

Illinois Fertilizer & Chemical Association

Supply • Service • Stewardship

What Happened and What's Next?

DICAMBA



IFCA's Mission Statement: To assist and represent the crop production supply and service industry while promoting the sound stewardship and utilization of agricultural inputs

- Ag Retailers
- Fertilizer,
 Pesticide, Seed
 Manufacturers
 & Distributors
- Equipment Suppliers
- Transporters









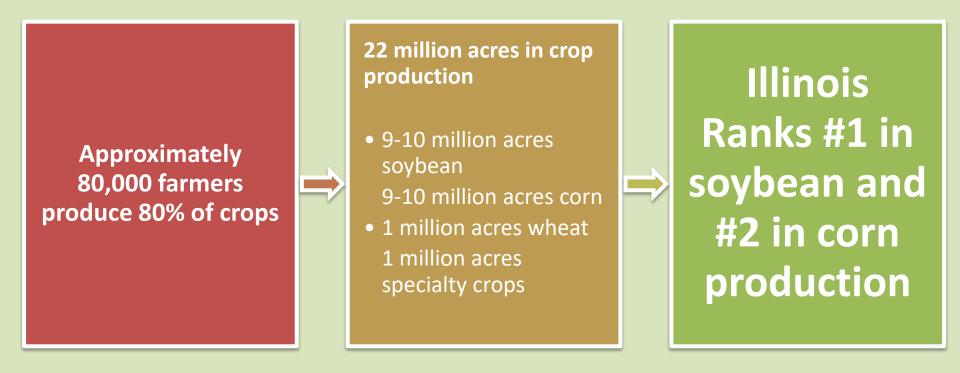








Facts About Illinois Agriculture



Illinois Demographics

- 102 Counties
- 12.8 million people
- Chicago Area:9.5 million people





PESTICIDE STEWARDSHIP



Dicamba on Soybean

The Dilemma: Record Soybean Yields.
Record Dicamba Misuse Complaints.
Growing Anxiety over this Herbicide
Technology. An Ag Industry that is Fractured.



Soybean farmers HATE pigweed

137 new herbicide active ingredients introduced from 1980 to 2009 – since then no new modes of action.

Facts to Keep in Mind

 The Anti Pesticide & Anti GMO Movement Has Grown – This hits on both pressure points

 Facebook, Twitter, Instagram did not exist when Roundup Ready was launched in 1996

 We enjoy pesticide preemption – it is a privilege not a right.

Soybeans are the MOST sensitive species to dicamba

The Illinois Pesticide Act

- The Applicator is always 100% Responsible for Off Target Movement
- IDA Will Issue Violations Even if the Affected Field Does Not Incur Yield Loss
- Violations, Even Warning Letters, Stay on Record for 3
 Years from the Date of Violation. Eventually
 applicator can have license suspended for excessive
 points accumulating on their license.





So What Happened in 2017?



IFCA 2017 Pre-Season Efforts

DICAMBA USE ON SOYBEANS IN ILLINOIS

Stewardship Do's and Don'ts



DO use only the two products that are approved in Illinois for post-emerge use on Roundup Ready 2 Xtend™ soybeans: Engenia (BASF), XtendiMax with VaporGrip Technology (Monsanto) and FeXapan with Vapor Grip Technology (DuPont).

DO NOT apply any other dicamba herbicides to Xtend soybeans. Doing so is a serious violation of the Illinois Pesticide Act (415 ILCS 60/1). Misuse will be investigated by the Illinois Department of Ag and willful violations of the Pesticide Act can be treated as a Class A Misdemeanor with fines ranging from \$5,000 to \$10,000. Misuse can also lead to civil litigation and threaten the continued availability of these products for agricultural use.

DO utilize a pre-emerge weed management program to help ensure effective early-season weed control.

DO NOT use Engenia, XtendiMax or FeXapan as a rescue treatment. They are **NOT** meant to be the only herbicide used to control weeds in soybeans.

DO NOT tank mix Engenia, XtendiMax or FeXapan with any other products such as ammonium sulfate, UAN, adjuvants or other herbicides without first consulting the product websites to determine if or when a tank mix is approved for these products. Go to www.engeniatankmix.com, www.stendimaxapplicationrequirements.com and www.fexapanapplicationrequirements.dupont.com.

DO thoroughly read and follow ALL label directions for these products including weed height, wind speed restrictions, spray nozzle selection and boom height, required buffer zones, product use restrictions and scouting for sensitive crops.

KNOW WHEN NOT TO APPLY these products to protect non-target, sensitive crops.

DO consult FieldWatch™ (www.fieldwatch.com) and access their program DriftWatch™ to assist in identifying the location of sensitive specialty crops in your area such as vineyards, nurseries and vegetable crops. Take special precautions to ensure the fields being treated are RR 2 Xtend soybeans and avoid all contact with non-Xtend soybeans.

DO NOT VIOLATE THE PESTICIDE LABEL. Talk to your crop adviser and ag retailer about viable options for weed control in soybeans. The continued availability of this new post-emerge technology depends upon everyone making good management decisions and complying with the pesticide label.

The University of Illinois Pest Management Bulletin is an additional resource that discusses the responsible management of the Xtend soybean trait: http://bulletin.ipm.illinois.edu/?p=3545

For questions regarding the proper use of these products or the Illinois Pesticide Act, please contact:

Jean Payne, Illinois Fertilizer & Chemical Association: 309.827.2774 or jeanp@ifca.com

Dr. Aaron Hager, University of Illinois Dept of Crop Sciences: 217.333.9646 or hager@illinois.edu

Brad Beaver, Illinois Department of Agriculture: 217.785.2427 or brad.beaver@illinois.gov

 Had Meeting with IL Dept of Ag in December 2016 to Consider RUP designation

 Developed and ran the "Do and Don't" poster in all major ag publications

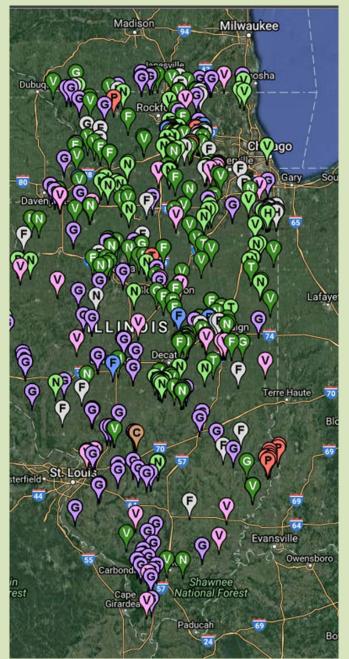
 Had Education Sessions @ Winter 2017 Convention to learn about Missouri and Arkansas Experience:

Dr. Jason Norsworthy, AR

Dr. Kevin Bradley, MO

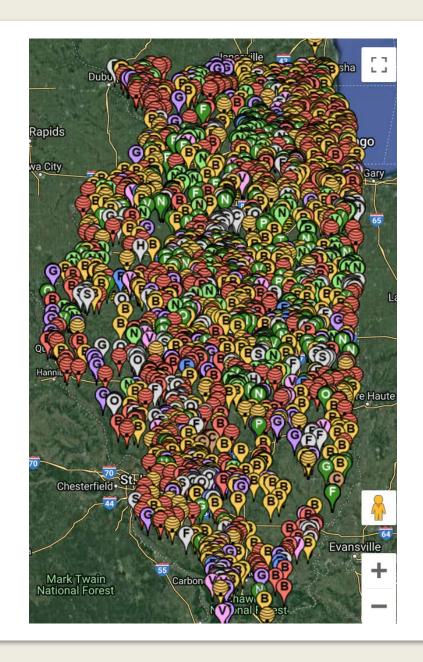


Use FIELDWATCH.COM to Check for Specialty Crops





We Met With Vineyard Association and Heavily Promoted Fieldwatch





We Distributed 500+ Red Flags

- Focused on
 Organic and non
 GMO Soybean
 Growers
- Worked through the IFCA retailers to get flags to the growers; grower groups were not interested in the flags
- Prepared postcard with instructions for use



SENSITIVE AREAS



SENSITIVE AREAS



Varied State approaches – 2017 crop year

Missouri

- Requiring an online notice of application form to be completed by users daily before each application is made;
- Restricting application to between 7:30 am and 5:30 pm; and
- Use cut-off date for applications by county
 - ■Southeast MO June 1st cut-off date
 - ■Balance of the state July 15th cut-off date

Tennessee

- Restricting application to between 7:30 am and 5:30 pm; and
- Requiring the use of hooded sprayers from July 15th through October 1st



Varied State approaches 2017 (con't)

Indiana

- Expanding the list of products classified as RUPs all products with 6.5% dicamba or more classified as state RUPs; and
- Requiring specialized dicamba training to be delivered only by Indiana Extension or state-approved trainers and no reciprocity with surrounding states

North Dakota

- ■Use cut-off date of June 30th or first bloom, whichever is first;
- No applications allowed if actual field air temperature or UWS forecast is >85 degrees F;
- Restricting applications to the time period between 1-hr after sunrise to 1-hr before sunset;
- Application ground speed restricted to 12 mph or less; and
- Application nozzle limitation of 80 degrees or less.



Varied State approaches 2017 (con't)

Minnesota

- Use cut-off date of June 20th; and
- No applications allowed if the actual field air temperature or the UWS forecast is >85 degrees F.

Arkansas

State Plant Board banned the use of dicambacontaining products between April 16th and October 31st.

Illinois

Following the Federal Label Provisions



2017 Outcome

- IDA had 246 formal dicamba misuse complaints;
- Retailers faced with handling their own issues plus farmer applied issues
- July 10 first call from a legislator
- The product performed well in many instances
- Registrants went back to the drawing board on the label





Scant oversight, corporate secrecy preceded U.S. weed killer crisis

reuters.com

Media/News

Monsanto Downplays Dicamba Damage in Illinois

August 2nd, 2017

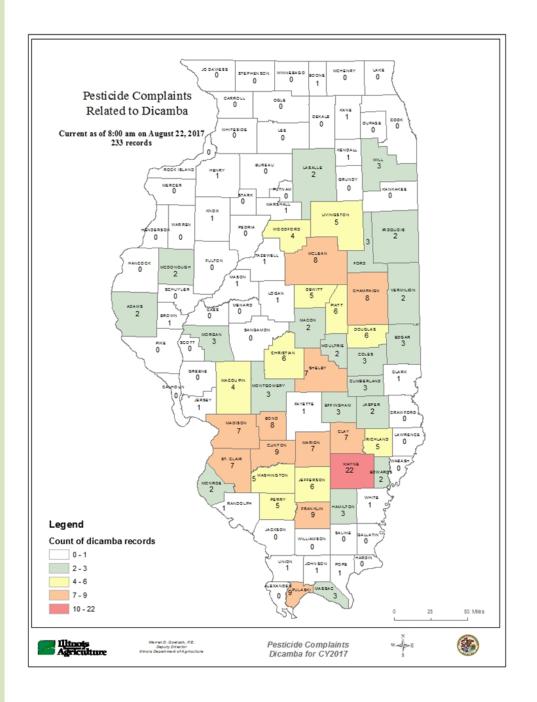
Cornucopia's Take: Cornucopia recommends listening to Brownfield's interview with well-known University of Illinois Extension weed scientist Aaron Hager. He is "both frustrated and disappointed" with industry denial of the serious crop damage problems with dicamba use.

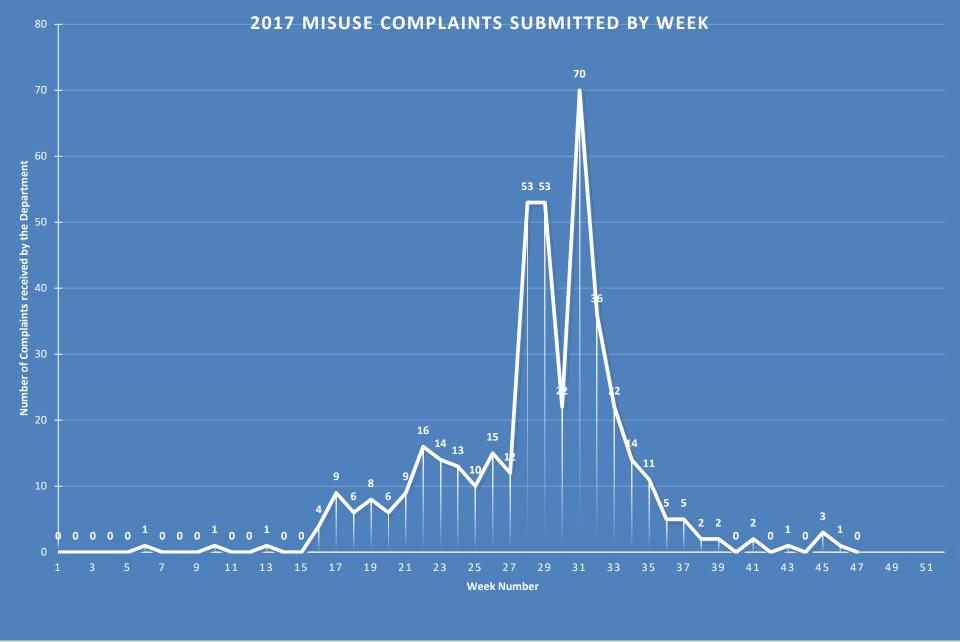


A Blame Game in the Media.....Not Helpful!

Formal Misuse Complaints by County

2017





In 2017, complaints peaked the week of July 31



Post navigation

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The Dicamba Dilemma in Illinois: Facts and Speculations

Posted on July 18, 2017 by Aaron Hager

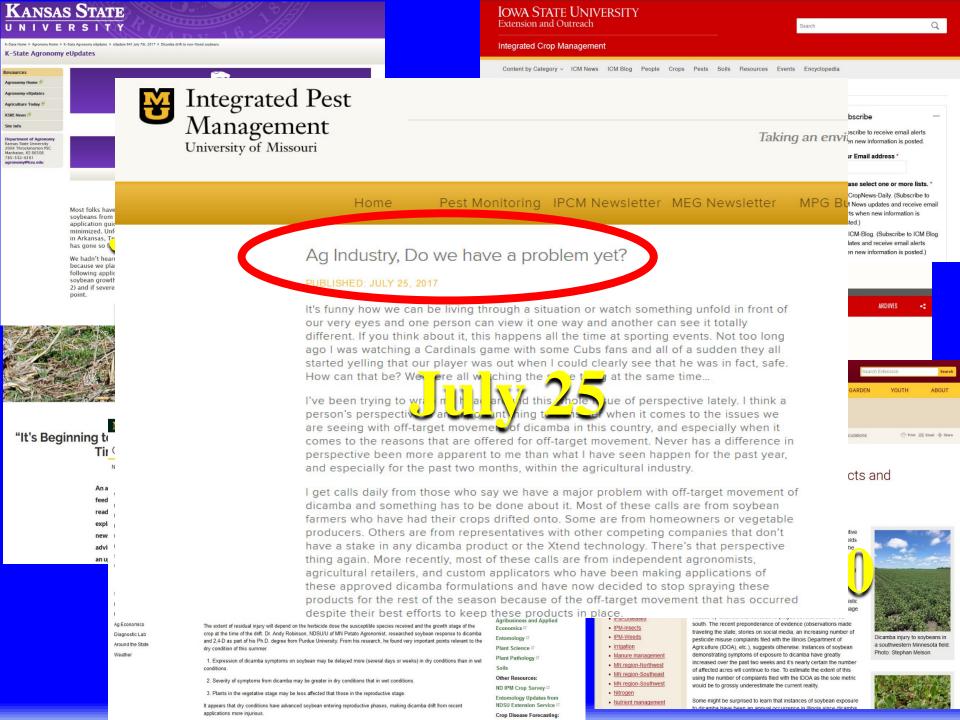
Only a short time ago, many agricultural professionals were optimistic Illinois would somehow be "spared" the incidents of off-target damage caused by dicamba that continue to plague several states to our south. The recent preponderance of evidence (observations made traveling the state, stories on social media, an increasing number of pesticide misuse complaints filed with the Illinois Department of Agriculture (IDOA), etc.), suggests otherwise. Instances of soybean demonstrating symptoms of exposure to dicamba have greatly increased over the past two weeks and it's nearly certain the number of affected acres will continue to rise. To estimate the extent of this using the number of complaints filed with the IDOA as the sole metric would be to grossly underestimate the current reality.

Some might be surprised to learn that instances of soybean exposure to dicamba have been an annual occurrence in Illinois since dicamba was first commercialized almost 50 years ago. One of the first experiments that described soybean's sensitivity to dicamba was conducted by Dr. Loyd Wax at the University of Illinois in 1966–1967¹. The stated objective of the experiments "...was to determine the response of soybeans to soil and foliar applications of dicamba, picloram, and 2,4-D to assess the potential hazard of using these herbicides in crops in rotation with soybean and in areas adjacent to soybean fields." The symptoms of soybean exposure to dicamba described by these researchers 50 years ago are nearly identical to those currently being observed.

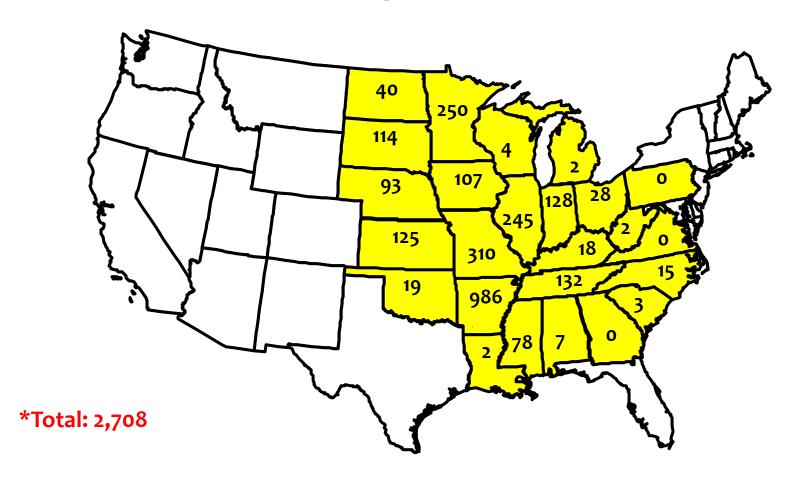
The widespread adoption of glyphosate-resistant corn hybrids in Illinois during the first decade of the 21st century was accompanied by a decrease in dicamba use in corn, resulting in relatively few complaints of soybean exposure during the last 10 years. With more dicamba currently being applied, it's not surprising the instances of soybean exposure have increased. Whether applied in corn or dicamba-resistant soybean, the fact remains that few dicot species in the Illinois landscape are more sensitive to dicamba than soybean.

Symptoms of exposure:

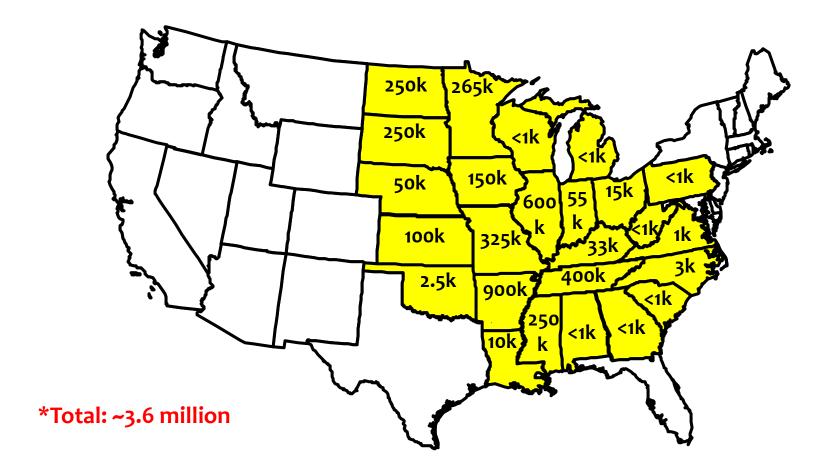
There appears to be some confusion about symptoms of exposure to dicamba compared with leaf symptoms caused by non-dicamba factors. Dr. Wax and his colleagues described the effects of dicamba on soybean leaves as "...cupped and crinkled," which are terms still commonly used today. Other factors can cause leaf



Official Dicamba-related Injury Investigations as Reported by State Departments of Agriculture (*as of October 15, 2017)



Estimates of Dicamba-injured Soybean Acreage in the U.S. as Reported by State Extension Weed Scientists (*as of October 15, 2017)



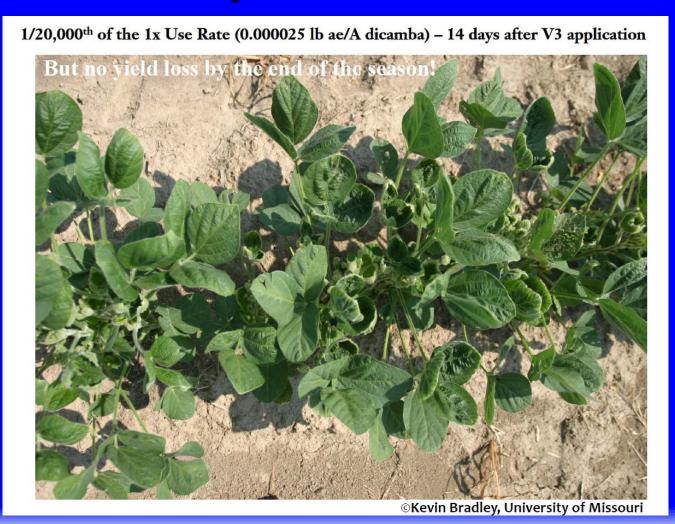
To predict what the future might hold, one should understand the past

Dr. Aaron Hager with contributions from his friend and confidant, Mr. GreyGooseandTonic

What did we learn about soybean and dicamba in 2017 that hasn't been known for 50 years?

Soybean and dicamba

• Widely known for > 50 years that soybean is one of the most sensitive dicot species



Proceedings

Nineteenth Illinois Custom Spray Operators Training School
1967

-6-

ATRAZINE-OIL AND OTHER POSTEMERGENCE TREATMENTS FOR CORN

-7-

Banvel-D

This material is similar to 2,4-D in that it controls broadleaf weeds and has little effect on grasses when used as a postemergence treatment. It is cleared for a maximum rate of one-fourth pound of active ingredient per acre. The material is outstanding in controlling annual smartweeds and wild buckwheat but does not differ greatly from 2,4-D in its effect on most other annuals. Combinations of Banvel-D and 2,4-D have been slightly superior to either materials alone for controlling weeds in corn, and particularly when smartweed has been present.

Unfortunately, Banvel-D produces more severe reactions in soybeans than 2,4-D does, and drift and possible volatility may therefore create a serious threat. We would not suggest the use of this material as a postemergence treatment in corn until a suitable drift control method can be included.

^{8.} In areas of the Corn Belt where rainfall is common in the spring this areas of the Corn Belt, where spring rainfall is more variable, it appears to be superior to preemergence, and an added advantage is less potential soil residue.

^{9.} We would suggest trial use of this treatment to compare it with your standard preemergence treatment on corn. In heavy giant foxtail areas, it appears that we will still have to put major reliance in good preemergence grass killers.



AGRONOMY FACTS

October, 1971

W - 35

Effect of Dicamba on Soybeans

When dicamba (trade name, Banvel) is used to control weeds in corn fields, some of this material may move to nearby soybean fields and cause very noticeable effects on the plants. This question is often raised: What will the effect be on the soybeans, particularly on the yield?

This fact sheet is based primarily on research conducted during 1966 and 1967 by Dr. L.M. Wax, Mr. L.A. Knuth, and Dr. F.W. Slife, as well as on observations in the field and on many plants sent in for diagnosis.

Dicamba is 3,6-dichloro-o-anisic acid, and is usually formulated as a dimethylamine salt. It is commercially available in liquid form, with four pounds of active ingredient per gallon. Dicamba, like 2,4-D, may be classified as a translocated herbicide that affects the physiology, growth, and appearance of broadleaf plants, primarily. However, dicamba and 2,4-D are different chemically.

These two herbicides also differ in two other respects. Dicamba gives better control than 2,4-D of smartweed. However, dicamba presents a much greater hazard to nearby soybeans and other sensitive plants than 2,4-D. For that reason, the use of dicamba in Illinois has been discouraged, even though it has been cleared by the federal government and made available commercially.

US Environmental Protection Agency and Illinois Department of Agriculture

- US EPA: Registration Expiration
 - "Specifically, this registration automatically expires on November 9, 2018, unless the EPA determines before that date that off-site incidents are not occurring at unacceptable frequencies or levels."
- IDOA dicamba-related complaints
 - dicamba-related complaints in 2016 = <5
 - dicamba-related complaints in 2017 = 246
 - % increase in dicamba-related complaints = 4800%







2017 Registrants' Responses

- Environmental factors responsible for leaf cupping
 - strange how these factors didn't impact dicamba varieties?
- Only a negligible number of acres affected
 - how many "negligible" acres are registrants willing to impact to meet sales goals in 2018?
- Volatility-related symptoms from older formulations
 - amazing that some can differentiate symptoms by formulation
 - still waiting to see the data to prove older formulations used
- Thoroughly investigate and make science-based decisions
 - registrant science appears to be unique

Registrants' Responses

- Ammonium sulfate causes similar leaf symptoms
 - why hasn't this been extremely common since RR soybean varieties were introduced in 1996?

University of Illinois Results



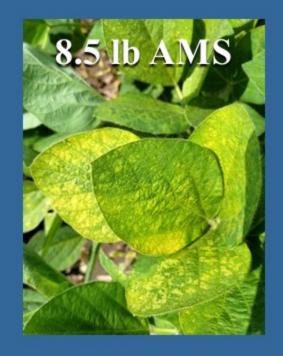


How could this have happened?

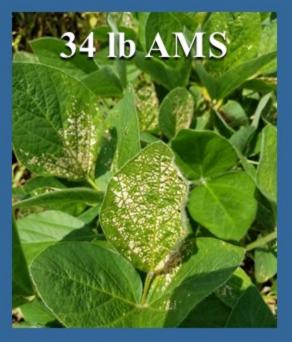


University of Illinois Results

- Cupping from some strange environmental factor?
 - RR and LL varieties cupped, dicamba variety did not
- Volatility-related symptoms from older formulations
 - nope, we sprayed Xtendimax
- Only a negligible number of plants affected
 - only if you consider every RR and LL plant negligible!
- Wind speed/direction, inversion, tank cleanout, etc.
 - RR and LL varieties were never in the spray chamber













0.0025 lb dicamba

The new changes to the label will be about as effective in reducing off-target damage next year as re-arranging the deck chairs was in helping the Titanic avoid the iceberg.

Avenues of Exposure

Physical spray drift during the application

Spray equipment contamination

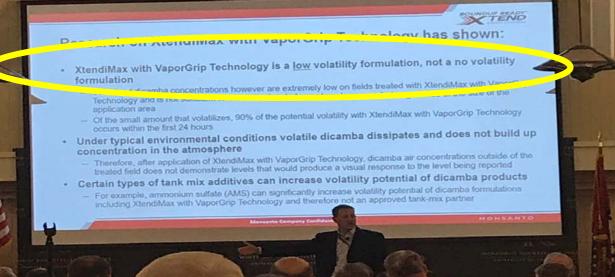
• Spray particle/vapor movement via temperature inversions

Vapor movement via volatility

What about volatility?

• Herbicide volatility is the result of movement after application when the herbicide converts to a gas and moves from the application site. Volatility can occur when spray solution settles on-site and then changes to a vapor and moves off-site. Herbicide vapor can be carried off-site by wind. (source: Dow AgroSciences)





Scott Kay (BASF): "Based on our field invetigations, we don't believe volatilization is an issue with Engenia."
(Corn & Soybean Digest November, 2017)

My Industry Response, Summer 2017



IDA 2017 INVESTIGATIONS

- IDA ISSUED MORE THAN 200 VIOLATIONS LETTERS, MOST ARE WARNING LETTERS WITH NO MONETARY PENALTY.
- OF THE VIOLATION LETTERS ISSUED, 65% WENT TO PRIVATE APPLICATORS (FARMERS) AND 35% WENT TO COMMERCIAL APPLICATORS
- WIND SPEED AND DIRECTION (SUSCEPTIBLE CROP)
 WAS THE PREDOMINANT VIOLATION CITED
- IDA FOUND NO VIOLATIONS IN TERMS OF USE OF OFF-LABEL DICAMBA PRODUCTS ON SOYBEAN

2017 IFCA Ag Retail Dicamba Survey



WE ASKED 28 QUESTIONS
OF OUR MEMBERS
ABOUT THEIR
EXPERIENCE

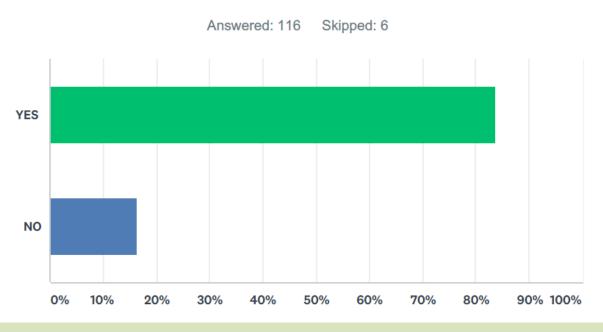


WE INFORMED
MONSANTO, BASF,
DUPONT, IL DEPT OF AG
AND USEPA THAT WE
WERE CONDUCTING A
SURVEY AND WOULD
SHARE RESULTS



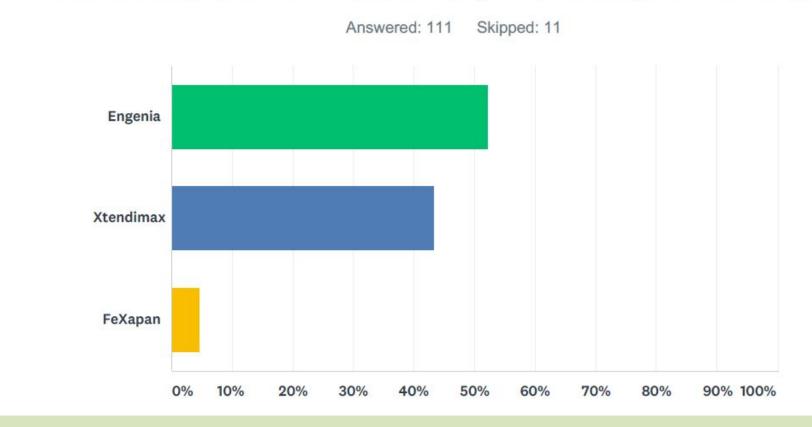
WE SHARED OUR
SURVEY WITH OTHER
STATE ASSOCIATIONS
TO USE IF THEY
WANTED, AND SHARED
IT WITH USEPA

Q1 If you applied dicamba to soybeans, did you experience any instances of symptoms in adjacent sensitive soybean fields? If NO, please provide the approximate number of soybean acres you treated with dicamba. Then proceed to question #26 to provide information on your experience with the product.



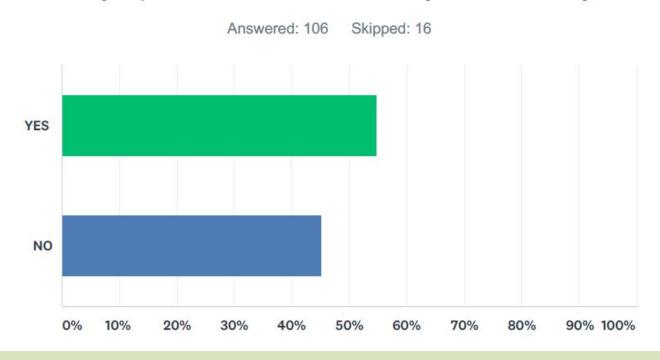
The retailers applied anywhere from 100 acres to 25,000 acres, it was very mixed. The majority fell in the 350 to 3,500 acres applied category.

Q2 What formulation of dicamba did you primarily use on soybeans?



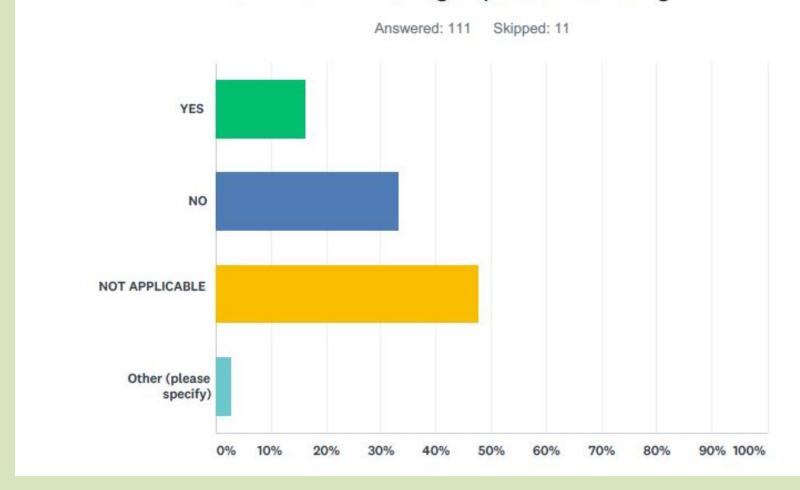
Comments: Retailers felt the performance of the products were similar in terms of effective weed control and in terms of issues with symptomology in sensitive soybeans. Several retailers commented they used all three, and observed movement of the product in all three.

Q3 In your experience evaluating fields following the application of dicamba on soybeans, did the date of application appear to have an impact on symptoms shown in nearby non DT soybeans?



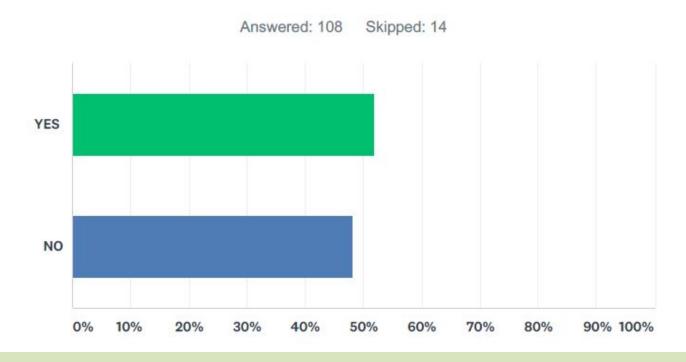
Comments: Many stated they had no issues with use of dicamba as a burn down product. Several stated that for earlier application on beans planted in April, they had no issues. Many acres were treated toward the end of June and that is when problems started, 7-10 days later. Beans started showing symptoms in late June and it increased from that point forward. Many retailers stated they applied the majority of acres in the 3rd week of June, as they felt the weather (wind speeds) finally enabled what they felt was a condition conducive to safe application. But then they observed symptoms about two weeks later. Majority of commenters stated that heat and humidity correlated with symptoms and complaints, but some commented they had problems no matter what date they applied the product.

Q5 Did you apply, or were you requested to apply, dicamba on double crop soybeans in Southern Illinois even when nearby non DT soybeans were in or nearing reproductive stage?



Comments: Retailers from southern Illinois cited significant symptoms of damage in the far southern counties of Illinois. Some commented they were asked to treat double crop soybeans but refused to do so based on the already problematic issues they were encountering with symptoms on sensitive soybeans.

Q6 For in crop applications, do you feel the air temperature during the time of application affected the performance of the product relative to impact on non DT soybeans?



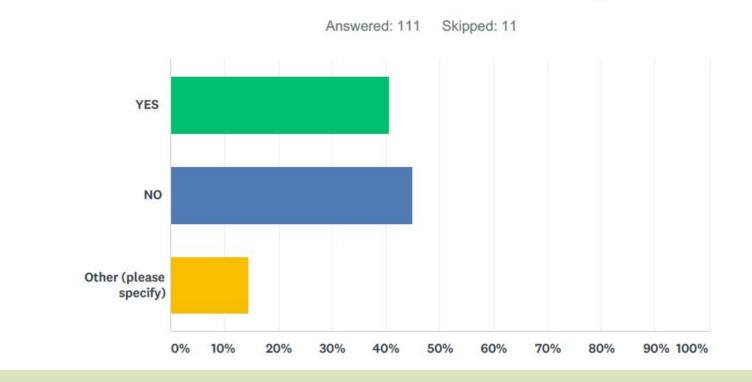
Comments: Retailers were split on the temperature at the time of the application, but many commented that higher temps in weeks following they felt attributed to problems in nearby sensitive soybeans.

Q7 If you answered YES, at what air temperature during the season do you feel is the maximum air temperature to mitigate off target impact on nearby non DT soybeans?

Answered: 68 Skipped: 54

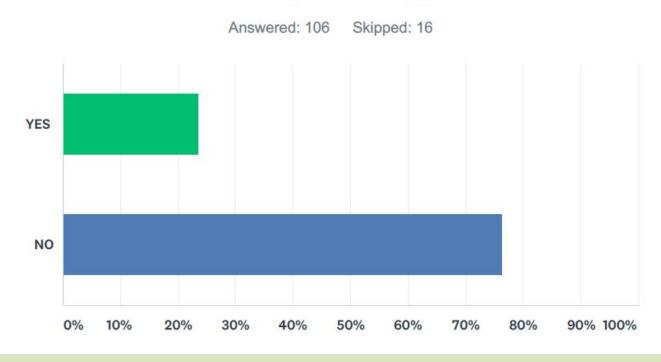
Comments: The majority of those responding suggested that between 80-85 degrees should be a cutoff temperature for a safe application. Many noted that temps above 90 degrees days to weeks following application were very problematic. More than a few suggested 80 degrees during the application and in the days following was the temperature at which they observed the fewest problems.

Q8 Do you believe that early morning applications made to avoid potential windy conditions later in the day attributed to possible inversion movement of the herbicide that caused off target movement?



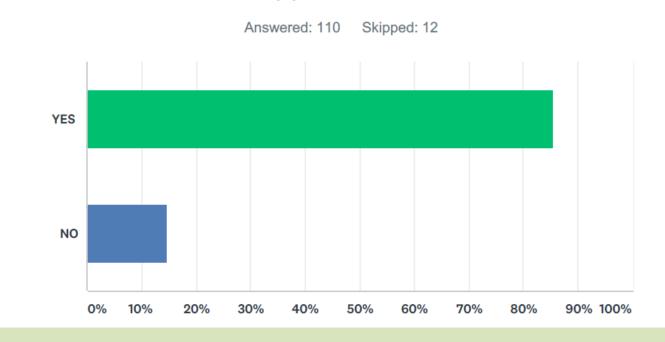
Comments: Many commented that early morning applications did not occur because winds were less than 3 mph so it would be off label. Some commented that waiting later in the day to avoid inversions made it very difficult to comply with the wind speed restrictions especially in central Illinois where 3-10 or 3-15 mph days are hard to come by.

Q9 Do you believe that night time applications were occurring either by commercial or private applicators?



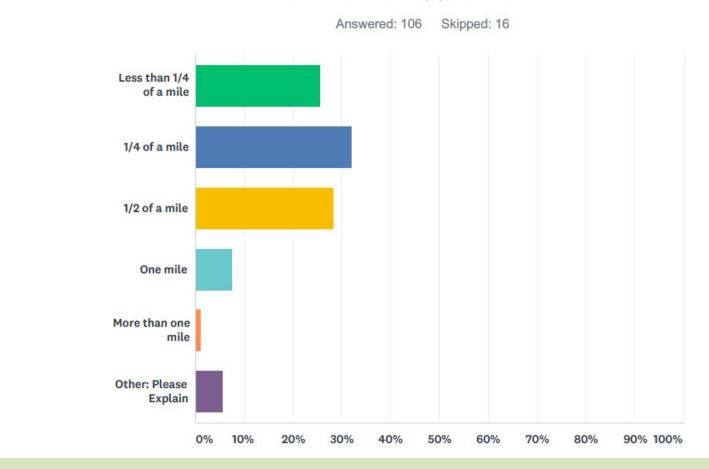
Comments: A few commented they witnessed some farmers and a few retailers applying after 5 pm but before dark. The majority said they were not aware of night time spraying occurring.

Q10 Did you see symptoms in adjacent fields of non DT soybeans even when the wind was not blowing toward that field during the time of application?



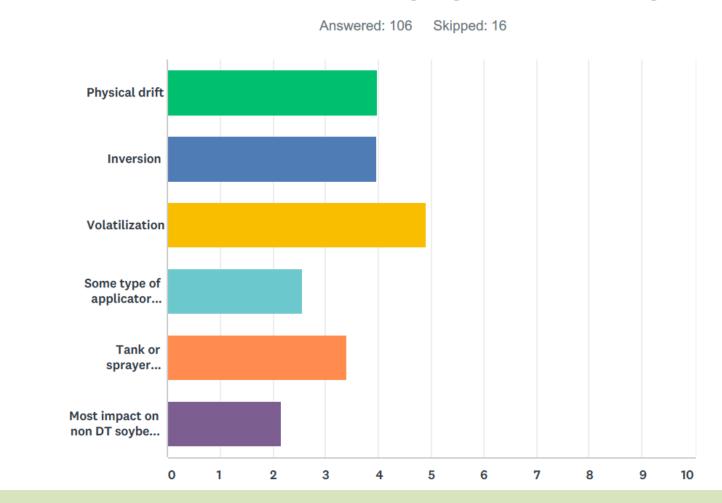
Comments: Retailers provided extensive comments on this question. They stated that many of their problems occurred in non DT soybean fields that were in the opposite direction of the Xtend fields at the time they made the applications. They cited volatility and vapor drift as their main suspicions for the damages since they were especially careful to choose days to apply when winds were in the opposite direction of the sensitive soybeans. They expressed strongly they had followed the label and put their best applicators on the job and observed symptoms when winds shifted towards the sensitive fields days later, and especially in hot conditions. They also wondered if an inversion event days later caused the product to move from the applied field.

Q11 If you saw symptoms in non DT soybeans, even when the product was applied in accordance with rate, pressure, boom height, wind speed and buffer requirements, at what distance do you note the symptoms from the field of application?

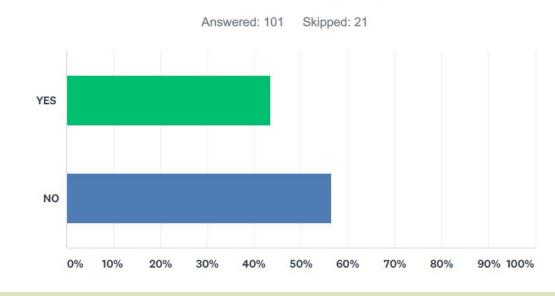


Comments: As the chart indicates from ¼ to ½ mile was nearly 60% of the responses we received, with less than ¼ mile getting 25% response.

Q14 If you saw symptoms in non DT soybeans, please rank the factors that you believe were the primary cause of symptoms based upon your experience as an applicator. Click on the arrow next to each factor and rank these factors with #1 being highest, to #6 being lowest.

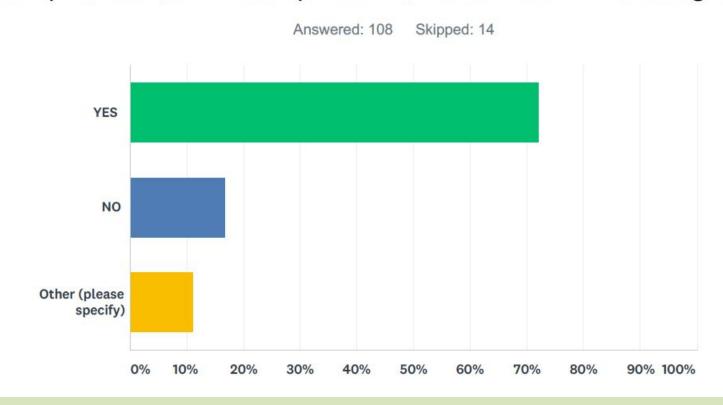


Q15 In the previous questions, if you cited tank contamination as a possible cause, do you feel that tank cleanout, using generally accepted tank clean out practices in our industry, is effective in removing dicamba from the closed system?



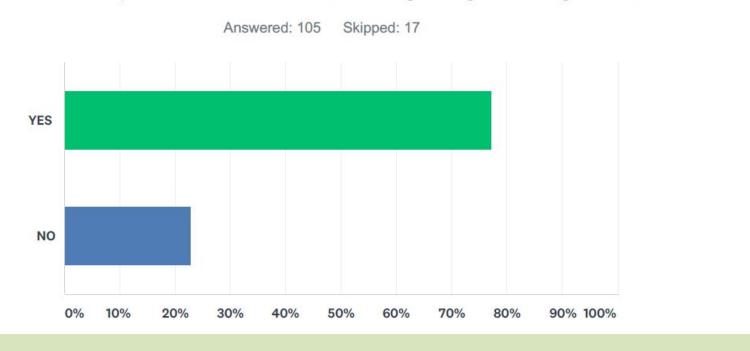
Comments: Over 50% commented that standard cleanout methods that have been effective in the past do not work well with removing dicamba from the system. Some retailers said that injection systems on the sprayer helped, but mixing hot loads at the agrichemical facility for farmer applicators was an issue as the chemical plant, as they felt later that they could not clean their mixing/loading equipment adequately to remove all traces of dicamba and thus even these minute amounts caused symptoms in subsequent applications to non DT beans. They also wondered if a build up of clay based products such as atrazine caused the "holding" of dicamba in parts of the sprayer system, which simple flushing of the system will not easily address. Many questioned whether drift reduction agents attributed to the volatility of the dicamba. While many noted that injection units on the sprayers can help, they expressed concern about tying up one machine just for dicamba from a return on investment standpoint.

Q17 Do you believe that the nozzles required on the label were effective in the performance of the product in terms of weed management?



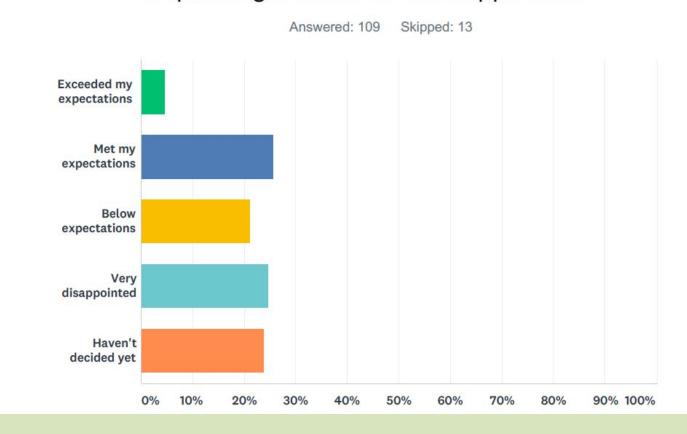
Comments: Many mentioned using the higher side of the PSI on the label seemed to help, and also using 20 GPA. They commented there were some escapes on small broad leaves, grasses and volunteer corn.

Q18 Do you believe the nozzles required on the label were effective in the performance of the product in terms of mitigating off target movement?



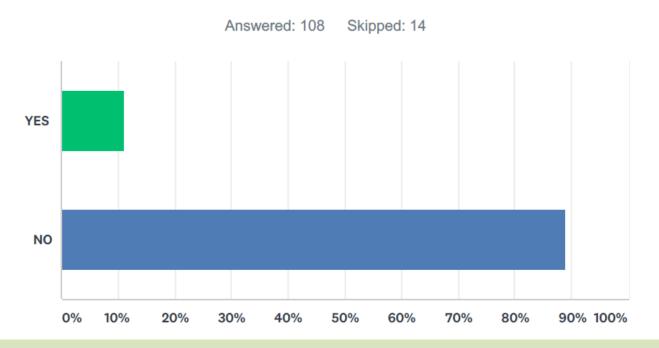
Comments: Many stated they had no problems with physical drift and a few even indicated that using these nozzles would likely improve dicamba control when used in corn. But they felt the nozzles did nothing to combat the volatility issues because volatility is not a particle that can be mitigated by a nozzle.

Q19 How would you rate the technical support you received from the product manufacturers in 2017 when using this new technology or requesting assistance after application?



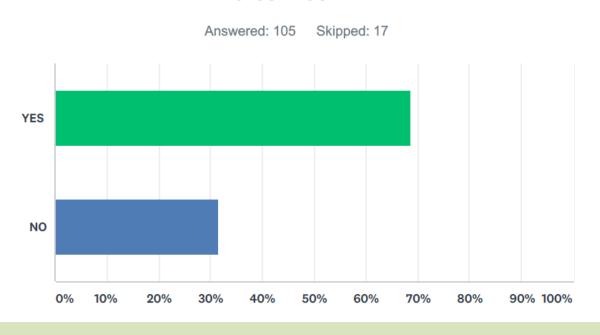
Comments: The retailers felt very much as they were on the front line for handling complaints; when a situation was controversial between farmer neighbors they felt the manufacturers were even more reluctant to get involved. They were disappointed the product reps could not even discuss what the retailers and farmers felt were obvious volatility issues. Some commented that their reps did the best job they could, but that the industry itself has not done enough work to thoroughly understand how to use this product effectively. More than a few comments mentioned their BASF rep was much more responsive than the other company reps.

Q20 Do you believe that the application of non-labeled dicamba formulations to soybeans was a major contributor in Illinois of injury to non DT soybeans?



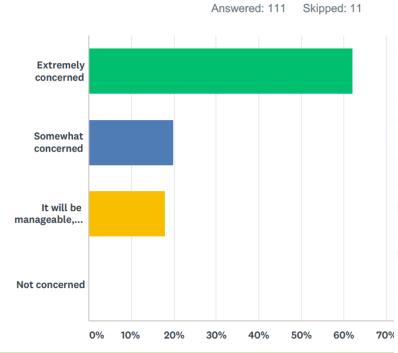
Comments: Retailers were adamant in their comments that they, and the farmers they sold product directly to, all used the new products on soybeans. A few suspected "tin sheds" and "brokers" of possible off label sales. Some mentioned again the dicamba issues from products applied to corn as having an early impact on some soybeans.

Q21 Did your company take any voluntary actions beyond the label restrictions to manage the circumstances under which you would apply dicamba?



Comments: The most common comment was retailers stated they applied a cut off date for applications (most said they quit the last week of June and did not apply anytime in July) and turned down business after those dates. Several said they applied a buffer even when it was not indicated on the label during an upwind application toward a sensitive crop or doubled the buffer to a sensitive crop. Many stated they refused to apply if an orchard, vineyard or nursery was within one mile, or refused to spray at all in areas highly populated with homeowners. Some required their customers to identify all fields surrounding their Xtend field before the spray order would be considered. A few flagged sensitive fields. Many dedicated sprayers to dicamba or used injection units. A few who completed the survey stated they did not apply the product at all, just sold the seed.

Q22 Rate the level of concern you have regarding the future use of these products as the % of acres of DT soybeans increases, regarding their potential impact on sensitive crops other than soybeans (i.e. orchards, vegetable crops, gardens, trees, etc.)

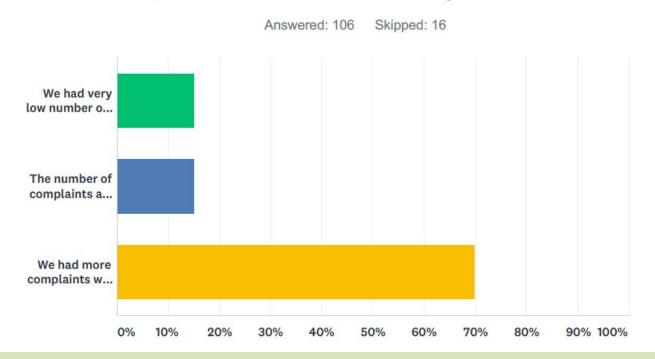


Comments: Many comments said they could improve upon drift and contamination occurrences but the volatility issues are beyond their control as an applicator. Many expressed that if the volatility issue is not addressed, that increased soybean acres being treated with dicamba will result in more homeowner and specialty crop damages. They stated that even with more Xtend acres next year, there will still be a lot of non-GMO, organic and Liberty Link fields that must be protected. If more farmers plant Liberty beans, there will be an even bigger problem. Some were anxious to see how yields would be impacted in fields with symptoms.

Many commented that the weed control was impressive, but there are so few optimum days to spray that they can't see how they are going to cover more acres given the narrow window of "perfect days" and even then the volatility afterwards is an issue. Many said there will simply not be enough optimum days to get the job done, but the farmers will still expect it to get done, putting intense pressure on commercial applicators.

Several stated they are very concerned about political repercussions if damage migrates to homeowners, vineyards and orchards if more acres are applied next year without addressing the problems that occurred this year. They feel in areas of the state where there are a lot of specialty crops and more populated areas, the liability to apply these products is simply too great for the applicator.

Q23 As of Aug 1, the IL Dept of Ag has received 143 formal complaints regarding dicamba use on soybeans. How did your experience with complaints, insurance claims or issues with dicamba use on soybeans compare to your general experience as a commercial applicator with other pesticide use issues in a given season?



Comments: Retailers stated they did an incredible amount of hand holding with farmers, even on fields they did not commercially apply. It took up most of their summer. Many said the it most complaints they have handled by far, in their entire career. Many stated that they saw more issues with famer applied fields. Several stated there were very serious issues between farmers and in communities; most farmers did not call the IDA.

Several stated they have a few problems of their own, but a multitude of problems with farmer applied fields. Most were hoping the yields would not be impacted and claims would not be followed through on with insurance companies. Some stated that increased Xtend acres may help mitigate issues between farmers but there will still be issues with non-GMO, Liberty Link and other non-DT soybeans.

7565	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Complaints Received	93	117	115	92	103	97	94	117	131	131	129	430
# of ag-related complaints	60	61	73	66	67	64	64	80	92	105	92	362
# of dicamba- related complaints		-1	1	-1	-1-	-1-	-1-	-1-	-1		-1-	246
Cases Closed (no misuse determined)	49	65	68	57	62	51	52	72	64	47	54	79
Warning Letters Issued	23	42	32	34	36	42	40	35	63	48	61	138
Notice of Fine												10
Administrative Hearings	9	25	19	8	6	10	4	18	13	12	11	0
\$2,500 penalty	1	0	1	0	0	0	0	1	0	0	0	0
\$1,000 penalty	2	3	0	0	0	0	0	1	1	1	0	2
\$750 penalty	1	4	6	1	2	3	1	8	2	1	4	4
\$500 penalty	4	19	12	6	3	4	1	6	8	9	8	4
\$250 penalty	0	0	0	0	1	3	2	2	2	3	1	0
\$200 penalty	0	0	1	0	0	0	0	0	0	0	0	0
\$100 penalty	1	1	1	1	0	0	0	0	0	0	0	0



2017 Retailer Suggestions on Needs

- Manufacturers need to share in the responsibility when all other label conditions are followed. The weed control is good if volatility can be addressed. More research should be required to improve the product.
- This is good tool but additional expense with specialized equipment and insurance costs make it cost-prohibitive for most custom applicators. However, more farmer application of the product will cause bigger problems.
- No use 21 days after soybean are planted. More study on temperature and humidity in actual field conditions.
 Define a setback to sensitive crops.



Dicam 2018 Label Changes for Applicators

13, 2017, USEPA issued revised tabels for the three dicamba products that are labeled for use on engineere Restricted Huse Pesticide Nonsanto) and FeXapan Issued Restricted Huse Pesticide November 18 ILLE RESTRICTED HUSE PROFILE TO THE RESTRICT OF THE PROFILE TO THE RESTRICT OF THE PROFILE TO THE PROFILE

de Addedar Recordkeeping ides, which means that only certified (private applicators and commercial applicators) can purchase these products and a record of sale

Mandatory Dicamba

els for the realing prime that all applicators of the product must be trained on the proper use ducts; this includes prival and commercial applicators and operators. You must make and keep a application, and proof of training must accompany the record of application.

agriculture industry is working together to offer classroom training opportunities for private (farmers), commercial applicators and operators to ensure all applicators have the opportunity to roducts properly in 2018, in accordance with the new label requirements. There are significant

Upcoming Classes

December 2017

- 5 Dicamba Training Carterville, IL ② 3:00pm - 5:00pm
- 8 Dicamba Training Champaign, IL © 3:00pm - 5:00pm
- 12 Dicamba Training Girard, IL ③ 3:00pm - 5:00pm
- 12 Dicamba Training Hamel, IL © 10:00am - 12:00pm
 - Dicamba Training Utica, IL

IFCA Organized the Training



Illinois Dicamba Use on Soybeans: Training for Applicators

On October 13, 2017, USEPA issued revised labels for the three dicamba products that are labeled for use on genetically engineered crops, including soybeans: Engenia (BASF), XtendiMax (Monsanto) and FeXapan (DuPont). IT IS ILLEGAL TO USE ANY OTHER DICAMBA PRODUCTS ON SOYBEANS.

USEPA made Engenia, XtendilMax and FeXapan Restricted Use Pesticides, which means that only certified applicators (private applicators and commercial applicators) can purchase these products and a record of sale must be kept by pesticide dealers who sell the products.

The new labels for these products require that all applicators of the product must be trained on the proper use of these products; this includes private and commercial applicators and operators. You must make and keep a record of the application, and proof of training must accompany the record of application.

The Illinois agriculture industry is working together to offer classroom training opportunities for private applicators (farmers), commercial applicators and operators to ensure all applicators have the opportunity to use these products properly in 2018, in accordance with the new label requirements. There are significant changes in the product labels that must be followed and the training will provide detailed explanations and examples of proper dicamba use. At this point, only classroom training is being offered to fulfill the training requirement in order to ensure thorough understanding of the labels and provide interaction with the instructors.

This website provides a list of dates and locations where the training will be offered, free of charge to certified applicators and operators, and to anyone who is interested in learning more about the use dicamba

Upcoming Classes

January 2018

3 Dicamba Training - Galesburg, IL © 3:00pm - 5:00pm

C Edit event

4 Dicamba Training - Peoria, IL © 4:30pm - 6:00pm

C Edit event

Dicamba Training - Peoria, IL

O 4:30pm - 6:00pm

C Edit event

Dicamba Training - Rock Falls, IL

© 3:00pm - 5:00pm

10

IFCA Managed all the Venues & Secured Registrant Instructors for Classroom Only Training

ILLINOIS DICAMBA TRAINING VENUES									
Date	Type of Meeting	Location		Current # Room Size Co		Cost	Instructor	On-Site Contact	Attendance
	1			2/12/2018					
Monday, November 27, 2017	Private Applicator Clinic	Crown Plaza, 300 S Dirksen Parkway, Springfield IL	3-5 pm		400	\$805.20	JaredRoskamp (BASF)	Alison Rhode	131
Wednesday, November 29, 2017	Commercial Applicator Clinic	Crown Plaza, 300 S Dirksen Parkway, Springfield IL	4:15-6pm		400	\$805.20	KurtMaertens (BASF)	Alison Rhode	54
Tuesday, December 5, 2017	Private Applicator Clinic	John A Logan College, 700 Logan College Road, Carterville IL	3-5 pm		150	\$0	S. Paul (MON)	Barry Hancock	130
Thursday, December 7, 2017	CCA Conference	Crown Plaza, 300 S Dirksen Parkway, Springfield IL	3-5 pm		250	^	GarySchmitz (BASF)	Lisa Martin	100
Friday, December 8, 2017	Private Applicator Clinic	I-Hotel, 1900 S First Street, Champaign IL	3-5 pm		300	\$0	Jack Marshall (BASF)	Kelsey 217.819.5003	200
Tuesday, December 12, 2017	CHS Shipman	Hamel Community Building, 10 Park Avenue, Hamel IL	10:00 AM		75	\$0	BASF (CHS got speaker)	Erin Williams	103
Tuesday, December 12, 2017	CHS Shipman	Mclintocks Steak House, 24722 N Standard City Rd, Girard IL	3-5 pm		100	\$0	BASF (CHS got speaker)	Erin Williams	115
Wednesday, December 13, 2017	CHS Shipman	DJ's Grill, 117 W. Prairie Street, Jerseyville IL	11:30 am-2		150	\$0	BASF (CHS got speaker)	Erin Williams	87
Wednesday, December 13, 2017	Private Applicator Clinic	Celebrations 150, 740 E US Route 6, Utica IL	3-5 pm		250	pay for mic	Cody Evans (MON)	Pat 815.667.5002	149
Thursday, December 14, 2017	Commercial Applicator Clinic	Timber Creek Inn, 3300 Drew Ave, Sandwich IL	4:30-6 pm		150	\$250	Chris Kamienski (MON)	Cher 630.273.6000	52
Tuesday, December 19, 2017	Commercial Applicator Clinic	I-Hotel, 1900 S First Street, Champaign IL	4-6 pm		300	pay for mic	Jack Marshall (BASF)	Kelsey 217.819.5003	148
Wednesday, January 3, 2018	Private Applicator Clinic	Lake Storey Pavilion, 1572 Machen Dr, Galesburg, IL	3-5 pm		180	\$0	Cody Evans (MON)	Chelsey Moberg 309.345.3685	165
Thursday, January 4, 2018	Commercial Applicator Clinic	Peoria Civic Center, 201 SW Jeffererson, Peoria IL	4:30-6:00		300	\$415	Chris Kallal (MON)	Josh Wright 309.673.8900	114
Friday, January 5, 2018	Commercial Applicator Clinic	Peoria Civic Center, 201 SW Jeffererson, Peoria IL	4:30-6:00		300	\$415	Jared Roskamp (BASF)	Josh Wright 309.673.8900	53
Friday, January 05, 2018	CPS	Crop Production Services, Chrisman, IL		Private			Gery Welker (BASF)		not open to public
Wednesday, January 10, 2018	Private Applicator Clinic	Days Inn, 2105 First Avenue, Rock Falls IL	3-5 pm		200	\$300	Devin Hammer (MON)	Roxanne 815.626.5500	191
Wednesday, January 10, 2018	Helena Chemical Company	The Little Nugget, 6 South Henning Road, Danville IL	9:00 AM		60	\$0	Dave Shenaut (MON)	Darin Cline 217.213.9726	74
Friday, January 12, 2018	S&S Farm Chemicals	S&S Farm Chemicals, Streator, IL		Private			Dr. Vince Davis (BASF)		15
Monday, January 15, 2018	Gilman Fertilizer	Gilman Fertilizer, Gilman, IL		Private			Gery Welker (BASF)		not open to public
Tuesday, January 16, 2018	IFCA Conventon	Peoria Civic Center, Room 400 (CCA Session)	3:15-4:45 pm		400	۸	Roskamp/Davis (BASF)	Jean Payne 309.826.3236	178
Wednesday, January 17, 2018	IFCA Convention	Peoria Civic Center, Room 402 (Pesticide Testing)	3:30-5:00 pm		100	۸	Chris Kallal (MON)	Jean Payne 309.826.3236	45
Thursday, January 18, 2018	IFCA Convention	Peoria Civic Center, Room 400 (lunch included)	12:30-2:00		400	۸	Roskamp/Davis (BASF)	Jean Payne 309.826.3236	31
Wednesday, January 17, 2018	Bockhorn Ag	American Legion, 303 S. Chester St., Steelville, IL	5:00 - 7:00		400	\$250	Jeremy Lake (MON)	evin (Bockhorn) 618.443.3905	145
Wednesday, January 17, 2018	Ag Supply	Ag Supply, Sibley, IL		Private			Gery Welker (BASF)		not open to public
Thursday, January 18, 2018	Helena Chemical Company	3559 E CR 1000 N, Mattoon, IL 61938	8:30 - 10:30		100	\$0	Jack Marshall (BASF)	mantha Harper 217-273-3260	65
Thursday, January 18, 2018	Southern FS	Shawnee College (Atrium L), 8364 Shawnee College Road, U	8:30 - 10:30		120	\$0	Jeremy Lake (MON)	Monty Webb 618.525.8927	54
Friday, January 19, 2018	Ed Viko's	Ed Viko's/Dekalb Seed Dealer, Gardner, IL		Private			Dr. Vince Davis (BASF)		45
Friday, January 19, 2018	Henry County FB	Henry County FB Building, 128 N Prospect Street, Cambridge	9-11 am		60	\$0	Lance Tarochione (MON)	Katie Laleman 309.937.2411	57
Monday, January 22, 2018	Southern FS	Harrisburg T & C Lions Club, 1400 S Main Street #A, Harrisbur	1:30 - 3:30		150	\$0	Jeremy Lake (MON)	Monty Webb 618.525.8927	69
Tuesday, January 23, 2018	John Deere Hosting	Martin & Sullivan John Deere, 1910 Knox Road 560 E, Galesb	9-11 am		75	\$0	Lance Tarochione (MON)	Todd Taylor 309-349-4796	77
Tuesday, January 23, 2018	Heritage FS	Ford Iroquois Farm Bureau, 1381 S. Crescent Street, Gilman I	8-10 am		140	\$0	Erika Parker (MON)	Sarah Moritz 815-641-8243	121
Tuesday, January 23, 2018	Heritage FS	Kruse Center, 207 N. Lawrence Street, Gibson City IL	1:30-3:00 pm		400	\$0	Erika Parker (MON)	Sarah Moritz 815-641-8243	165
Tuesday, January 23, 2018	Sunrise FS	Grandpa's, 117 W Main St., Havana, IL		Private			(BASF)	Jim Meinhart 217-663-1026	67
Wednesday, January 24, 2018	Van Horn	St John UCC Fellowship Hall, 302 N Avenue, Minier IL	1:00-3:00 pm		100	\$0	Doug Butler (MON)	John Salzman 309.392.2011	78
Wednesday, January 24, 2018	UI Crop Mgmt Conference	Doubletree Hotel, 222 Potomac Blvd, Mt Vernon, IL	4-5:30 pm		150	۸	Seth Logan (MON)	ennis Bowman 217-244-0851	50
Wednesday, January 24, 2018	Top Ag	511 S. Hanover St., Okawville IL	2-4 pm		150	\$0	Jack Marshall (BASF)	Joe Rowell 618.304.2022	162
Wednesday, January 24, 2018	Tri County FS	DJ's Grill, 117 W. Prairie Street, Jerseyville IL		Private			Jared Roskamp (BASF)		not open to public
Wednesday, January 24, 2018	Wagner's Seed & Supply	Wagner's Seed & Supply, Jerseyville, IL		Private			Jared Roskamp (BASF)		not open to public
Thursday, January 25, 2018	Younquist Ag	Youngquist Ag, 1330 190th Ave, Monmouth, IL	1-3 pm		150	\$0	Dave Roome (DOW)	Bruce Pecenka 309-371-6705	23
Thursday, January 25, 2018	The Equity	Lake Shelbyville Visitor Center, 1989 State HWY 16, Shelbyvil	3:30-5:00 pm		50	\$0	Jack Marshall (BASF)	Holly Bauman 217-825-4861	167
Friday, January 26, 2018	Private Applicator Clinic	Chateau Hotel, 1621 Jumer Drive, Bloomington IL	3-5 pm		280	\$0	Jack Marshall (BASF)	Brittany House 309-665-5630	260
Friday, January 26, 2018	GrainCo FS-Growmark	GrainCo FS, 11230 N IL RT 47, Morris, IL	10-11:30 am	Private	40		Erika Parker (MON)	Bill Weber 815-712-2323	28
				Private		\$0	. ,	,	



2017-2018 Dicamba Training

- IFCA organized the training on behalf of the ag industry – classroom only taught by registrants
- The training website launched on November 15, 2017.
- We held over 90 classes in Illinois
- 11,000 attended the training





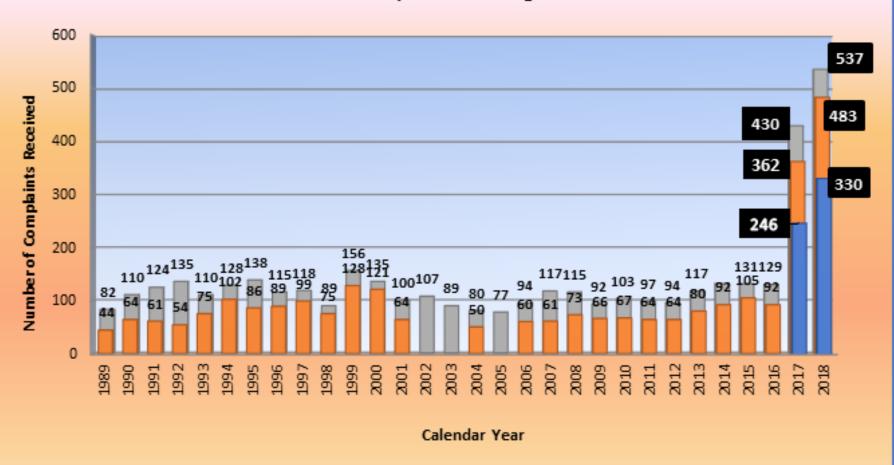
So What Happened in 2018?

With the training, did we have a better year in 2018?





Formal Pesticide Misuse Complaints Received & Investigated by the Illinois Department of Agriculture



Agriculture-related (data missing 2002, 2003, & 2005)

dicamba-related complaints

■Total Pesticide Misuse Complaints received

BAYER OFFICIALS SAY DICAMBA INVESTIGATIONS ARE DOWN IN 2018 VS. 2017

BETTER APPLICATOR EDUCATION PLAYS A BIG PART, OFFICIALS SAY.

By Gil Gullickson 8/31/2018

Now that Bayer has begun integrating Monsanto after its purchase of the St. Louis firm, Bayer executives can comment on matters like dicamba and other issues the combined company faces. Here are some areas they discussed at a press conference at the recent Farm Progress Show, held near Boone, Iowa.

DICAMBA COMPLAINTS ARE DOWN FOR 2018 FROM 2017.

In 2017, inquiries regarding off-target dicamba in the Roundup Ready 2 Xtend system tallied 99 inquires per 1 million



acres. This year, it's down to 13 per million acres, and most revolved around weedcontrol issues, says Brett Begemann, Bayer Crop Science chief operating officer. One

'Worst year ever'

Flamm Orchards looking for resiliency

By Karen Binder AGRINEWS PUBLICATIONS

COBDEN, Ill. - Flamm brothers Jeff and Mike are direct to the point about their prospects at their Union County orchard last

"Last year was hands down the worst year I've ever had," said Jeff, with Mike commenting the same thing minutes later. "Everything we tried just went down the tube."

That comment covered their strawberries. peaches, cucumbers and squash.

"Then we got hit with the dicamba. What we thought was going to be a pretty good apple crop just fizzled at the end and we ended up with less than half a crop," he continued.

For an orchard in operation since 1888 and the also quit growing. fifth-generation brothers working there since the

Dicamba-related complaints

The Illinois Department of Agriculture has reported: In 2017, 430 complaints and 246 of those complaints were dicambarelated.

In 2018, 546 complaints and 330 of those complaints were dicambarelated.

Prior to 2017, an average of 110 misuse complaints per year from 1989 to 2016.

Driftwatch: www. il.driftwatch.org

crop was lost after the leaves on the tops and sides of their apple trees browned and fell off. The fruit on their apple trees

"As apples get ready in the last six weeks, there's apple grow. That didn't happen," Jeff said.

The trees became dry and brittle, Mike explained.

"Actually, the trees were defoliating before we even started harvest. The apples only got to 2- or 2 1/4inch and they just stopped. They quit growing, the sugar levels didn't rise in them like they should have and we were really late getting started because we were waiting on the sugars to get up."

The Flamms believe an untimely temperature inversion in June occurred in "The Bottoms" along the Mississippi River where more soybeans than usual had been planted and protected with dicamba-related products.

Jeff said the herbicide stayed volatile for four to five days after application and was "lifted up to the ceiling" by the sudden tem-

Some members of the Flamm family — Austin, Mike and Jeff — have been huddled up making plans for what they hope is the start of a recovery from "the worst year" at Flamm Orchards in Cobden. Their biggest challenge is loss and long-term damage from suspected dicamba drift their peach and apple orchards.

white oaks and then hit our trees," Jeff said, with Mike adding that "most people don't know what to look for. I think there are people who didn't know what was wrong but their tomato plants were dying in their vard. They just

can put a dollar figure on it. I don't know how you can say ever if you waited 10 to 15 years that this caused this to happen. I just don't know," Mike said.

What's more, no one

The Flamms spent winter reviewing the season as they are ma plans to launch their : year. Final arrangem are made for arriva immigrant labor by e April, a list is comp

Illinois Agrinews, April 12, 2019

QUINCY, IL RETIREMENT AUCTION VEI OPMENT I AND & FOULDME

to the letter I'm not acanything intentional or il- fruit-bearing years. legal," he stressed.

"Dicamba has the ability swered questions out there

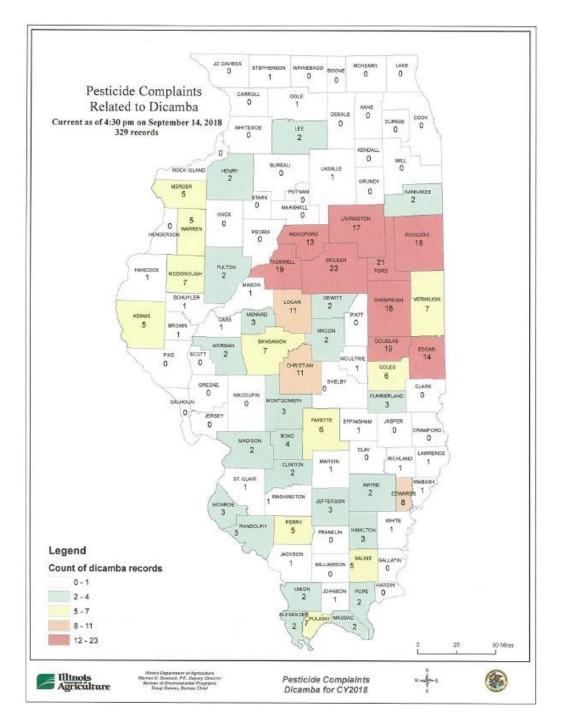
cusing anyone of doing rest of the trees' 20 to 25

"There are lots of unan-

with low vegetable pri last season, they will tinue their diversifica program and add bell

Formal Complaints by County

2018



Not All Dicamba Complaints were About Soybeans







40 complaints regarding trees or orchards

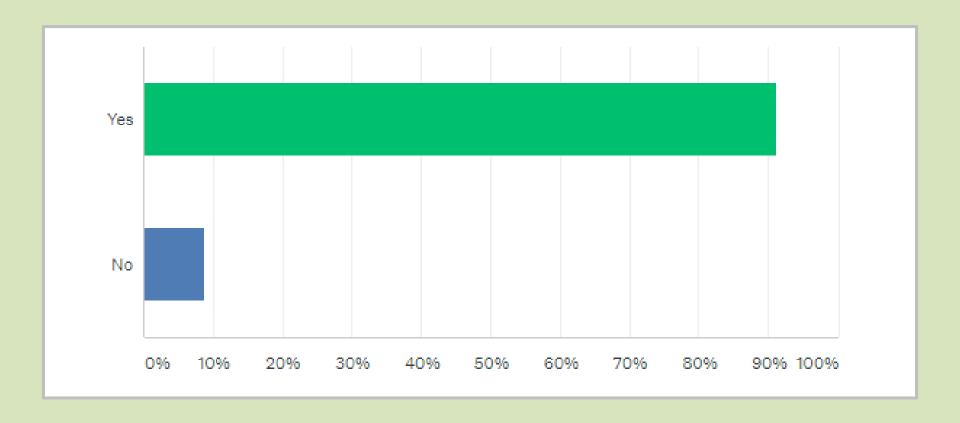
Beyond Damaging Crops, Dicamba is Dividing Communities

As the EPA extends use of the controversial herbicide for two more years, farmers continue to take sides, and the effects on rural America are snowballing.

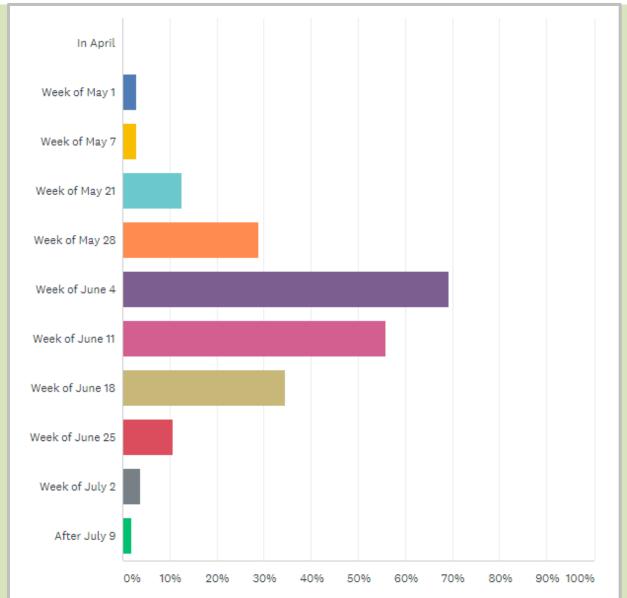


IFCA Ag Retailer Survey – August 2018

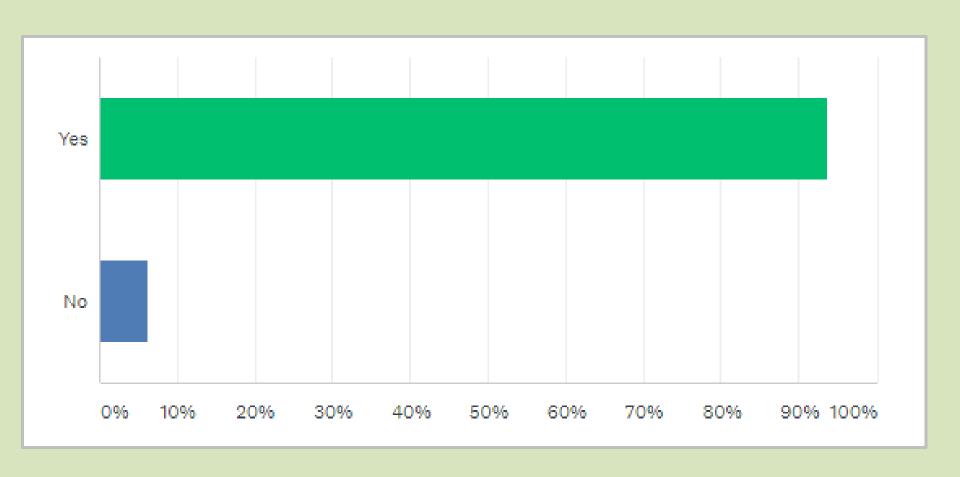
Did you apply dicamba post-emerge (POST) to soybeans this year?



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.



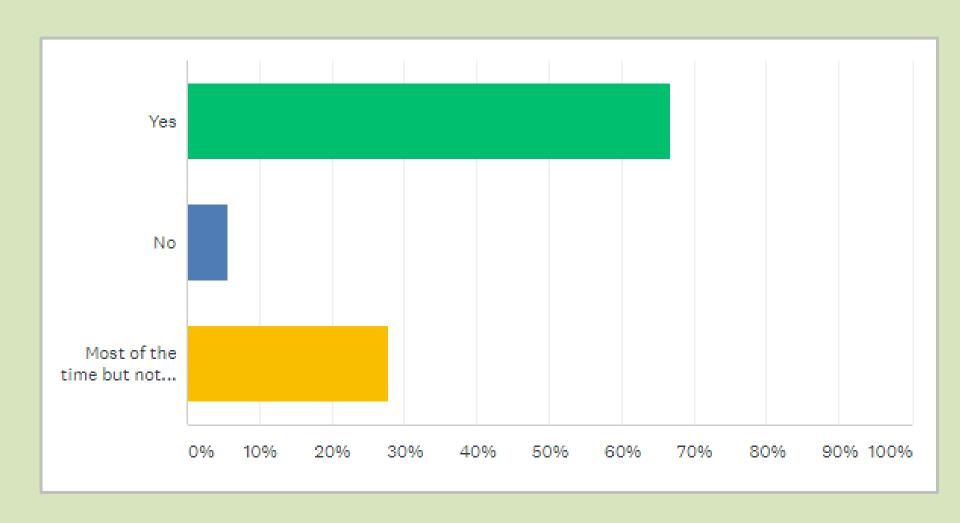
In your experience observing fields in your territory following POST dicamba, did you observe symptoms of dicamba exposure in non-DT soybean fields?



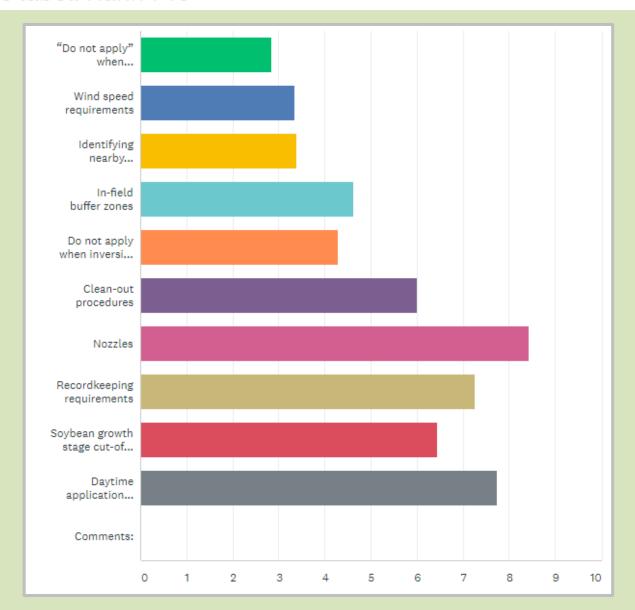
A Common Sight in Central Illinois in 2018



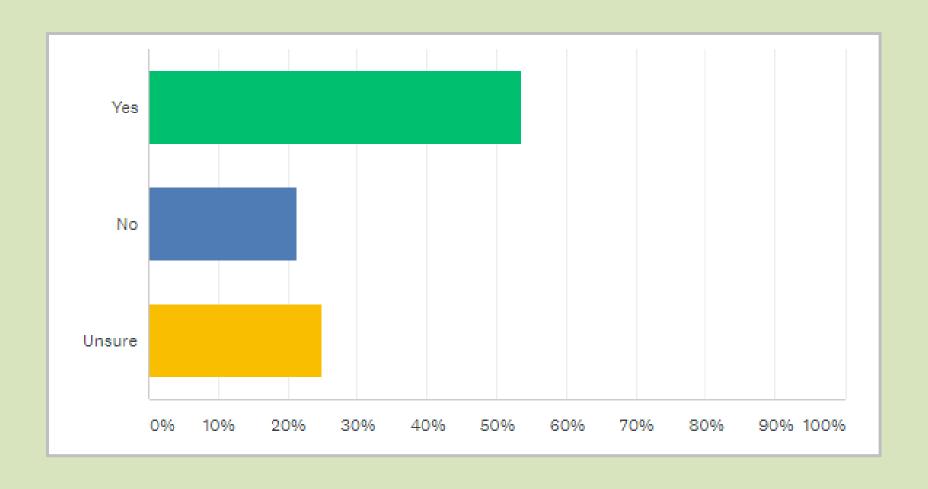
As a commercial applicator, do you feel that your operators were able to follow the dicamba product label effectively this year?



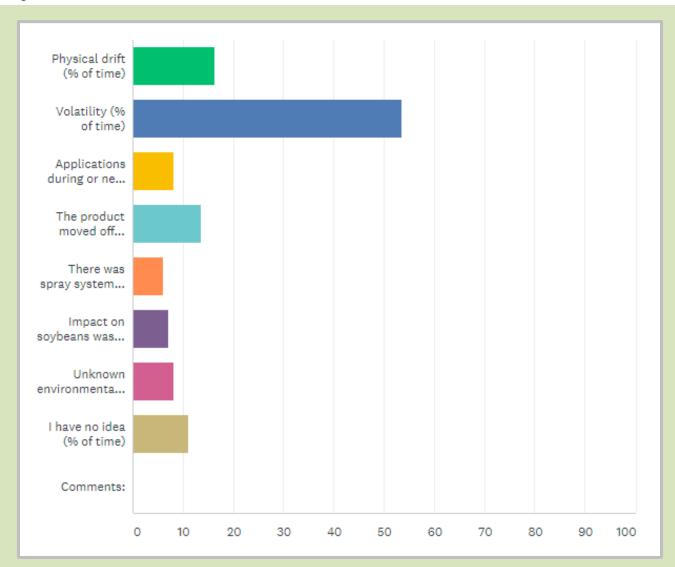
Please rank, using the number "1" as indicating the most difficult factor followed by 2,3,4 etc., the difficulty in performing applications in compliance with the label: Rank 1-10



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

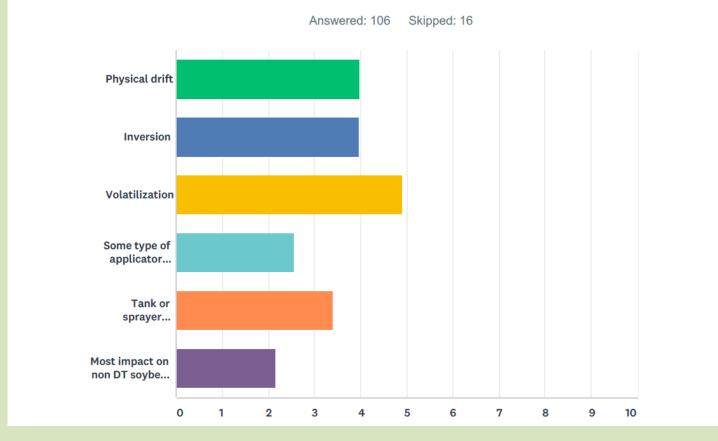


Please indicate below what you believe are the primary factors that resulted in symptoms. Answer this question by inserting the % of time you believe symptomology occurred from these factors. Select only those that you feel are the primary factors. Answers should total 100%.

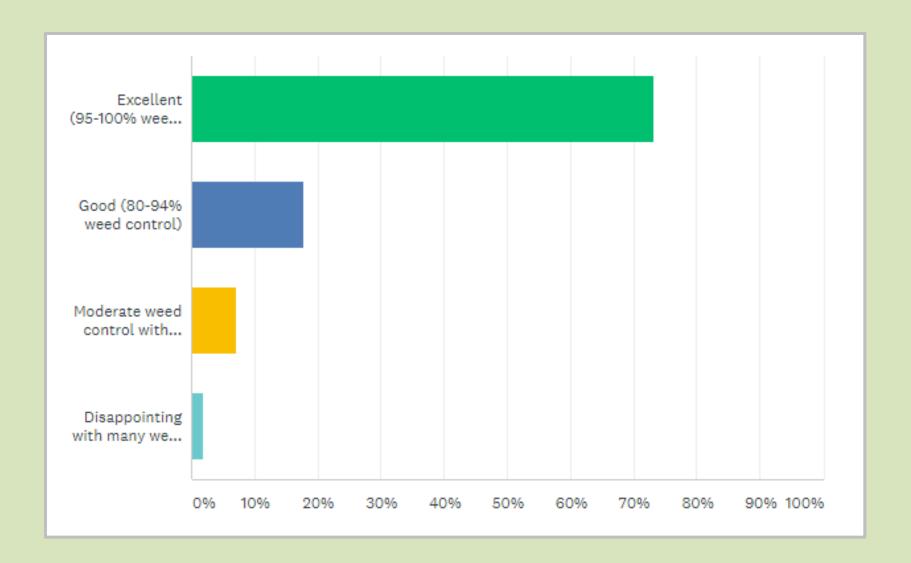


For Comparison: 2017 Response on Factors Retailers Believed Caused Symptoms in Sensitive Soybean

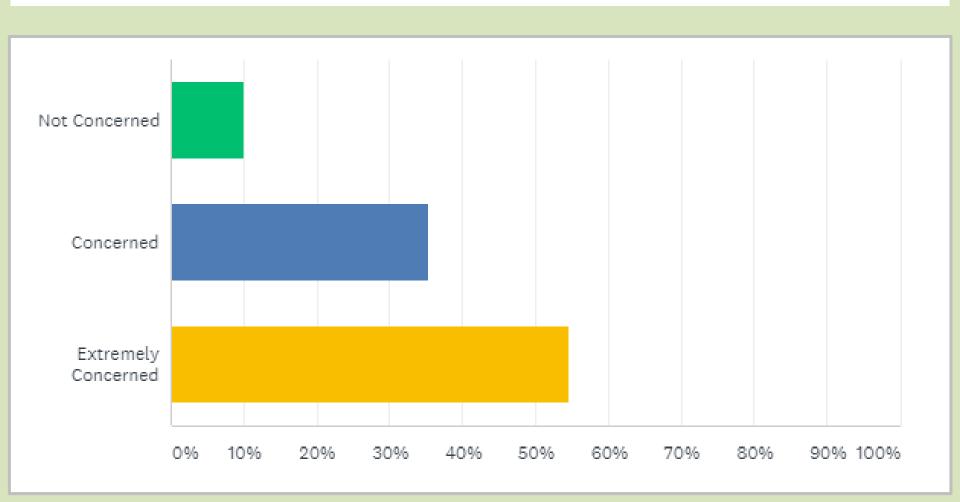
Q14 If you saw symptoms in non DT soybeans, please rank the factors that you believe were the primary cause of symptoms based upon your experience as an applicator. Click on the arrow next to each factor and rank these factors with #1 being highest, to #6 being lowest.



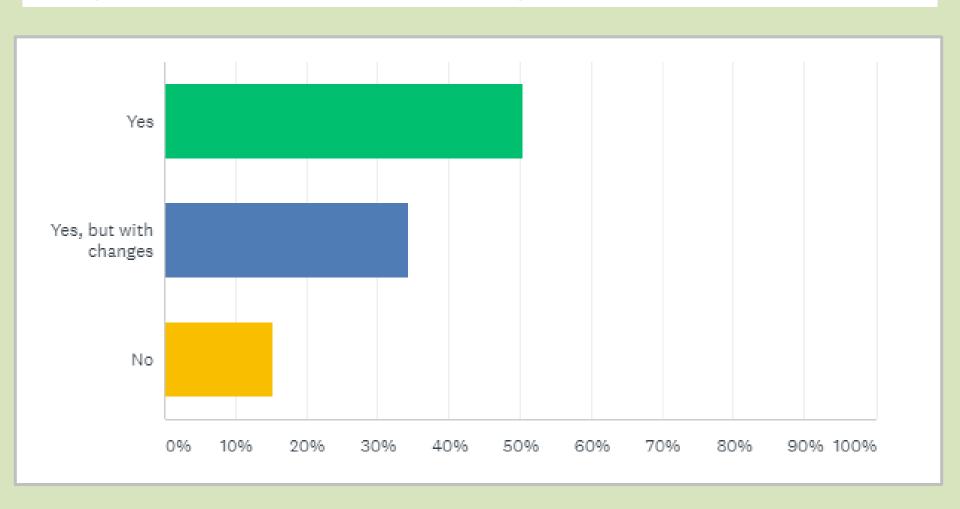
Please rank the success of weed control in Xtend soybeans following the post application of dicamba:



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.



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



Can We Overcome the Obvious Issues?

- Complaints Increase vs Decrease
- Pits Farmer vs Farmer
- Retailers Caught in the Middle
- Still No Clear Answers on Product Movement
- No New Active Ingredients Coming Anytime Soon
- Weed Resistance





IFCA
Suggestions
to USEPA
for 2018



"DO NOT SPRAY" should apply when sensitive crops are planted adjacent to any side of the field to be sprayed



Farmers should report what trait of soybean is planted on all sides prior to application being made



Define the setback distance to protect sensitive crops



Set a cut-off date; June 30 at the latest



All applicators must be Certified Applicators- What Does This Really Mean?

- For farmers the person in the sprayer must be the private applicator
- For retailers, the applicator must be a certified commercial applicator, having passed General Standards and Field Crops
- 4,000 licensed "operators" in Illinois had to be re-certified as applicators!

Pesticide Licensing and Testing Changes

- Currently license over36,000 pesticideapplicators and operators
- 4 License Types
 - Private
 - Dealer
 - Commercial
 - Commercial not-for-hire
 - Must pass General Standards Exam
- 17 License Categories







Training and Testing Clinics





Hats Off to the Spray Operators taking Field Crops – They are an Underappreciated Part of the Industry





Other (not all) Changes:

Residential areas added to DO NOT SPRAY
 requirement when wind is blowing in the direction of
 neighboring sensitive crops or residential areas.

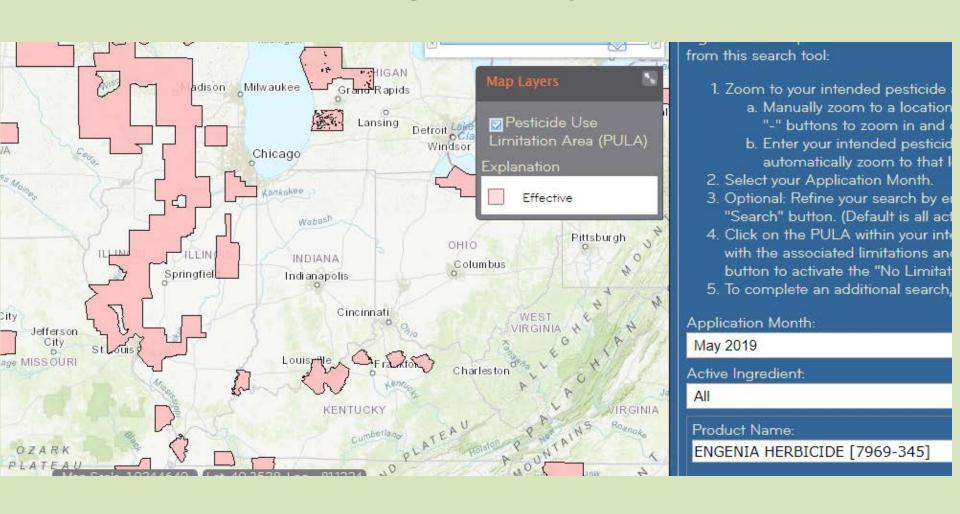
A **residential area** is a land use in which **housing** predominates, as opposed to industrial and commercial **areas**. **Housing** may vary significantly between, and through, **residential areas**. These include single-family **housing**, multi-family **residential**, or mobile homes.

- Indiana considers "neighboring" to be ½ mile.
- No application until 1 hour after sunrise and must cease two hours before sunset.

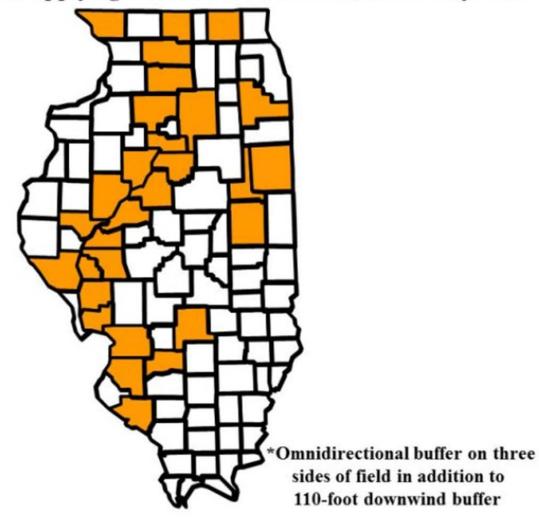
Other (not all) Changes:

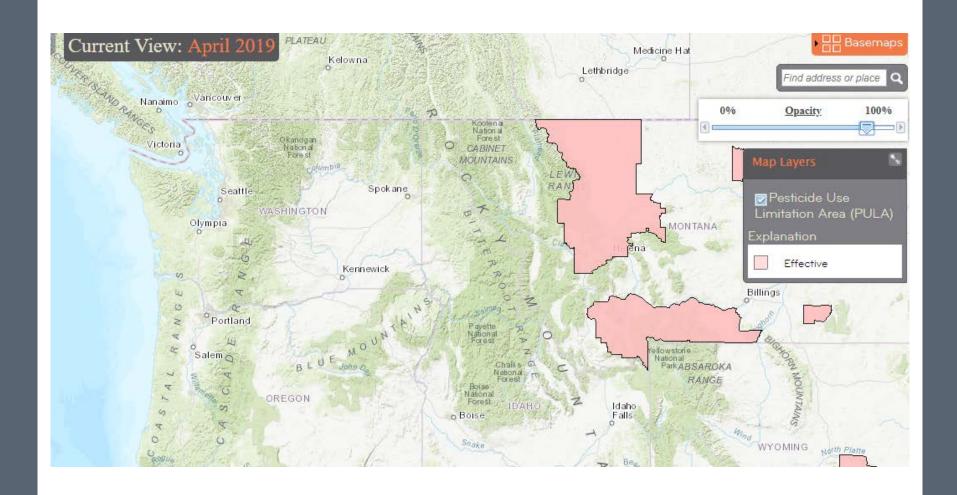
- Mowed or managed areas no longer considered sensitive areas.
- On the buffer requirements (110 downwind or 57 foot for ESA) you can include in the non-sensitive areas next to the field as part of the buffer if these areas are NOT sensitive: (this would include mowed roadsides, dicamba tolerant crops, corn, paved roads, unplanted fields).
- Records must include how the applicator evaluated the areas neighboring the field and calculated the buffers.
- Application must be made with 45 days of planting or before R1, whichever comes first. Planting date is required on the record of application.

Go to USEPA Website "Bulletins Live" to see Endangered Species Areas



Illinois counties in which an omnidirectional, 57-foot buffer* must by included when applying dicamba to dicamba-resistant soybean





We Are Training Again.....



Dicamba Training Calendar

You must pre-register to attend a training class.

Search the calendar below to view the available dates from November 2018 thru December 2018. Click on the highlighted date to view the class details and to begin the registration process. Walk-in registration is available at most locations, but seats are limited. Sign up online to ensure your seat is reserved.

☑ Edit content | ☑ Edit page

Upcoming Classes

January 2019

Dicamba Training - Bloomington, IL

3:00pm - 4:30pm

C Edit event

6 Dicamba Training - Williamson, IL
O 1:00pm - 3:00pm

The Pesticide Regulatory Program in the Era of Dicamba IFCA Convention Peoria Civic Center Peoria, IL - January 29, 2019

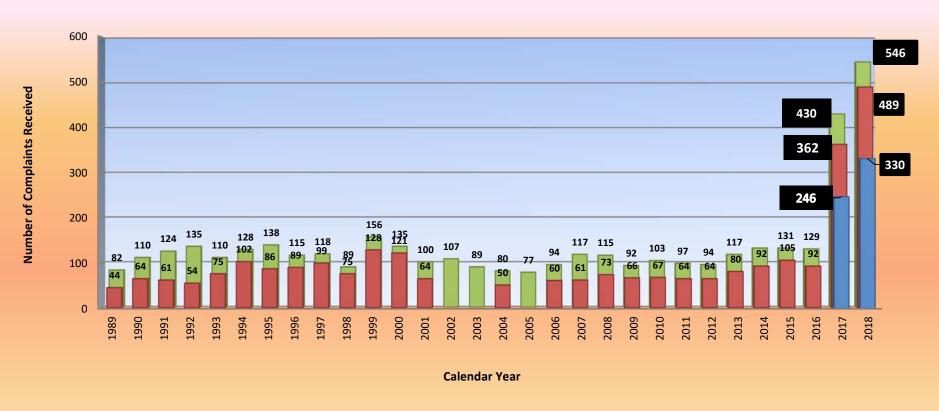
Doug Owens, Chief
Bureau of Environmental Programs
Illinois Department of Agriculture

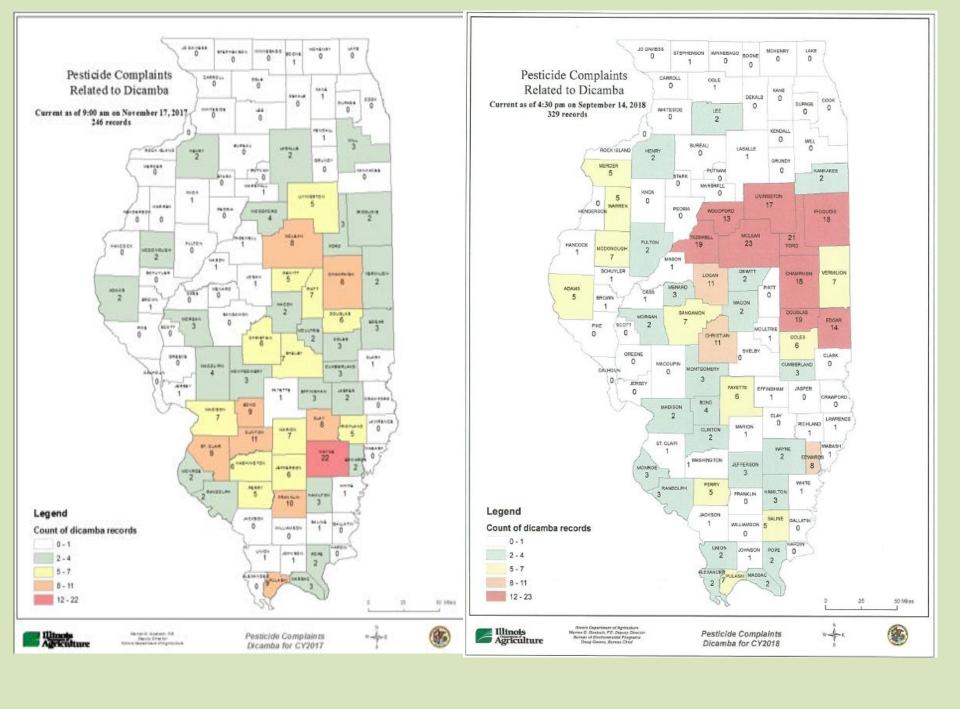




Pesticide Misuse Complaints

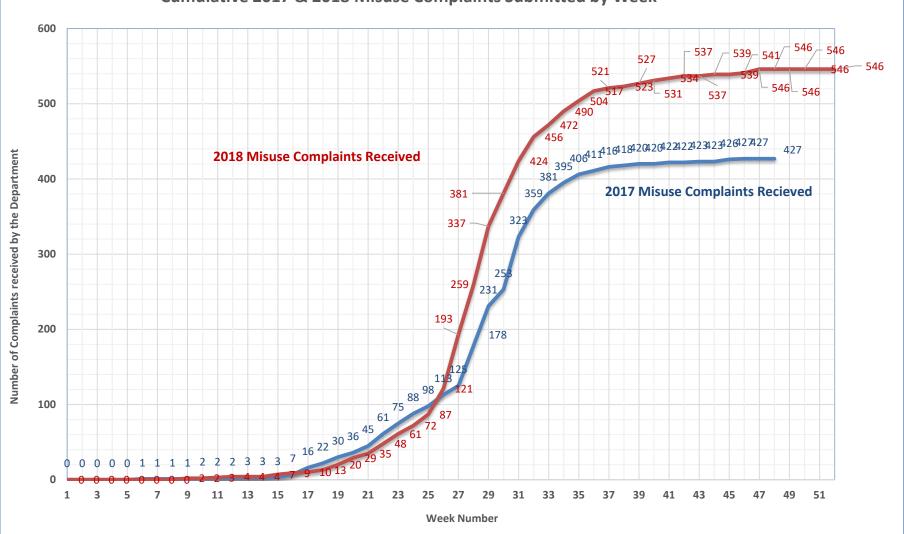
Formal Pesticide Misuse Complaints Received & Investigated by the Illinois Department of Agriculture





2018 Pesticide Misuse Complaints

Cumulative 2017 & 2018 Misuse Complaints Submitted by Week



2017 & 2018 Misuse Complaints Submitted by Week





• 2017: 246 dicamba complaints

• 2018: 330 dicamba complaints

My Industry Response, 2018

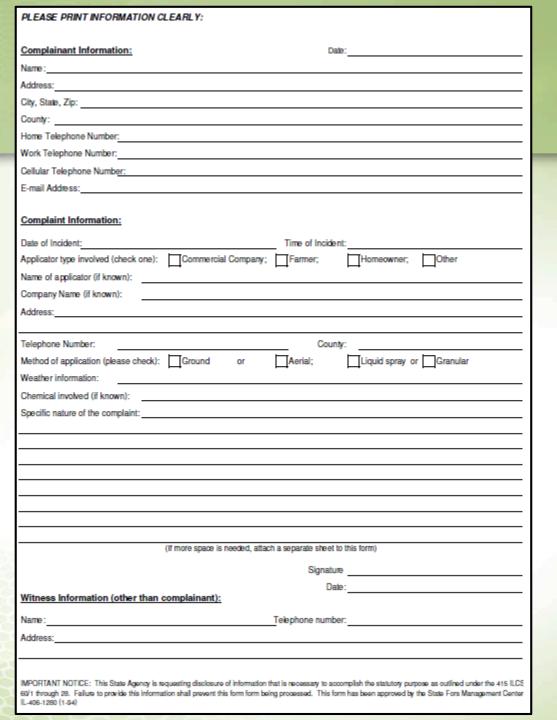


IDA Misuse Case Process

- Department receives formal complaint
- Field representative assigned
- Site visit conducted
- Complainant and respondent interviewed
- Application records checked
- Possible samples collected & lab analysis
- Report submitted to headquarters office for review
- Enforcement determination



Complaint Form





Misuse Case Process

- Department receives formal complaint
- Field representative assigned
- Site visit conducted
- Complainant and respondent interviewed
- Application records checked
- Possible samples collected & lab analysis
- Report submitted to headquarters office for review
- Enforcement determination

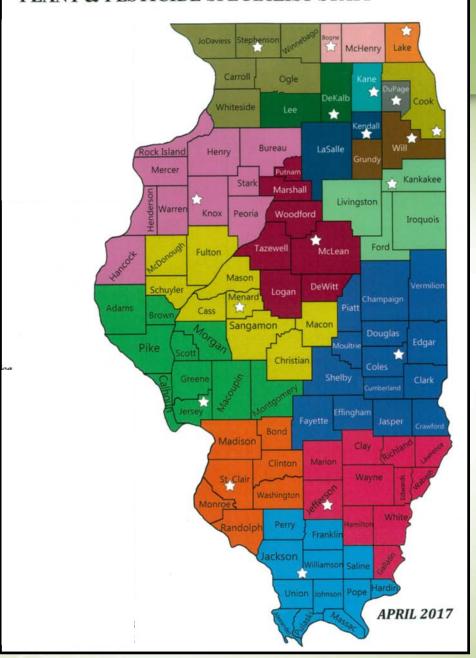


Field inspector assigned

- By email
- Attempt initial contact same day or same week



PESTICIDE & NURSERY PROGRAMS PLANT & PESTICIDE SPECIALIST STAFF



Misuse Case Process

- Department receives formal complaint
- Field representative assigned
- Site visit conducted
- Complainant and respondent interviewed
- Application records checked
- Possible samples collected & lab analysis
- Report submitted to headquarters office for review
- Enforcement determination



Plant / Soil Samples



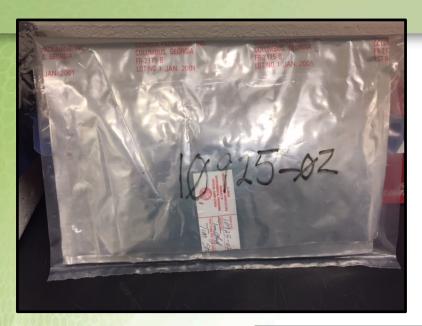








Laboratory Analysis









Misuse Case Process

- Department receives formal complaint
- Field representative assigned
- Site visit conducted
- Complainant and respondent interviewed
- Application records checked
- Possible samples collected & lab analysis
- Report submitted to headquarters office for review
- Enforcement determination



Enforcement Determination – Penalty Matrix

- Points assessed based on Use and Violation Criteria:
 - Harm or Loss Incurred (1 to 6 points)
 - Exposure of plants/no symptoms 1 point
 - Plants show signs of damage 2 points
 - Plant or property damage < \$1,000 4 points</p>
 - Plant or property damage > \$1,000 6 points
 - Signal Word of Product Involved (1 to 4 points)
 - Caution(1), Warning(2), Danger(4)



Enforcement Determination – Penalty Matrix

- Points assessed based on Use and Violation Criteria:
 - Degree of Responsibility (2 to 10 points)
 - Accidental(2), Negligence(4), Knowingly(10)
 - Violator's History for the previous three years (2 to 7 points)
 - Advisory Letter 2 points
 - Warning Letter 3 Points
 - Notice of Fine 5 Points
 - Points are <u>not</u> added for multiple past enforcement actions.
 - Two past warning letters = 3 pts. (not 6 pts.)
 - One NOF and one warning letter = 5 pts. (not 3+5 pts.)



Enforcement Determination – Penalty Matrix

- Violation Type (application vs. product oriented) - (1 to 6 points)
 - Inadequate records 1 point
 - Pesticide Drift 3 points
 - Direct application to a non-target site –4 pts.
 - Falsification of records 6 pts.



Enforcement Determination – Penalty Matrix

Penalty based on assessed points:

6 or less

- advisory letter

■ 7 to 13

- warning letter

■ 14 to 16

- \$750

■ 17 to 19

- \$1,000

■ 20 to 21

- \$2,500

■ 22 to 25

- \$5,000

■ 26 to 29

- \$7,500

■ 30 and above

- \$10,000



Most Common Violations

- Drift wind blowing toward sensitive crop
- Wind speed violations Label requires 3 mph –10 mph
 - Especially winds less than 3 mph.
- Various record keeping omissions
- No downwind buffers maintained/documented



2019/2020 Dicamba-formulations for Soybean (and Cotton)









Dicamba label changes as of October 31, 2018

- Two-year registration (until December 20, 2020)
- Only certified applicators may use and/or apply dicamba over the top (those working under the supervision of a certified applicator may no longer make applications)
- Prohibits over-the-top application of dicamba on soybeans 45 days after planting
- Applications will be allowed only from 1 hour after sunrise to 2 hours before sunset
- Clarify training period for 2019 and beyond, ensuring consistency annual training required each year



Dicamba-specific Training in Illinois - 2019

- Training requirement in Illinois is registrant provided training.
 - Classroom style (check IFCA website for locations)
 - Online training from registrants when available
- •Illinois will accept state-approved dicamba training from other states to satisfy the annual training requirements.
 - The applicator must provide proof of training if requested



The label provisions are quite extensive and must be followed if these tools are to remain available in future years.

ENGENIA®. XTENDIMAX®. AND FEXAPAN® APPLICATION QUICK GUIDE Always read and follow all product labels.



Everyone who makes applications

must attend dicamba-specific.

state-approved training.

TRAINING RECORD KEEPING



You must keep more than just RUP

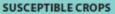
You must record temperature, wind

each application for each field.

speed, and direction before and after

application records.





- You must consult DriftWatch before each application.
- You must scout adjacent and neighboring fields for sensitive/susceptible crops (DriftWatch doesn't map non-DT soybeans).



NOZZLES

Only use the nozzles specified on the products' websites.



TANK MIX PARTNERS

Only tank mix with products listed on the products' websites induding adjuvants.



REQUIRED PPE

Long-sleeved shirt, pants, shoes, socks, and waterproof gloves.



GROUND SPEED

- Never exceed 15 mph ground
- 5 mph recommended in downwind field edges.



BOOM HEIGHT

Set spray booms above the canopy 24 Inches or less.



SETBACKS

Do not mix these products within 50 feet of wells, sinkholes, streams, and rivers (some exception for impervious pads).



APPLICATION TIMING

Only apply between sunrise and sunset.



TEMPERATURE

Do not apply if a temperature inversion exists.



RAIN

Do not apply if rain is predicted (51% chance or greater) within 24 hours.



WIND SPEED

- Apply only when wind speeds are 3-10 mph, including gusts.
- You cannot apply at all when the wind is blowing toward a neighboring sensitive crop.



SPRAYER CLEANING

Clean all traces of AMS from equipment before application. and clean all traces of dicamba from equipment after application according to label directions.



SPRAY VOLUMES

- Minimum spray solution per acre:
- BASF Engenia® 10 gallons

Reference in this publication to any specific commercial product, process,

or service, or the use of any trade, firm, or corporation name is for general

recommendation, or certification of any kind by Purdue Extension or Office of

Indiana State Chemist, Individuals using such products assume responsibility

Informational purposes only and does not constitute an endorsement,

for their use in accordance with current directions of the manufacturer.

- Monsanto Xtendimax® 15 gallons
- DuPont FeXapan® 15 gallons



You must always maintain a downwind buffer in your field except when next to DT beans, corn, sorghum, small grains, proso millet, and fields prepared for planting.

The buffers are:

BASF Engenia® — 110 feet Monsanto Xtendimax® — 110 or

220 feet (depending on rate) DuPont FeXapan* — 110 or 220 feet (depending on rate)





Dec 2017 An equal access/equal opportunity university.

•Following the label, including compliance with the recordkeeping requirements will be very important in 2019!



Required Records for Engenia, Xtendimax, FeXapan Applications

Personal Information		
Name & license number of certified applicator		
Name (and RT number if applicable) of person making application if different from above)		
Dicamba training (mm/dd/yy, dty, CCH or PARP number)		
Pre-application	Date(s) (mm/dd/yy)	
Checked DriffWatch for nearby sensitive sites/crops		
Checked registrant website for tank-mix partners		
Dicamba purchase (include the receipt)		
Sprayer cleaned of all traces of AMS		
Application		
Date (mm/dd/yy)		
Target crop		
Field location/description		
Fleid size		
Pre- or post-emergent (circle one)	O Pre-emergent O P	ost-emergent
Date crop planted (mm/dd/yy)		
List all pesticide trade names applied Include EPA registration numbers)		
List all adjuvant trade names		
Downwind buffer (circle one)	100% my fieldft. in my field +ft. in adjacent property	100% adjacent property
Application Weather Conditions		
	Start of Application	End of Application
Time		
Temperature at boom helght		
Average wind speed over 2-minute span, facing wind at boom height		
Average wind direction over 2-minute span (0-360 degrees preferred over N, S, SW, etc.)		
Method or equipment used to measure weather		
Post-application		
Date sprayer cleaned of all dicamba residue (mm/dd/yy)		
Cleanout method according to label directions		

Websites

BASF Engenia* Herbicide Tank Mix: www.engeniatankmix.com

Monsanto Xtendimax® Application Requirements: www.xtendimaxapplicationrequirements.com

DuPont FeXapan® Application Requirements: www.fexapanapplicationrequirements.dupont.com

DriftWatch: driftwatch.org

Office of Indiana State Chemist Dicamba Update (downloadable PDF available here): www.oisc.purdue.edu/pesticide/dicamba.html

License Fees

Private Applicator	\$30 (3 yr)
Commercial Not For HireApplicatorOperator	\$60 (3 yr) \$45 (3 yr)
CommercialApplicatorOperator	\$180 (3 yr) \$120 (3 yr)
■ Dealer	\$300 (3 yr)



Varied State approaches

Missouri

No additional requirements beyond the federally-approved product labels for the 2019 application season.

Tennessee

No additional requirements beyond the federally-approved product labels for the 2019 application season.

Indiana

Initially considered a request for a 24(c) label with a "hard cutoff date" of June 20 but has since determined that no additional requirements beyond the federally-approved product labels will be required for the 2019 application season.



Varied State approaches (con't)

North Dakota

June 30 Cutoff Date

Minnesota

June 20 Cutoff Date

Arkansas

May 25 Cutoff Date

1 mile buffer zone around research stations, organic crops, specialty crops, non-tolerant dicamba crops and other sensitive crops.



Illinois tightens dicamba restrictions as state and company officials grapple with complaints

By Christopher Walljasper March 19, 2019







John Sullivan, Acting IL Dept of Ag Director

"If we have to take some steps and make some decisions that we know not everybody's going to agree with, well, that's part of being in a leadership position."



Illinois 24c Issued March 1, 2019



June 30, 2019 Application Cutoff Date



Residential Areas downwind that are neighboring or adjacent is a DO NOT SPRAY



Defines Protections for Sensitive Areas (trees, native plants)



Defines State DNR Nature Preserves as Sensitive Areas



NEWS

NASDA-NASS

FOUNDATION

TRADE SHOW

Home / NASDA letter to EPA re: Section 24(c) of FIFRA

NASDA letter to EPA re: Section 24(c) of FIFRA

Letter

Dear Administrator Wheeler,

The National Association of State Departments of Agriculture (NASDA) represents the Commissioners, Secretaries, and Directors of the state departments of agriculture in all fifty states and four U.S. territories. NASDA members are co-regulators with the Environmental Protection Agency (EPA) in the implementation of FIFRA in the states and work closely with EPA to regulate more than 900 active ingredients contained in as many as 40,000 formulated products used nationwide that are registered under FIFRA.



It has been a terrible spring planting season in the Cornbelt

Illinois: Dicamba – June 30 Cut-Off Date Supported Despite Weather Delays – DTN



The Illinois Fertilizer and Chemical Association (IFCA) has issued a statement on dicamba stewardship supporting June 30 as a cutoff date for application in that state.

Resources on Dicamba



Q Enter search criteria...

Illinois Fertilizer & Chemical Association Supply · Service · Stewardship



To assist and represent the crop production supply and service industry while promoting the sound stewardship and utilization of agricultural inputs.

Dicamba Resources



2019 Dicamba Precautions

Provided by: U of I, Purdue, OSU

Download



Guide for Keeping Weather Records

Provided by: North Dakota State University Extension Service

Download



Inversion Guidance 2017 - NDSU

Provided by: North Dakota State University Extension Service

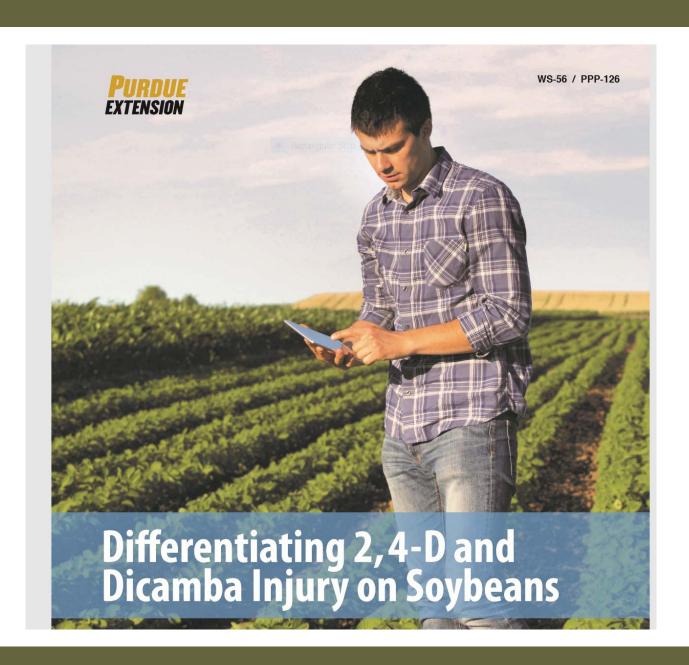
Download



Differentiating 2,4-D and Dicamba Injury on Soybeans

Provided by: Purdue Extension

Download





Illinois Fertilizer & Chemical Association

Supply • Service • Stewardship

309.827.2774 or jeanp@ifca.com