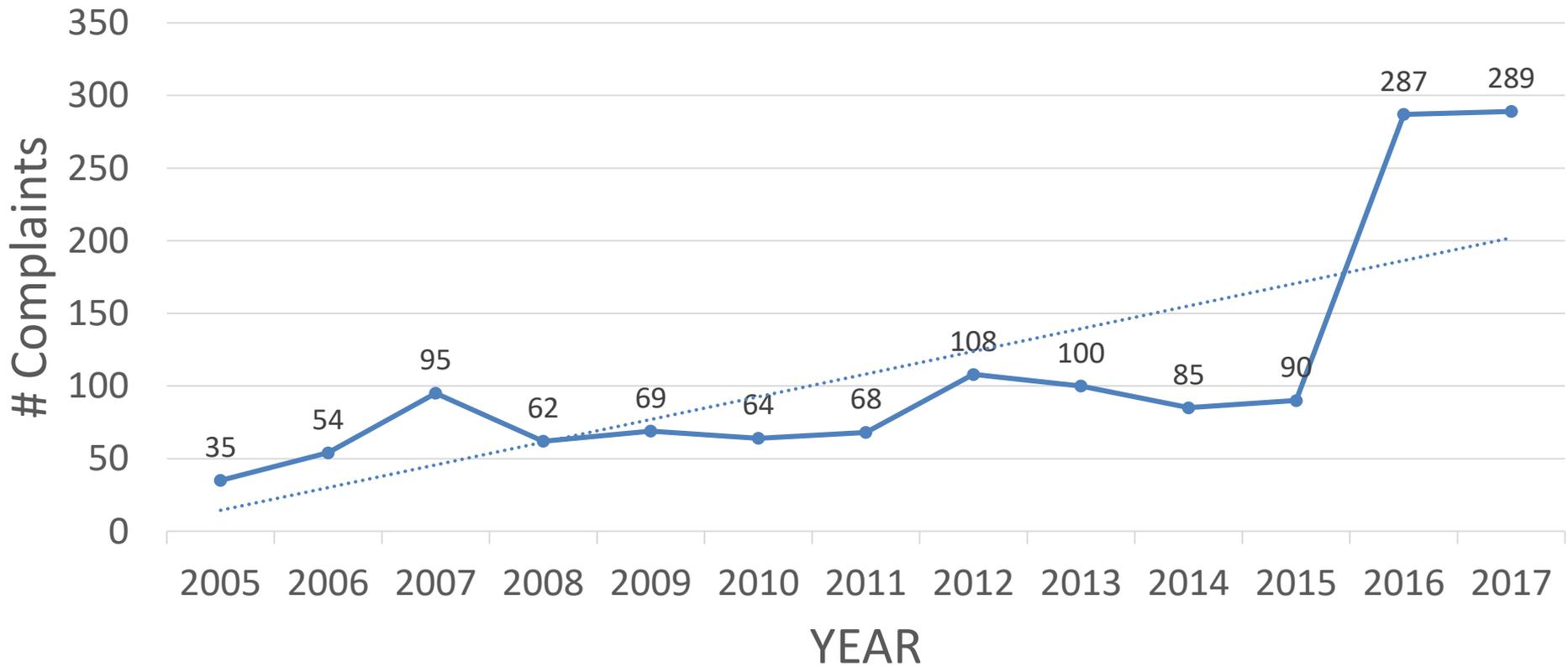


Dicamba Update 2019

OISC Annual Drift Complaints



What happened in 2017 & 2018?

- 2017 total off-target movement (drift) complaints... **287**
- 2017 dicamba drift complaints... **132**
- 2017 percentage dicamba of total drift... **46%**

- 2018 total drift complaints... **289**
- 2018 dicamba drift complaints... **146**
- 2018 percentage dicamba of total drift... **51%**

2013-2018* Drift & Dicamba Data for Indiana

<u>Year</u>	<u>Total Drift</u>	<u>Dicamba</u>	<u>Percent</u>
2013	108	3	3 %
2014	100	5	5%
2015	85	8	9%
2016	90	3	3%
2017	287	132	46%
2018	289	146	51%

*2018 data is only partial at this point

2018 Label Changes Included

- RUP classification
- Mandatory dicamba-specific training for all users
- Mandatory detailed recordkeeping requirements, including weather
- Prohibit application near downwind sensitive crops
- Clarified mandatory buffer requirements
- Reduced max. wind speed from 15 to 10 mph
- Beefed up tank cleaning requirements

2018 OISC Dicamba Investigations

- Evidence of off-target movement... **100%**
- No documented violation... **15%**
- Documented drift violation only... **0%**
- Documented drift management violation only... **71%**
- Documented drift violation + drift management violation... **14%**

Comparison of Investigations

	2017	2018
Applicator License		
Commercial	23%	35%
Private	62%	63%
No license	15%	2%
Target Crop or Site		
Soybeans	92%	82%
Corn	6%	17%
Other	2%	1%
Product Applied		
Engenia	45%	56%
FeXapan	7%	5%
Xtendimax	40%	32%
Other dicamba	8%	6%

Xtend Soybean

Not Xtend Soybean



Route of Off-Target Pesticide Movement

- Drift = misuse, if it can be proved
- Application during inversion = misuse, if it can be proved
- Volatilization = not misuse, if it can be proved

2017 & 2018 Dicamba Complaint Violations

	2017	2018
Total violative cases	93%	65% (?)
Off-target movement from drift	23%	13%
Wind blowing toward adjacent sensitive crops	46%	59%
Wind (or gusts) greater than 10 mph	4%	5%
Wind less than 3 mph	8%	7%
All drift management	?	56%

2019 Dicamba Label Changes

- Everyone handling dicamba **MUST** be certified
 - Can no longer operate under the supervision of a certified applicator
- Annual dicamba training is required
 - Will **NOT** be provided by Purdue Extension or OISC
 - BASF, Bayer, and Corteva will provide trainings
- Applications up to R1 (flowering) or 45 days after planting
- Application hours from 1 hour after sunrise until 2 hours before sunset

2019 Dicamba Label Changes

- Managed areas can be included in downwind buffers
 - Mowed roadsides, rights-of-way, managed pastures, etc...
- Application records must be generated within 72 hours of application
- Do not allow tank mix to exceed pH 5.0
- Omni-directional 57' buffers for endangered species protection
 - Posey & Harrison Counties only



Pesticide


 Search OISC site only

[OISC Home](#) [Pesticide](#) [Feed/Pet Food](#) [Fertilizer](#) [Seed](#) [My Records](#) [Laws/Regulations](#) [Contact OISC](#) [Soil Scientists](#) [Links](#) [Industrial Hemp](#)

[Pesticide Home](#) [Applicator Categories](#) [Application Forms](#) [Farmers](#) [Pre-Treat Form](#) [Products/Devices](#) [Review Board](#) [Schools](#)

2019 Dicamba Herbicide Updates

Dicamba containing herbicides, including formulations such as XtendiMax with VaporGrip Technology (EPA Reg. No. 524-617), Engenia Herbicide (EPA Reg. No. 7969-345), and FeXapan Herbicide Plus VaporGrip Technology (EPA Reg. No. 352-913) have been in the news recently based on off-target movement (drift) complaints.

This website is intended to provide interested parties with regulatory and other related information associated with dicamba herbicides in Indiana.

1. [Dicamba Frequently Asked Questions](#) (11-26-18) (pdf, 196kb)
2. [Counties with Endangered Species](#) (11-26-18) (pdf, 99kb)
3. [Dicamba RUP Dealer Notice](#) (11-20-17) (pdf, 869kb)
4. [Registrants of Dicamba-Containing Agricultural Herbicide Products Notice](#) (12-20-17) (pdf, 39kb)
5. [List of state RUP dicamba herbicides](#) (03-27-18) (pdf, 80kb)
6. [Final Rule - Restricted Use Classification of Dicamba Containing Herbicides](#)
7. [Options for Dealing with a Pesticide Drift Incident](#) (PPP-110) (pdf, 658kb)
8. [How to File a Fertilizer or Pesticide Complaint](#) (pdf, 30kb)
9. [Filing a Pesticide or Fertilizer/Manure Complaint](#) (pdf, 86kb)
10. [Understanding Soybean Response to Dicamba](#) (BASF) (pdf, 1,333kb)
11. [Association of American Pesticide Control Officials \(AAPCO\) Dicamba page](#)
12. [Removing Herbicide Residues from Agricultural Application Equipment](#) (How Proper Cleaning Helps Prevent Crop Damage and Improves Performance)
13. [Response of Roundup Ready Soybean Yield to Dicamba Exposure](#) (source: Purdue Extension)
14. [Response of Glyphosate-Tolerant Soybean Yield Components to Dicamba Exposure](#) (source: ResearchGate)
15. [DriftWatch Sensitive Crop/Site Registry](#) (source: DriftWatch)

If you have trouble accessing this page because of a disability, please contact the webmaster at walshm@purdue.edu

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2019 OISC Compliance Strategy

- Increase monitoring & investigation of incidents involving tomatoes, vegetables, grapes, melons, gardens, ornamentals, flowers, trees, & organic crops.
- For complaints of exposure to soybeans, on-site confirmation of dicamba exposure symptomology, but no attempt to document cause.
- For insistent soybean exposure complainants, request a significant amount of upfront information & detail before initiating an investigation.
- Utilize certification suspension & revocation for egregious violators. *
- Work with stakeholders to identify measurement(s) of success for safe & effective application in 2019 & beyond.

2019 OISC Compliance Strategy

If investigation found that mandatory training not attended,
Enforcement action = Revocation of certification for **5 YEARS**

Applicators must do basics.

For 5 years cannot apply any Restricted Use Pesticide (ex. atrazine, gramoxone)

Retest at end of 5 years

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

PPP-119

 CERTIFICATION & TRAINING Everyone who uses (apply, mix/load, purchase, dispose) these products must be fully certified & attend mandatory dicamba training annually.	 RECORD KEEPING • You must generate application records within 72 hours & keep them for 2 years. • See attached "2019 Required Records" for details on each application.	SENSITIVE SITES, CROPS, & RESIDENTIAL AREAS Prior to each application you must: <ul style="list-style-type: none"> • scout neighboring/adjacent (within ½ mile) crops, sites, & residential areas, • consult www.driftwatch.org for sensitive crops, and • consult www.epa.gov/espp for endangered species. 	 NOZZLES Only use the nozzles specified on the products' websites.
 TANK MIX PARTNERS Only tank mix with products listed on the products' websites — including adjuvants.	 REQUIRED PPE Long-sleeved shirt, pants, shoes, socks, and waterproof gloves.	 GROUND SPEED <ul style="list-style-type: none"> • Never exceed 15 mph ground speed. • 5 mph recommended in downwind field edges. 	 BOOM HEIGHT Set spray booms above the canopy 24 inches or less.
 WATER SETBACKS Do not mix these products within 50 feet of wells, sinkholes, streams, and rivers (some exception for impervious pads).	 APPLICATION TIMING Apply only between one hour after sunrise & two hours before sunset. Do not apply after R1 growth stage, or later than 45 days after planting.	 TEMPERATURE Do not apply if a temperature inversion exists at field level.	WIND DIRECTION Do not apply when wind is blowing toward neighboring/adjacent sensitive crops (within ½ mile) or non-DT soybeans or sensitive residential plants (within ¼ mile). STOP application immediately if wind shifts toward sensitive crops or sensitive residential plants during application.
 WIND SPEED Apply only when wind speeds are 3-10 mph, including gusts.	 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 15 gallons per acre.	 BUFFERS Always maintain a 110' or 220' downwind in-field buffer <u>except</u> when next to label-listed non-sensitive crops & areas. Maintain a 57' buffer in every direction if application in a county with protected endangered species (Harrison & Posey counties).

2019 Required Records for Each Application of Engenia, Xtendimax, FeXapan

Personal Information			
Name & license number of certified applicator			
Dicamba training (mm/dd/yy, city)			
Pre-application		Date(s) (mm/dd/yy)	
Checked areas within 1/2 mile for sensitive crops, sites, residences			
Checked DriftWatch for nearby sensitive sites/crops			
Checked registrant website for tank-mix partners			
Checked www.epa.gov/espp for endangered species restrictions			
Dicamba purchase (attach the receipt)			
Sprayer cleaned of all traces of AMS			
Application			
Date (mm/dd/yy)			
Target crop			
Field location/description			
Field size			
Pre- or post-emergent (circle one)		<input type="checkbox"/> Pre-emergent <input type="checkbox"/> Post-emergent	
Date crop planted (mm/dd/yy)			
List all pesticide trade names applied (include EPA registration numbers)			
Nozzle (make/model, pressure)			
List all adjuvant trade names			
Downwind buffer calculation (circle one)		<input type="checkbox"/> 100% my field <input type="checkbox"/> ___ ft. in my field + ___ ft. in adjacent property <input type="checkbox"/> 100% adjacent property	
Application Weather Conditions			
		Start of Application	End of Application
Time			
Air temperature at boom height			
Wind speed at boom height			
Wind direction (blowing from)			
Method or equipment used to measure weather			
Post-application			
Date sprayer cleaned of all dicamba residue (mm/dd/yy)			
Sprayer cleanout method			
Photo/copy of front page of product label & 24(c)/SLN label (attach)			



Websites

BASF Engenia® Herbicide Tank Mix: www.engeniatankmix.com
 Bayer/Monsanto Xtendimax® Application Requirements: www.xtendimaxapplicationrequirements.com
 Corteva/DuPont FeXapan® Application Requirements: www.fexapanapplicationrequirements.dupont.com
 DriftWatch: driftwatch.org
 OISC dicamba update (downloadable PDF of Record Sheet, 24(c)/SLN Label & FAQ): www.oisc.purdue.edu/pesticide/dicamba.html