

# DICAMBA 2018: HOPE MEETS REALITY

Bryan Young

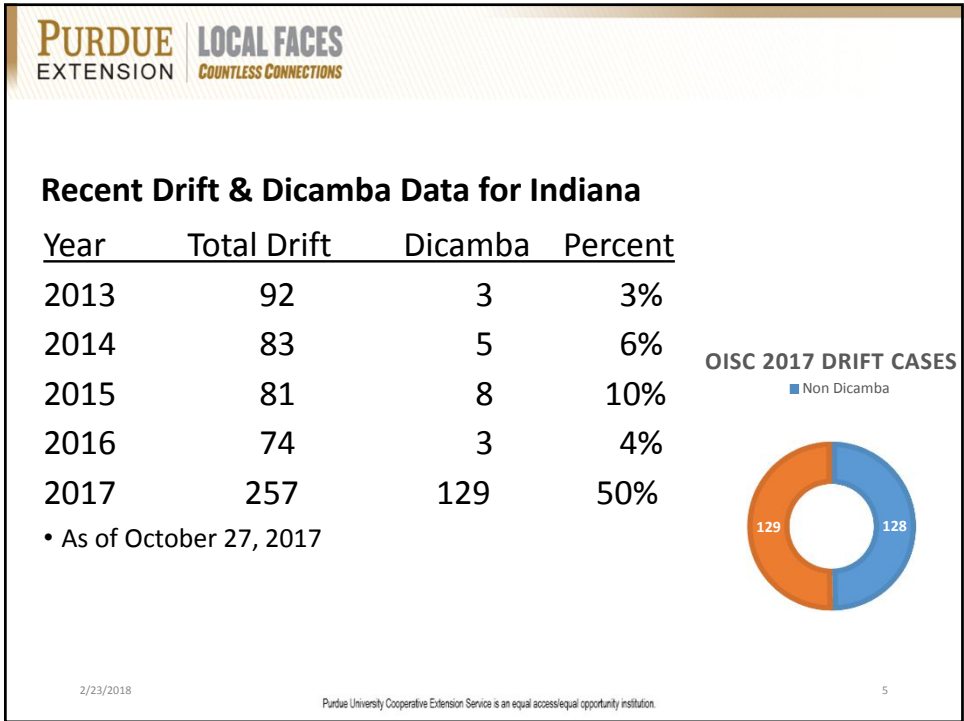
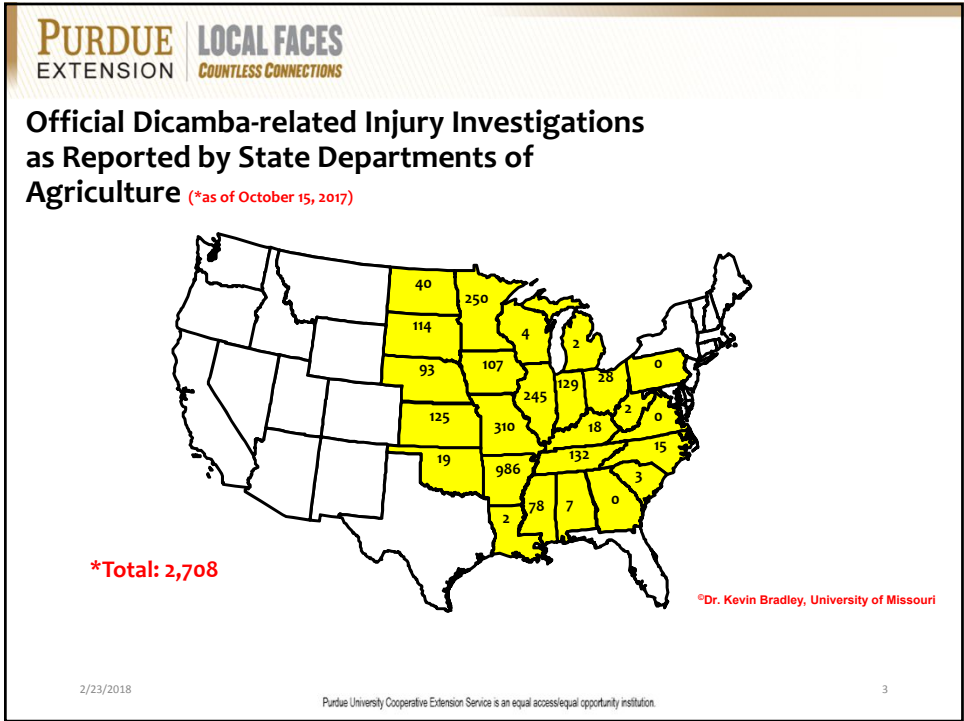


2018 CPDA Summer Conference - Chicago

**PURDUE** | **LOCAL FACES**  
EXTENSION | *COUNTLESS CONNECTIONS*

**Dicamba –  
What Happened in 2017?**





**PURDUE** | **LOCAL FACES**  
EXTENSION | COUNTLESS CONNECTIONS

### Details of **87** dicamba investigations to date

<b>Applicators involved:</b>	<b>Products applied:</b>	<b>Target crop/site:</b>
• 24% Commercial applicator	• 43% Engenia	• 92% Soybean
• 63% Private applicator	• 9% FeXapan	• 6% Corn
• 13% Noncertified applicator	• 38% Xtendimax	• 2% R.O.W.
	• 10% Other	

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### 2017 Dicamba Complaint Violations to Date **(2/21/18)**

- Total violative cases... **82/87...94%**
- Drift... **24%**
- Wind blowing toward adjacent sensitive crops...**43%**
- Wind (or gusts) greater than 15 mph ...**15%**
- Wind less than 3 mph...**2%**
- Did not maintain a 110 ft. buffer ...**2%**
- Did not visit website (registrant or DriftWatch)... **74%**
- Rain in forecast within 24 hours ...**1%**

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## Details of **87** dicamba investigations to date

Off-Target Exposure Crop/Site	Route of Off-Target Exposure
<ul style="list-style-type: none"> <li>• 93% Non-DT Soybeans</li> <li>• 1% Melons</li> <li>• 2% Ornamentals</li> <li>• 1% Trees</li> <li>• 2% Garden</li> <li>• 1% Person</li> </ul>	<ul style="list-style-type: none"> <li>• 24% Particle drift</li> <li>• 0% Inversion</li> <li>• 0% Volatilization</li> <li>• 0% Dust particles</li> <li>• 0% Runoff</li> <li>• 2% Tank contamination</li> <li>• <b>74% Undeterminable</b></li> </ul>

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## 2018 Indiana Required Training for Users of Engenia, FeXapan and Xtendimax dicamba products

*“Threading the Needle”*

Presenter:

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# Dicamba Workshop

*Facilitated by the WSSA – April 2018*

- ❑ Compile a comprehensive account of areas planted in dicamba-resistant crop cultivars by county, and quantities of all formulations of dicamba sold at minimum by state.
- ❑ Relate reported damage complaints to terrain and weather conditions.
- ❑ Improve deficiencies with herbicide labels to address: 1) lack of uniformity in label organization; 2) difficulty in finding and interpreting use instructions; 3) names of dicamba sensitive crops, landscape and native plants, and trees; 4) “neighboring distance” for sensitive crops; 5) descriptions of conditions leading to atmospheric inversions to protect applicators and neighbors.
- ❑ Coordinate applicator training such that all trainers present the same detailed message.
- ❑ Perform research to better characterize the potential volatility of new herbicide formulations.
- ❑ Perform research to better determine: 1) dose vs. damage relationships for key crops; 2) how to protect growers, property owners, and the public from off-target movement; and 3) modes of dicamba movement that are not currently accounted for.

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*Weed Science*

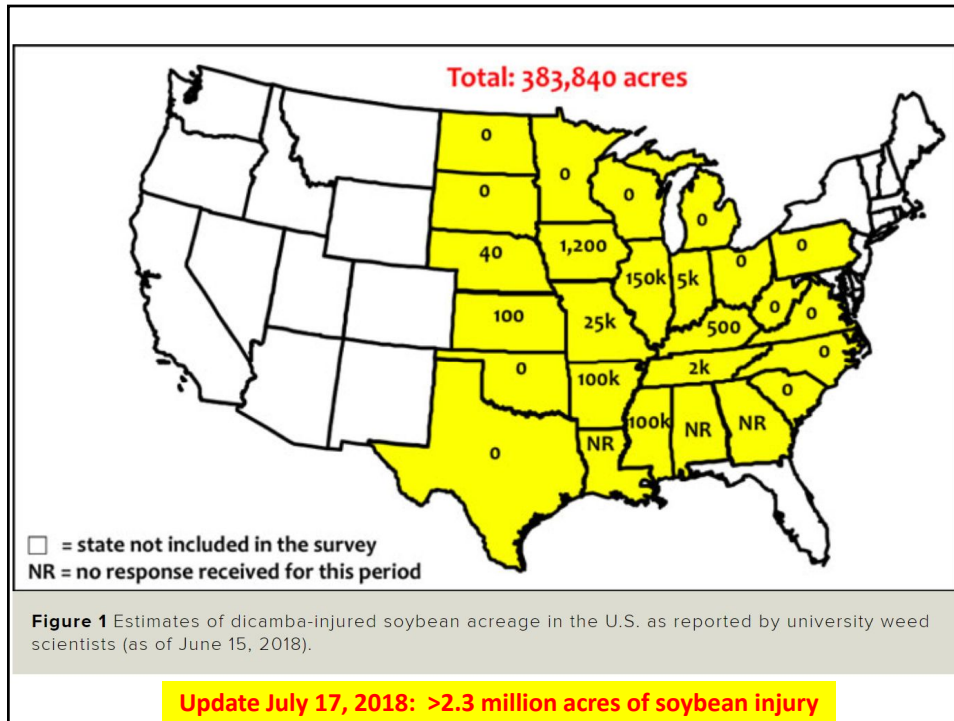


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## Indiana Office of the State Chemist

Complaints	July 6 <sup>th</sup> 2017	July 6 <sup>th</sup> 2018
<b>Total</b>	<b>111</b>	<b>135</b>
<b>Dicamba</b>	<b>26</b>	<b>50</b>
<b>% Dicamba</b>	<b>23%</b>	<b>37%</b>

State Reporting*	Total Number of Cases Under Investigation	Crops and Plants Under Investigation with Alleged Dicamba Injury									
		Soybean	Cotton	Grapes	Melons	Tomatoes	Ornamental Trees	Fruit Trees	Other Vegetable Crops	Annual Flowers	Other
Alabama	1	1									
Arkansas	42	12	2			1	9		2	1	15
Florida	0										
Georgia	0										
Indiana	3	2			1						
Louisiana	2	2									
Mississippi	13	11	2								
Minnesota	1	1									
Missouri	69	12		3	1	15	13	7	15	3	
Nebraska	6	1					3				2
North Carolina	2	0		2							
Ohio	0										
South Dakota	1			1							
Tennessee	14	1				3	8				2
Virginia	0										
<b>Total:</b>	<b>154</b>	<b>43</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>19</b>	<b>33</b>	<b>7</b>	<b>17</b>	<b>4</b>	<b>19</b>

\*No responses received from IA, IL, KS, KY, MI, ND, OK, PA, SC, TX, WI, WV Departments of Agriculture.



**Table 1** Official alleged dicamba injury investigations as reported by state Departments of Agriculture (as of June 15, 2018).

**PURDUE**  
EXTENSION

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COUNTLESS CONNECTIONS

## Recognizing Inversions

- Under clear to partly cloudy skies with low winds, a surface inversion is often present from late afternoon until mid-morning
- Be especially careful near sunset and an hour or so after sunrise, unless...
  - There is low heavy cloud cover
  - The wind speed is greater than 5-6 mph at ground level
  - There has been at least a 5 degree temperature rise since sunrise


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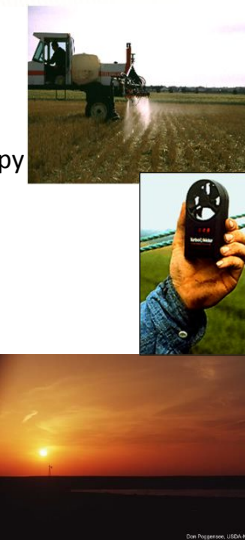
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**At the Application Field/Site:**

- Sprayers must not travel more than 15 mph
- Spray boom must not exceed 24 in. above the crop canopy
- Wind speeds must be between 3 and 10 mph, including gusts
- Only apply between sunrise and sunset.
- At start & end of each application measure & record the following at boom height:
  - Date
  - Times
  - Temperatures
  - Wind directions
  - Wind speeds and gusts
  - Measuring equipment & method (ex. Pocket Spray Smart) 

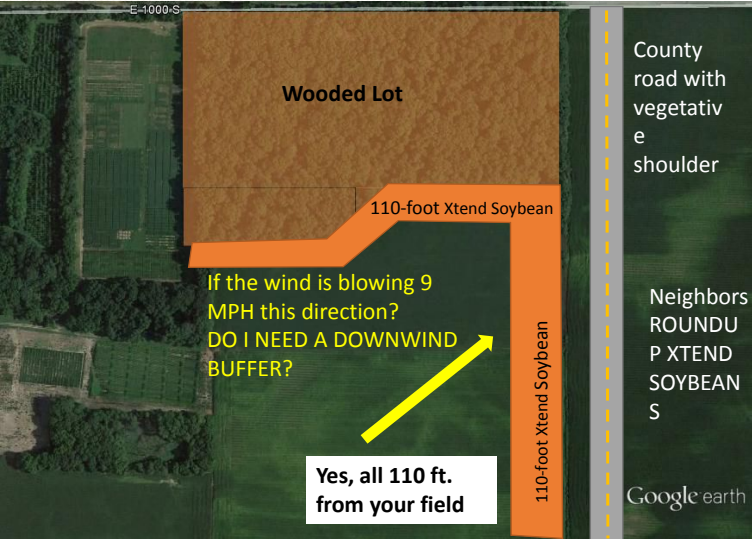


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Wooded Lot

County road with vegetative shoulder

Neighbors ROUNDUP XTEND SOYBEANS

110-foot Xtend Soybean

110-foot Xtend Soybean

If the wind is blowing 9 MPH this direction?  
DO I NEED A DOWNWIND BUFFER?

Yes, all 110 ft. from your field

Google earth

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## Best Management Practices

- Do not apply if sensitive crops are within ½ mile
- Pay attention to wind forecast 2-3 days after application
- Use an app like Spray Smart to check for inversions
- Avoid applications when temperatures exceed 80 degrees
  - Higher temps = higher risk for volatility
- Consider Preplant, Preemergence, or very early Postemergence only



TALK TO YOUR NEIGHBORS

## What's Next?

- Complaints will continue to be filed for 2018 season
- EPA ruling in August?
  - More restrictions by state?
- Driving forces similar to herbicide resistance
  - Some research questions without answers
  - Human tendency to simplify complex challenges
  - Everyone impacted even if doing things right