba remains in the POST soybean marketplace, what comfort level do you have in the ability of dicamba to continue to work effectively on weeds?



#### **Comments:**

Next five years is good, next ten years there will be problems. Marestail can be managed, but waterhemp is a problem and it is being sprayed way too big.

I think the production of the triple stack soybean will give us the option to rotate products.

We have had waterhemp that got out of hand because of long rainy spell and we did not completely get them.

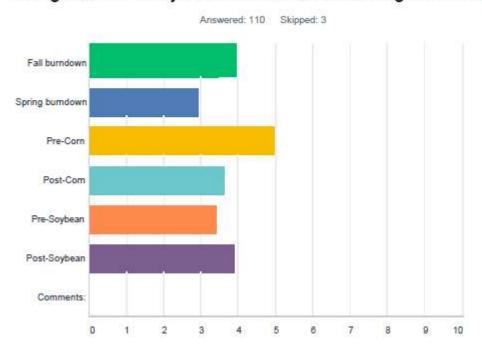
I think in 5 years there will be a lot of waterhemp will be resistant to dicamba if it is still labeled for post treatment soybeans.

I think that keeping different mode of actions out there will help keep this product around longer. With that being said I have already seen something I did not like, such as weeds trying to grow through it.

Beyond 5 years I'm concerned.

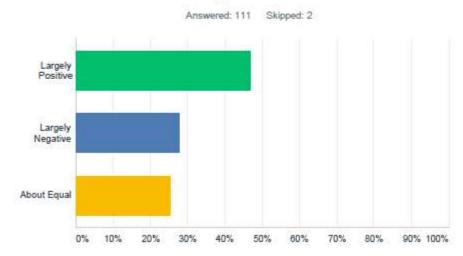
Growers are already pushing the envelope with weed heights, resistance is just a matter of time.

Q39 What use situation do you feel dicamba holds the SINGLE MOST long-term value for the industry? Please use the number "1" to rank the single most important long-term value; use 2,3,4,5,6 from there with "six" being the use that you feel holds the least long-term value.



**IFCA NOTE**: With "1" being the "most value," the smaller the bar the most value it had. So in the question, spring burndown holds the most value followed by pre-soybean, post-corn, post-soybean, fall burndown and pre-corn.

Q40 Considering all aspects of POST dicamba application (weed control, off target movement, neighbor relations) has the dicamba soybean technology largely been a positive or negative experience for your commercial application business?



#### **Comments:**

A lot of problems, but good for weed control.

It's positive for cleaning up a problem field, but from an exposure standpoint to the retailer it is completely opposite.

Cleaner fields and happier customers.

Equal, but it doesn't matter when the risks outweigh the rewards.

It's the only post product that works. A lot of the post products on the market today are only 70-80% effective.

We have a civil war going on out here. Liberty vs Extend and we are caught in the crossfire.

We need this chemistry for resistant weeds in soybeans.

At issue are the Non GMO, Liberty or organic growers.

It adds another of stress that we really don't want. It is a very emotional topic.

Listening to upset farmers for a month about drift issues not good for anyone and makes for a lot of stress.

Q41 Please provide any additional comments to assist IFCA in our endeavor to ensure sound and effective pesticide policy and pesticide use in Illinois. You may also provide your company name if you desire; it will only be shared with the IFCA leadership. Thank you for participating in this survey and for your membership in the IFCA.

#### **Comments:**

Our experience has been much better this year. We went to direct injection or dedicated rigs just to extend beans and we did not put it into our nurse equipment. These factors cut down our complaints by 80%.

This is very difficult for custom applicators but putting it in the hands of more private applicators will be even worse.

I did have a comment from more than one grower that was a little concerning to me: There are a few very large growers in our territory that cover several counties and apply their own chemicals. I have yet to talk to one of their neighbors that have said that these growers had contacted them before spraying dicamba on their fields. I personally contacted all of them before I sprayed next to their fields, but I am concerned that farmer applicators are not doing the same with their neighbors.

I think most of the application problems are caused by cowboy applicators that don't follow the rules. Not sure how you stop that. We had absolutely no problems.

We have to have it, there are little to no other options at this time. If we don't have, we won't have enough Liberty seed to go around.

Make the decision to label or not to relabel dicamba ASAP to allow for seed making decisions.

I believe that dicamba needs to continue to be a tool in post beans. There are only two good options as I write this. If we eliminate one of them Liberty will quickly become the new Roundup and be completely useless in the market place. Diversity of herbicide products is critical to us being able to produce crops.

I think one thing that would help is if everyone had to take the training (growers) even if they were not applying dicamba. There are too many misinformed people.

I strongly believe that a good preplant residual followed by a timely post spray with an overlapping residual still works. Especially when including liberty in the soybean post spray pass. I see too much reliance on the dicamba as a one/two pass chemical as everyone did in the roundup days. The chemistry efficacy on waterhemp will not last long at all. It is now very effective, but without everyone planting DT tolerant crops, it is impossible to control. Especially since there will always be non-gmo varieties, gardens, plants and so forth in our neighboring areas. I spent two weeks driving designated sprayers back and forth between two counties trying to spray fields accordingly depending on wind direction and speed and then drove past fields for three weeks praying that we did not injure any surrounding areas. I don't like it in soybeans post one bit. However, it works. In our industry, it is putting a sour taste not only surrounding farmers mouths, but in our community with all of the publicity. Once again, however, it works!

We need the technology to succeed in controlling waterhemp in soybeans, period. Nothing else works as well. We don't need it to be any more difficult to apply.

The manufacturers need to be responsible for damage to crops that were sprayed by the label.

Farmers should be required to mark their fields according to what technology they are planting, it should not be the responsibility of the retailer to know whether or not a farmer's neighbor planted dicamba tolerant soybeans.

Our company took the approach that if there was a neighboring field adjacent within 360 degrees of the dicamba field that was non-tolerant we would not spray dicamba. This was extremely effective. No known issues to date. Basically in effect this process kept us a quarter to half mile away from sensitive crops. This greatly limited the use of dicamba but we had no negative crop response.

We bent over backwards to follow the label as much as possible and still cupped non-DT beans in the area. Very frustrating! Getting information on what grower is planting what trait where is a nightmare. Our own customers we know—it's the growers we don't do business with but spray next to that is the challenge.

In 43 years of business I have never seen a more divisive product among neighbors both farm and non-farm. I'm not sure the product is worth the headache.

At this point in time we need the dicamba chemistry but no doubt we'll lose the effectiveness over time. We can make this work if we spray early post; it will not stop the movement but seems to not affect the yield of neighboring fields.

It's a product that has put Ag in a very negative spotlight and increased the stress on caring applicators.

We can control weeds without dicamba. But this product makes it more cost effective for the grower. The seed traits will still be available next year. The industry needs to continue with research and education to make sure we don't lose this valuable resource to control weeds economically.

Lengthen the period of application to whatever the manufacturers are ok with. Waterhemp is a late problem here, so dicamba would be good as a rescue type product.

It's a good product but Monsanto and BASF need to stand behind the volatility factor.

I see more value in Liberty/Round Up stacked beans than Dicamba soybeans moving forward.

Liberty is not perfect and weeds will become resistant, but dicamba will not stay in the field. Stacked traits will increase the places it can be used but won't eliminate the risk. Our area has R3 Liberty beans that have dicamba double crop beans being planted next to them. Applications need to end by May 15. Less than 25% of drift get turned in as complaints in our area.

This technology cannot continue as is if we ever wish to raise a susceptible crop or maintain healthy relationships with our residential and environmental neighbors.

We have sprayed less than 150 acres for the last two years. We have too many sensitive crops to really utilize this technology. Its place may be in spring burn down with immediate soybean planting.

One cannot possibly use dicamba products according to the labels. Therefore we will never use these products. Area 1 where we are is fraught with lawsuits and fines waiting to happen.

A pesticide when applied correctly should stay on target and on your property. Dicamba herbicide does not meet that criteria. This is a battle about property rights not a herbicide. No pesticide should be capable of moving onto another property, ever!

This a herbicide we need moving forward. While there are misapplications, blaming the issues on applicators is ignoring the problem. I would like a rep from each manufacturer to be in my shoes for a month.

Right now we only have 2 technologies that work against waterhemp in soybeans: Xtend and Liberty. Neither are a magic bullet. If we lose one it won't be too long before we lose the other. We need both. The answer of course, is stacked traits, where the soybean contains LL/RRxtend.

This is a valuable tool. We can't afford to lose it.