

A Summary of Cases

April 8, 2019

2017/0734 On May 4, 2017, the Certification & Licensing section contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report Aspen Tree & Turf Care did not renew their business license.

Disposition:

- A.** Timothy W. Leensvaart and Aspen Tree & Turf Care were cited for 145 counts of violation of section 65(9) of the Indiana Pesticide Use and Application Law for professing to be in the business of applying pesticides for hire without having an Indiana pesticide business license. A civil penalty in the amount of \$36,250.00 (145 counts x \$250.00 per count) was assessed.
- B.** It should be noted that as of January 12, 2018, all of the above listed websites were still active including the "Service Area" which included northwest Indiana.
- C.** On September 11, 2018, Mr. Leensvaart called and stated the service area on the web page was modified to exclude Indiana. He stated he does not work in Indiana except for four or five jobs. I asked him to send me all of the pesticide application invoices he had for Indiana.
- D.** Mr. Leensvaart also stated we had the incorrect address for him. He stated his address is 15110 S. 109th Avenue, Orland Park, Illinois 60467.
- E.** On September 4, 2018, the OISC Licensing Department notified the Compliance Department they had denied Timothy W. Leensvaart's (Aspen Tree and Turf Care) license application and returned his check #1134 for \$90.00 due to his outstanding civil penalty.
- F.** On September 18, 2018, OISC received invoices from Aspen Tree and Turf Care indicating pesticide applications occurred on November 15, 2016 and July 17, 2017.
- G.** On October 9, 2018, Timothy W. Leensvaart and Aspen Tree & Turf Care were cited for two (2) counts of violation of section 65(9) of the Indiana Pesticide Use and Application Law for applying pesticides for hire without having an Indiana pesticide business license. The original civil penalty was reduced to \$500.00 (2 counts x \$250.00 per count).

2017/1161 On July 27, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Michael Hunt was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of the registrant's website and a sensitive crop registry. Michael Hunt was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application when the wind is blowing toward a susceptible crop. A civil penalty in the amount of \$100.00 was assessed for this violation.

Consideration was given to the fact in a dicamba outreach memo dated February 21, 2017, the Indiana Pesticide Review Board urged OISC to apply the most stringent penalties available for these types of violations. As of January 28, 2019, Michael Hunt had not paid the civil penalty. The case was forwarded to collections.

2017/1266 On September 14, 2017, I performed a marketplace inspection at Tractor Supply Inc. located at 2375 E. Pleasant Street in Noblesville, Indiana. I spoke with the manager Susan Harbaugh and informed her of the process of the marketplace inspection.

Disposition: Mosquitno, LLC was cited for violation of section 57(1) of the Indiana Pesticide Registration Law for distributing a pesticide that was not registered for sale in Indiana. A civil penalty in the amount of \$500.00 was assessed for this violation. Consideration was given to the fact this was their second violation of similar nature. See case number 2016/0815. As of January 9, 2019, Mosquitno, LLC had not paid the civil penalty. The case was forwarded to collections.

2018/0011 On October 12, 2017, the Complainant contacted the Office of Indiana State Chemist (OISC) to report problems receiving treatment paperwork from Ryon Pest Solutions for a termite control treatment completed on October 24, 2017. The Compliance Officer of the Office of the Indiana State Chemist (OISC) forwarded a voice message from Yvonne Schapson for follow-up.

Disposition:

A. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding:

- a. the drilling of treatment holes in a slab no more than twelve (12) inches apart;
- b. failure to drill or treat under the outside wooden walkway planks;
- c. failure to drill and/or treat the wooden deck on the south side of the house;
- d. failure to drill holes in the hollow block on the east side of the house;
- e. failure to vertically drill and treat under the basement slab; and
- f. failure to properly treat the two (2) inaccessible crawl spaces.

A civil penalty in the amount of \$250.00 was assessed for this violation.

B. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(3) of the Indiana Pesticide Use and Application Law for using a known ineffective amount of pesticide by only applying 100 gallons of termiticide use dilution when label directions required over 300 gallons. A civil penalty in the amount of \$250.00 was assessed for this violation.

C. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-5-2(2) for failure to keep all required for-hire termiticide application records. A civil penalty in the amount of \$50.00 was assessed for this violation. Consideration was given to the fact this was the second offense of similar nature within the past five (5) years. See case number 2014/0366.

D. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section

65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-5-2(5), for failure to follow the rule regarding the issuance of a disclosure form for any label treatment discrepancies. A civil penalty in the amount of \$250.00 was assessed for this violation.

E. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(7) of the Indiana Pesticide Use and Application Law for refusing to supply information when required or requested by the state chemist in the course of an investigation or inspection. A civil penalty in the amount of \$250.00 was assessed for this violation.

F. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(8) of the Indiana Pesticide Use and Application Law for making false or fraudulent records, invoices or reports. A civil penalty in the amount of \$250.00 was assessed for this violation.

G. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(14) of the Indiana Pesticide Use and Application Law for making false or misleading statements during or after an inspection concerning any infestation or infection of pests. A civil penalty in the amount of \$250.00 was assessed for this violation.

H. A total civil penalty for this investigation is \$1,550.00. In addition, the 7b certifications and licenses issued to Tim Ryon, Jacob Gerber and Ryon's Pest Solution were revoked.

Consideration was given to the fact less than half (50%) of a directed by-the-label rate of termiticide use dilution was applied.

I. On February 26, 2018, Tim Ryon called OISC. Mr. Ryon stated that he did not want to appeal the decision by OISC in this matter. He stated he did not put enough chemical in the house in question and did not leave a Disclosure form with the homeowner. At the conclusion of the conversation, it was determined that the civil penalty would be reduced to \$700.00 and Mr. Ryon would be allowed to pay the penalty at \$100.00 per month for seven (7) consecutive months. The license revocation for Mr. Ryon and Mr. Gerber would still be enforced.

J. On February 4, 2019, OISC received the final civil penalty payment from Mr. Ryon.

2018/0076

On November 13, 2017, I visited AgriSelect on N. Green River Road in Evansville, Indiana after being notified by Inspector Schnur that there was a potential bulk pesticide containment violation. Inspector Schnur advised that there were several 275-gallon totes of liquid pesticides that were not in any kind of secondary containment.

- A. AgriSelect was cited for forty-eight (48) counts of violation of section 52 of the Indiana Pesticide Registration Law, specifically 355 IAC 5-4-1(a), for storing a bulk storage container outside of secondary containment. A civil penalty in the amount of \$12,000.00 (48 counts x \$250.00 per count) was assessed. However, the proposed civil penalty was reduced to \$4,200.00. Consideration was given to the fact AgriSelect cooperated during the investigation; corrective action was taken; there was a good-faith effort to comply and no restricted use pesticides were involved.
- B. On January 3, 2018, I contacted Luke Snyder regarding the proposed reduction in civil penalty. He returned an email stating he would accept the proposed enforcement. Mr.

Snyder was advised the Indiana Pesticide Review Board would have to approve the mitigation since by rule, OISC cannot mitigate for this type of violation.

- C. On March 16, 2018, the Indiana Pesticide Review Board authorized the agreed upon mitigation.

2018/0090 On November 17, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report that a couple months ago, he was trimming trees in a housing addition when TruGreen sprayed the lawn with a pesticide where he was working and the pesticide drift sent him to the hospital.

Disposition: Brian Bohn was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application into a temperature inversion and applying a pesticide when someone is in the area. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact there was potential for human harm.

2018/0144 On December 14, 2017, I performed a routine marketplace inspection at Wabash Hardware located at 1351 N. Cass Street, Wabash, Indiana. I spoke with the Owner Brian Howenstine and informed him of the process of the marketplace inspection.

Disposition:

A. On December 22, 2017, the information was forwarded to the Product Registration section for a label review. On January 23, 2018, the label review was complete and revealed the following:

- a) "Small critters" is too generic;
- b) The active ingredient dried blood is not approved for food crop;
- c) Signal word "Keep Out of Reach of Children" statement is not located prominently on the front panel of the label;

B. Tree World Plant Care Products, Inc. was cited for violation of section 57(1) of the Indiana Pesticide Registration Law for distributing a pesticide product that was not registered in the state of Indiana. A civil penalty in the amount of \$250.00 was assessed for this violation. However, this civil penalty was held in abeyance provided the pesticide product becomes properly registered within thirty (30) days from receipt of this notice.

C. Tree World Plant Care Products, Inc. was cited for violation of section 57(5) of the Indiana Pesticide Registration Law for distributing a pesticide product that contained false or misleading statements. A civil penalty in the amount of \$250.00 was assessed for this violation.

D. As of June 22, 2018, Tree World Plant Care Products Inc. had not properly registered their pesticide product. As a result, the \$250.00 held in abeyance was re-assessed.

E. On October 12, 2018, Allan Alford of Tree World Plant Care Products, Inc. called and stated they have decided not to register this pesticide product in Indiana.

2018/0151 On November 6, 2017, I performed a routine marketplace inspection at Precision Chemical LLC located at 1888 W. Shelton Road, Boonville, Indiana. I spoke with the

company President, Fred Shurtz and informed him of the process of the marketplace inspection.

Disposition:

A. Precision Chemical LLC was cited for forty-six (46) counts of violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 5-4-1a), for storing a bulk storage container outside of secondary containment. A civil penalty in the amount of \$11,500.00 (46 counts x \$250.00 per count) was assessed. Consideration was given to the fact Precision Chemical LLC cooperated during the inspection; corrective action was taken; there were no previous violations of similar nature; a good-faith effort to comply and no restricted use pesticides were involved. However, by rule, OISC may not mitigate violations of this rule.

B. On January 30, 2018, I contacted Fred Shurtz of Precision Chemical LLC and advised him of the proposed enforcement. He requested the civil penalty be reduced and stated he has taken steps to ensure there would be no future violations of similar nature. I advised him I was not allowed by rule to mitigate but I would take his request to the Indiana Pesticide Review Board. Due to the mitigation reasons listed above, the proposed civil penalty would be reduced to \$1,725.00 if approved by the Board.

D. On March 16, 2018, the Indiana Pesticide Review Board accepted the mitigation of this civil penalty.

2018/0177 On February 14, 2018, I performed a routine marketplace inspection at True Value located at 25 Boone Village Shopping Center in Zionsville, IN. I spoke with the Store Manager Joe Hollingsworth and informed him of the process of the marketplace inspection.

Disposition: Sunbelt Chemicals was cited for two (2) counts of violation of section 57(1) of the Indiana Pesticide Registration Law for distributing a pesticide product that was not registered in Indiana. A civil penalty in the amount of \$500.00 (2 counts x \$250.00 per count) was assessed. However, this civil penalty will be held in abeyance and not assessed provided Sunbelt Chemicals properly registers this pesticide product within thirty (30) days from receipt of this notice. Sunbelt Chemicals was cited for two (2) counts (2017 & 2018) of violation of section 57(5) of the Indiana Pesticide Registration Law for distributing a pesticide product that was adulterated in that Smart Advanced Pool Systems Liquid Chlorinizer had a label guarantee for 10% sodium hypochlorite when in fact the laboratory analysis revealed only 6.5%. A civil penalty in the amount of \$500.00 (2 counts x \$250.00 per count) was assessed for this violation. The Registration Section notified Compliance that the pesticide product was renewed on April 19, 2018.

2018/0192 On January 26, 2018, I performed a routine bulk pesticide container containment inspection at Langdon Brothers Seed in Hartford City, Indiana. I spoke with sales agronomist Troy Millsbaugh and informed him of what I needed to inspect. Mr. Millsbaugh stated that all they had on the property were 270-gallon portable refillable containers (PRC) of herbicides.

Disposition:

A. Langdon Bros. Seed was cited for one hundred six counts of violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 5-4-1(a), for storing bulk pesticide storage container(s) outside of secondary containment. A civil penalty in the amount of \$26,500.00 (106 counts x \$250.00 per count) was assessed. By rule, this type of violation may not be mitigated by OISC according to the Indiana Pesticide Review Board (IPRB).

B. On May 30, 2018, Gary Langdon called and requested mitigation on the civil penalty. He stated he was in the process of hiring a contractor to construct secondary containment and assured me this would not happen again. He stated the secondary containment would be built no later than August 15, 2018. As a result, it was agreed upon by Mr. Landgon and myself that the proposed civil penalty would be reduced to \$11,925.00.

Consideration was given to the fact Landgon Bros. Seed cooperated during the investigation; corrective action was taken and no restricted use pesticides were involved. In addition, another \$5,000.00 would be held in abeyance and not assessed provided Langdon Brothers Seed commits no further violations of similar nature for a period of five (5) years, beginning January 11, 2019. Mr. Langdon was again advised that this mitigation had to meet with the approval of the IPRB. The remaining balance of \$6,925.00 of the civil penalty would be paid.

C. On June 14, 2018, the IPRB approved the requested mitigation.

D. On August 8, 2018, Gary Langdon sent an email to OISC requesting an extension on building secondary containment. An extension was granted until November 15, 2018, with the understanding no further containment violations would be committed.

E. On October 24, 2018, Mr. Langdon sent an email stating, *“After Patricia Dunn visited our facility and we reviewed the rules and considered our options we decided to not build a containment building at this time. The \$90,000 it was going to take to do it right and cover all the things required for now and the future would be too much of a burden for our company unless our sales increase dramatically. We have decided to follow the 30 day rule on shuttles and we’ve alerted our supplier we cannot take delivery until we are ready to use product. We appreciate your staff working with us on visits and emails to better explain the rules and help to keep us in compliance.”*

2018/0240

On March 12, 2018, I performed a routine marketplace inspection at Big R located at 2100 Peace Tree Village Rochester, Indiana. I spoke with the Store Manager Allen Engel and informed him of the process of the marketplace inspection.

Disposition:

A. On March 26, 2018, this information was forwarded to the Registration Section for label review.

B. On August 9, 2018, the label review for the candle² was complete and revealed:

- a. Palm wax is not an EPA approved ingredient;
- b. The label is missing the full address of the registrant;
- c. “flying insects” is too broad of a statement;
- d. Candles are not usually made of Deet since Deet is a topical repellent.

C. Murphy’s Naturals Inc. was cited for violation of section 57(1) of the Indiana Pesticide Registration Law for distributing an unregistered pesticide product (Murphy’s Mosquito Candle) into Indiana. A civil penalty in the amount of \$500.00 was assessed for this

violation.

D. Murphy's Naturals Inc. was cited for violation of section 57(5) of the Indiana Pesticide Registration Law for distributing into Indiana a pesticide product whose label was false or misleading. A civil penalty in the amount of \$500.00 was assessed for this violation.

E. Consideration was given to the fact this was Murphy's Naturals Inc.'s second violation of similar nature. See case number 2017/1102.

2018/0261 On March 20, 2018, I performed a routine marketplace inspection at Ace Hardware located at 785 W McClain St. Scottsburg, IN. I spoke with the Owner Scott Howser and informed him of the process of the marketplace inspection.

Disposition:

A. On March 27, 2018, the information was forwarded to the Registration Section for label review.

B. On March 27, 2018, the label review revealed the following:

For Natures Defense Animal Repellent

a. The word 'organic' was listed in the active ingredients;

For Natures Defense Mouse and Rat Repellent

a. The word 'organic' was listed in the active ingredients;

C. Weiser Group LLC was cited for two (2) counts of violation of section 57(1) of the Indiana Pesticide Registration Law for distribution of unregistered pesticide products. A civil penalty in the amount of \$500.00 (2 counts x \$250.00 per count) was assessed for this violation. However, this civil penalty was held in abeyance provided Weiser Group LLC properly registers these two pesticide products within thirty (30) days from receipt of this notice.

D. Weiser Group LLC was cited for two (2) counts of violation of section 57(5) of the Indiana Pesticide Registration Law for distributing pesticide products that were misbranded. A civil penalty in the amount of \$500.00 (2 counts x \$250.00 per count) was assessed.

2018/0430 On May 3, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his property that occurred on May 2, 2018.

Disposition: Eldon Herschberger was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed to McGrawsville Feed and Grain Company. Consideration was given to the fact there were egregious wind speeds blowing towards a sensitive area.

2018/0437 On May 1, 2018, Agent Kelley performed a routine virtual marketplace inspection at Solutions Pest and Lawn online store.

Disposition:

A. Solutions Pest and Lawn was cited for violation of section 57(1) for distributing an

unregistered pesticide into Indiana. A civil penalty in the amount of \$250.00 was assessed for this violation. However, this civil penalty was held in abeyance and will not be assessed provided Solutions Pest and Lawn properly registers the product within thirty (30) days from receipt of this notice.

B. Solutions Pest and Lawn was cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 357 IAC 1-3-3, for distributing a restricted use pesticide into Indiana without having an Indiana dealer permit. A civil penalty in the amount of \$250.00 was assessed for this violation.

C. As of September 17, 2018, Solutions Pest and Lawn had not properly registered Quali-Pro Fipronil 0.0143 G Broadcast Insecticide in the state of Indiana. Therefore, the original penalty for violation of section 57(1) was reinstated.

D. The total amount of civil penalty assessed for this investigation is \$500.00.

2018/0446

On May 10, 2018, Steve Westerfield spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a possible pesticide drift. Mr. Westerfield stated a farm field west of his property was sprayed approximately one week ago when it was windy. Mr. Westerfield noticed today that ornamentals on his property now appear to be injured as a result of the application.

Disposition: Brian Metz was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact this was his first violation of similar nature. Consideration was also given to the fact a restricted use pesticide was involved.

2018/0491

On May 18, 2018, Lori Sullivan spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding an agricultural drift complaint. Ms. Sullivan stated she was calling for her elderly parents. Ms. Sullivan stated her parent's pasture and her dad were drifted on by an application made to a field north of their property. Ms. Sullivan believes the field is farmed by Jason Reichenbaugh.

Disposition: Jason Reichenbaugh was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift to people. A civil penalty in the amount of \$100.00 was assessed for this violation. Consideration was given to the fact this was Jason Reichenbaugh's first violation of similar nature. Consideration was also given to the fact a restricted use pesticide was involved.

2018/0532

On May 22, 2018, I performed a routine marketplace inspection at Target located in Fishers, Indiana. I spoke with the Food and Beverage Leader Laura Stanley and informed her of the process of the marketplace inspection.

Disposition:

A. On June 5, 2018, the information was forwarded to the Registration Section for a label review.

B. On August 9, 2018, the label review was complete and revealed:

- a. Missing ingredient for whatever makes the incense green;
- b. Whatever holds the incense together is missing from the label;
- c. "Deet Free" is false and misleading since Deet is usually a topical ingredient not found in incense.

C. Murphy's Naturals, Inc. was cited for violation of section 57(1) of the Indiana Pesticide Registration Law for distributing an unregistered pesticide product into Indiana. A civil penalty in the amount of \$500.00 was assessed for this violation.

D. Murphy's Naturals, Inc. was cited for violation of section 57(5) of the Indiana Pesticide Registration Law for distributing a pesticide product into Indiana that was false and misleading. A civil penalty in the amount of \$500.00 was assessed for this violation.

E. Consideration was given to the fact this was Murphy's Naturals, Inc.'s second violation of similar nature. See case number 2017/1102.

2018/0575

On May 28, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected herbicide damage to his trees and plants. The photos that were sent to OISC by the complainant were forwarded to Purdue Plant Pest Diagnostic Lab (PPDL). Dr. Creswell of PPDL indicated this appeared to be herbicide exposure.

Disposition: Joshua Meharry and Vince Seward were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact this was Mr. Hinkle's first violation of similar nature. Consideration was also given to the fact a restricted use pesticide was involved.

2018/0590

On May 31, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report that during a routine inspection of the motel, she discovered three pump-type sprayers that are typically used for pesticide application. She asked the lady working at the motel what was in the sprayers and was told it was for 'spiders' but did not know what the pesticide(s) was. The sprayers were allegedly labeled "day one", "day two and "day three".

Disposition:

A. Anil Megha was cited for two (2) counts of violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application indoors. A civil penalty in the amount of \$500.00 (2 counts x \$250.00 per count) was assessed.

B. Huadong Chen was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application indoors. A civil penalty in the amount of \$250.00 was assessed for this violation.

C. On November 27, 2018, our agency received payment from Huadong Chen for the \$250.00 civil penalty assessed.

E. As of February 8, 2019, Anil Megha had not paid the \$500.00 civil penalty assessed. A second letter was sent as a reminder he still owed OISC.

2018/0600 On June 4, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his garden. He stated he went away for this past weekend and came back to find what he suspects are pesticide exposure symptoms to his garden. He does not know who may have drifted on him.

Disposition: Kurtis Hill was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$100.00 was assessed for this violation. Consideration was given to the fact this was Mr. Hill's first violation of similar nature. Consideration was also given to the fact a restricted use pesticide was involved.

2018/0627 On June 7, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift from a neighbor's beans to his Liberty beans. He was not sure of the application date.

Disposition: Jason Motz was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed to Posey County Co-Op. Consideration was given to the fact this was Mr. Motz's first violation of similar nature. Based on the evidence collected in this investigation, it has been determined that Jason Motz failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0637 On June 12, 2018, Sam Jones spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding an agricultural drift complaint. Mr. Jones stated an herbicide application was made to a neighboring farm field about two to three weeks ago that injured the trees on his property.

Disposition: Keith Scott was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management by not checking the registrant's website within seven (7) days of application and for failure to check a sensitive crop registry. Keith Scott was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management by applying when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops. A civil penalty in the amount of \$100.00 was assessed for this violation. Consideration was given to the fact this was his second violation of similar nature. See case number 2016/0805.
Keith Scott was cited for violation of section 65(7) of the Indiana Pesticide Use and Application Law for failure to maintain the records required by IC 15-16-5 or to make reports and supply information when required or requested by the State Chemist in the course of an investigation or inspection. As a result, Mr. Scott's Private Applicator permit was suspended until such time as he submits all of the required pesticide application information.

Based on the evidence collected in this investigation, it has been determined that Mr. Scott failed to comply with the drift management restrictions on the label for the herbicide Xtendimax. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0662 On June 19, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Case #2018/1009 - For the application made on **June 7, 2018**, Timothy Bult was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding:

1. Exceeding the maximum 24 inch boom height;
2. Failure to check appropriate websites before application.

Based on the evidence collected in this investigation, no violations of the Indiana pesticide laws or regulations were documented. Although off-target movement of the dicamba herbicide was documented, OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0669 On June 20, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans. Mr. Grigsby stated this is the second complaint this year he has against Posey County Co-op. See case number 2018/0627

Disposition: Jason Motz was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law. A civil penalty in the amount of \$500.00 was assessed for this violation. Consideration was given to the fact this was his second violation of similar nature. See case number 2018/0627. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0675 On June 21, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected agricultural pesticide drift from a bean field to his hay. He stated he checked the wind at the time of the application and the wind speed was 10 to 17 miles per hour.

Disposition: Zaccerie Sheldon Slater was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding

drift management. A civil penalty in the amount of \$500.00 was assessed for this violation. Consideration was given to the fact this was his second violation of similar nature. See case number 2017/0985.

2018/0685 On June 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to her beans.

Disposition: Richard Clark was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$1,000.00 was assessed for this violation. Consideration was given to the fact this was his fourth violation for drift management. See case numbers 2015/0930, 20171080 and 20171081.

2018/0690 On June 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Bruce Horner and Ty Breedlove were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed for this violation.

2018/0691 On June 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Brent Floyd was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0696 On June 27, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Todd Hinshaw was cited for two (2) counts of violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$200.00 (2 counts x \$100.00 per count) was assessed.

2018/0712 On June 28, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his Liberty beans. He stated about two to five acres were involved.

Disposition: Chris Geiger was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0721 On the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Glen Bohman was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of a sensitive crop registry before application.

Glen Bohman was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application when the wind is blowing towards a susceptible crop. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0723 On July 2, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Bryan Brost was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0724 On July 3, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Alan Dirksen was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0730 On July 3, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift from beans to his beans.

Disposition: Justin Ramer was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0731 On July 3, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Jesse Kelich and Kirk Retherford were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed for this violation. Based on the evidence collected in this investigation, it has been determined that Kirk Retherford failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to

determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0735 On July 5, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected aerial agricultural pesticide drift to his property.

Disposition: Dustin Starlin was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact this was Mr. Starlin's second violation of similar nature. See case number 2017/1099.

2018/0742 On July 5, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Scott Landrum was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of the registrant's website within seven (7) days of application and checking a sensitive crop registry before application.

Scott Landrum was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management by applying when winds were blowing towards a sensitive crop. A civil penalty in the amount of \$250.00 was assessed for this violation.

2018/0743 On July 6, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Todd Hinshaw was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0752 On July 9, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Steven McCorry was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed to Kova Fertilizer, Inc. for this violation.

2018/0754 On July 9, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans from the bean field across the road.

Disposition: Brandon Bell was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation. Consideration was given to the fact this was his first violation of similar nature. Based on the evidence collected in this investigation, it has been determined that you failed to comply with both the off-target drift restrictions and the drift management restrictions on the label for the herbicide Xtendimax.

2018/0759 On June 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Chad Brown was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management for not leaving a buffer. A civil penalty in the amount of \$100.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0769 On July 11, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Timothy Talbert was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of the registrant's website within seven (7) days of application. Timothy Talbert was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed for this violation. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0776 On July 11, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans from the bean field across the road.

Disposition: James Fields was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Xtendimax. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application.

2018/0780 On July 11, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report aerial agricultural pesticide drift to her and her two children. She said she had clothing that she and her children were wearing that have not been laundered that OISC can analyze with the understanding the clothing would not be returned.

Disposition: Jim Robinson was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$500.00 was assessed to Ag Max Agricultural Helicopter Services. In addition, Mr. Robinson's pesticide applicators license was suspended for one hundred eighty days from receipt of this notice. Consideration was given to the fact this was his second violation of similar nature (see 2017/1040) and there was potential for human harm. Mr. Robinson's license will be reinstated on June 13, 2019.

2018/0784 On July 12, 2018, Lynn Swagger spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a possible dicamba drift to his soybeans. Mr. Swagger stated he first noticed injury to his soybeans approximately two weeks ago.

Disposition: Jacey Paulson was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. AgBest LLC was assessed a civil penalty in the amount of \$250.00. Consideration was given to the fact this was Jacey Paulson's first violation of similar nature.

2018/0793 On August 22, 2018, Barbara Goldblatt spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a possible drift and human exposure. Ms. Goldblatt stated she was outside in her yard when she smelled what she believed to be lawn care chemicals. She stated she was hit in the face with the chemicals before she could get in the house.

Disposition: David Richardson was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the use of personal protective equipment.

David Richardson was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application within 250 feet of a residential area. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact there was potential for human harm.

2018/0804 On July 17, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Walker Place was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation. Although off-target movement of the dicamba herbicide was documented, OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0812 On July 18, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report aerial pesticide agricultural drift to her hay field, livestock, creek, and woods.

Disposition: Jim Robinson was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$500.00 was assessed for this violation. Consideration was given to the fact this was his second violation of similar nature. See case number 2017/1040.

2018/0818 On July 19, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Ed Huelsenback was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0832 On July 23, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Jacob Werner was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation. In addition, his Private Applicator permit and certification were revoked for a period of five (5) years, beginning January 11, 2019.

2018/0833 On July 23, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Garrett Meents was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of a sensitive crop registry and the registrant's website before application.

Garrett Meents was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with both the off-target drift restrictions and the drift management restrictions on the labels for the herbicide Engenia and Abundit Extra.

2018/0840 On July 24, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Bernard Buening and Philip Ebelhar were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$1,000.00 was assessed to Superior Ag Resources. Consideration was given to the fact this was Mr. Ebelhar's second violation and Mr. Buening's third violation of similar nature. See case numbers 2016/0861 and 2017/0667.

2018/0845 On July 24, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report aerial agricultural pesticide drift to his property and person. The complainant stated the helicopter was flying overhead while he was speaking to the Compliance Officer and it was 'very windy'. He also stated he has a shirt he will surrender for analysis with the understanding the shirt will not be returned to him.

Disposition: Andrew Stephen was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift to people. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact there was potential for human harm.

Andrew Stephen was cited for violation of section 65(7) of the Indiana Pesticide Use and Application Law for failure to make reports or supply information {Pesticide Investigation Inquiry (PII) form} when required or requested by the State Chemist in the course of an investigation. Mr. Stephen's certification was indefinitely suspended until such time as he

provided the required information. The PII was ultimately received by OISC Investigator Paul J. Kelley.

2018/0850 On July 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Douglas Stafford was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of appropriate websites.

Douglas Stafford was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding tank mix rates of Roundup Powermax. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0852 On July 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Michael Walker was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0858 On July 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Richard L. Fisher was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0859 On July 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Richard L. Fisher was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0880 On July 23, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Kevin Wood was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0881 On August 2, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Mike Long was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0912 On August 13, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report Turf Pro allegedly applied Daconil Weather Stik to her lawn, a pesticide product not allowed for residential use.

Disposition: Gregory D. Borden was cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 357 IAC 1-5-3, for failure to provide a customer a valid written statement containing the pesticide applied. A civil penalty in the amount of \$100.00 was assessed for this violation.

Gregory D. Borden was cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-2-3, for failure to properly supervise a non-licensed employee. A civil penalty in the amount of \$125.00 was assessed for this violation.

2018/0913 On July 12, 2018, Lynn Swagger spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a possible dicamba drift to his soybeans. Mr. Swagger stated he first noticed injury to his soybeans approximately two weeks ago.

Disposition: Richard Clark was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. Crop Production Services was assessed a civil penalty in the amount of \$1,000.00. Consideration was given to the fact this was Mr. Clark's fourth violation of failure to follow label directions regarding drift management. See case numbers 2015/0930, 2017/1080 and 2017/1081.

2018/0914 On August 13, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Doug Vieke was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0923 On August 23, 2018, Greg Westerhouse spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a dicamba drift complaint.

Disposition: Phil Hunt was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0936 On July 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Nicholas Byrd was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management and non-sanctioned tank mix. A civil penalty in the amount of \$100.00 was assessed for this violation.

2018/0947 On August 31, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected agricultural dicamba pesticide drift to her beans.

Disposition: Kirk Rutherford and Jesse Kelich were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-4-1, for failure to keep all required restricted use pesticide application record elements. A civil penalty in the amount of \$25.00 was assessed for this violation.

Kirk Rutherford and Jesse Kelich were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding spray drift management. A civil penalty in the amount of \$250.00 was assessed to Hartley Grain.

2018/0960 On June 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Chad Brown was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management for not leaving a buffer. A civil penalty in the amount of \$100.00 was assessed for this application in case number 2018/0759.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0961 On June 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Chad Brown was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management for not leaving a buffer. A civil penalty in the amount of \$100.00 was assessed for this application in case number 2018/0759.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/0995 On September 19, 2018, I, Agent Kevin Gibson of the Office of Indiana State Chemist (OISC), conducted a **Worker Protection Standard (WPS)** inspection at Beasley's Orchard in Danville, Indiana.

Disposition: Calvin Beasley was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding agricultural use requirements. A civil penalty in the amount of \$250.00 was assessed to Beasley's Orchard. Consideration was given to the fact there was potential for human harm.

2018/1012 On August 31, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected agricultural dicamba pesticide drift to her beans.

Disposition: Kirk Rutherford and Jesse Kelich were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-4-1, for failure to keep all required restricted use pesticide application record elements. A civil penalty in the amount of \$25.00 was assessed for this violation.

2018/1018 On May 31, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his trees. He stated the drift could have come from one of three different farmers and this is a reoccurring problem. See case summaries 2017/0872, 2017/0828, 2018/0588 and 2018/1019.

Disposition: Certified Supervisor William Durham and Registered Technician Dalton Thompson were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact a restricted use pesticide was involved.

2018/1021 On July 6, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans. He stated his exposure symptoms may have come from multiple farms.

Disposition: Steven J Clark was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of the registrant's website.

Steven J Clark was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

2018/1029 On June 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.

Disposition: Bruce Horner and Ty Breedlove were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed for this violation.

2018/1030 On August 2, 2018, I received information from Ms. Spiros with regard to an application of a Restricted Use Pesticide (RUP) Engenia Herbicide (EPA Reg. #769-345) active ingredient dicamba made near the non-dicamba tolerant soybeans of Mr. James Hawkins. (See case #2018/0804) The information was provided in the form of a Pesticide Investigation Inquiry (PII) as part of the 2018-0804 investigation of off target movement of dicamba.

Disposition: Walker Ag Group was warned for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-4-1, for failure to follow the rule regarding restricted use pesticide application records.

Walker Ag Group was cited for thirteen (13) counts of violation of section 65(10) of the Indiana Pesticide Use and Application Law for using a restricted use pesticide without having an applicator who is licensed or permitted. A civil penalty in the amount of \$1,300.00 (13 counts x \$100.00 per count) was assessed.

CASE SUMMARY

Case #2017/0734

Complainant: Office of Indiana State Chemist (OISC)
175 South University Street
West Lafayette, Indiana 47907-2063
800-893-6637

Respondent: Timothy W. Leensvaart
Aspen Tree & Turf Care
6549 W. 167th Street
Tinley Park, Illinois 60477
708-653-2186

Unlicensed Applicator
Unlicensed Business

Corrected address: 15110 S. 109th Avenue
Orland Park, Illinois 60467

1. On May 4, 2017, the Certification & Licensing section contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report Aspen Tree & Turf Care did not renew their business license.
2. On May 12, 2017, I contacted the Certification & Licensing section and they stated that Mr. Leensvaart was the only applicator that was registered with Aspen Tree & Turf Care and has not responded to the 2017 inquiries from their office. They also stated Mr. Leensvaart had his 3a certification with Illinois and it expired December 31, 2016.
3. On May 12, 2017, I went to the address for the respondent at 6549 W. 167th Street, Tinley Park, Illinois. I knocked on the door and no one answered. I left my business card and notice of inspection paperwork in the front door with a message to contact me as soon as possible.
4. On May 22, 2017, I visited the internet website for Aspen Tree & Turf Care at www.aspentreeandturf.com, in which, the company advertises for “Fertilizer Service”, “Tree Services- pest monitoring visits”, and “Pond Maintenance” in their service area, which includes Indiana. Figures 1-7 are screen shots from the website with the pesticide/fertilizer application advertisement claims noted below.



Figure 1

- Figure 1 statements:
 - *“TREE CARE-Our ISA Certified Arborist can keep pests like the Emerald Ash Borer from killing your trees”*
 - *“LAWN CARE-We use slow release lawn fertilizer that feeds consistently throughout the entire year instead of having a flush of growth and ‘deflating’ after a couple of weeks”*

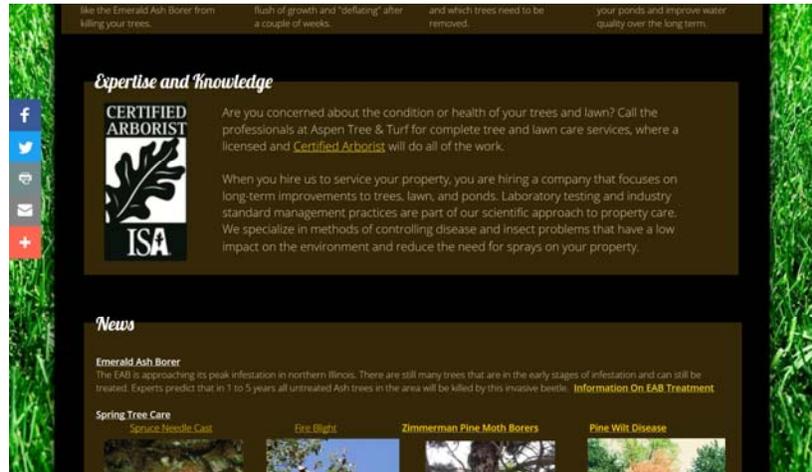


Figure 2

- Figure 2 statement
 - *“We specialize in methods of controlling disease and insect problems that have a low impact on the environment and reduce the need for sprays on your property”*

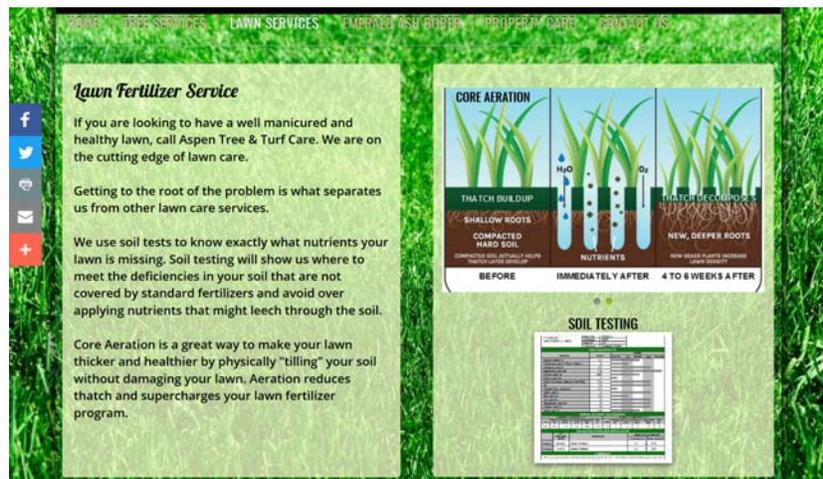


Figure 3

- Figure 3 statements:
 - *“Lawn Fertilizer Service”*
 - *“Soil testing will show us where to meet the deficiencies in your soil that are not covered by standard fertilizers and avoid over applying nutrients that might leech through the soil”*

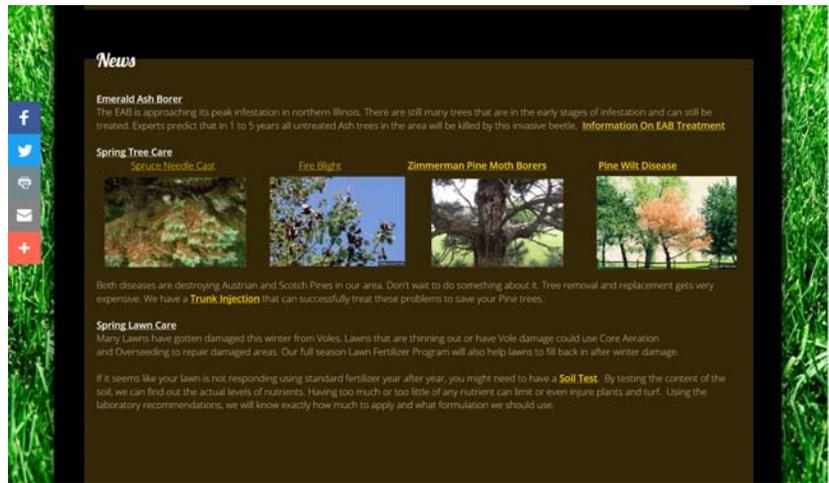


Figure 4

- Figure 4 statements:

- *“We have a Trunk Injection that can successfully treat these problems to save your Pine Trees”*
- *“Our full season Lawn Fertilizer Program will also help lawns to fill back in after winter damage”*
- *“Using the laboratory recommendations, we will know exactly how much to apply and what formulation we should use”*

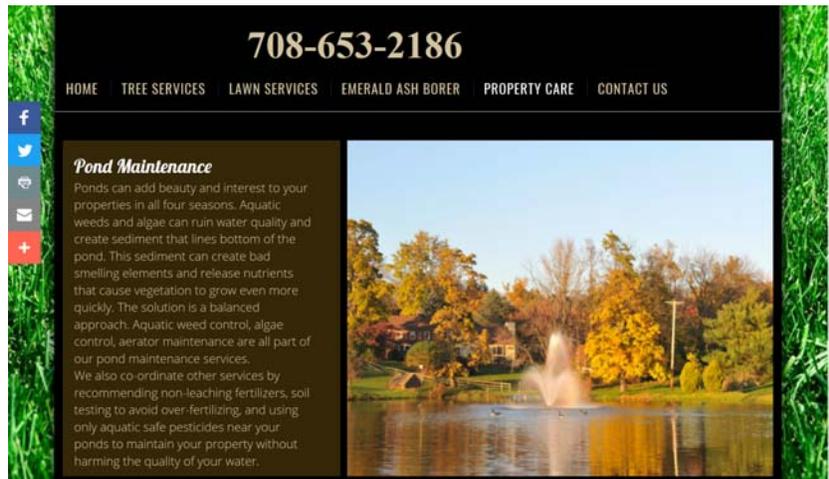


Figure 5

- Figure 5 statement:

“Aquatic weed control, algae control, aerator maintenance are all part of our pond maintenance services. We also co-ordinate other services by recommending non-leaching fertilizers, soil testing to avoid over-fertilizing and using only aquatic safe pesticides near your ponds to maintain your property without harming the quality of your water”

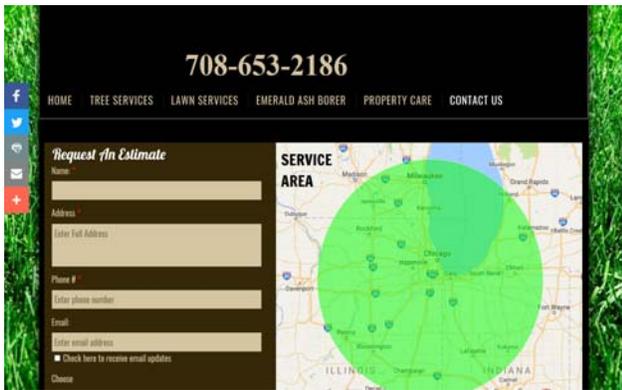


Figure 6

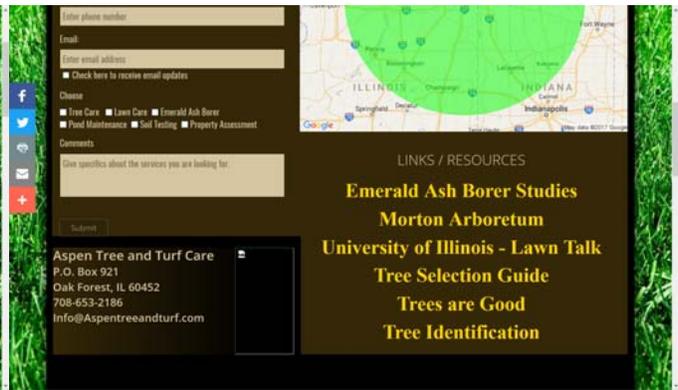


Figure 7

- Figure 6 and 7 are the service areas and contact information shown on the website for Aspen Tree & Turf Care.

5. I also searched the internet for other advertisements made by Aspen Tree & Turf Care and found one profile on <https://www.houzz.com/pro/info46743/aspen-tree-and-turf-care> :

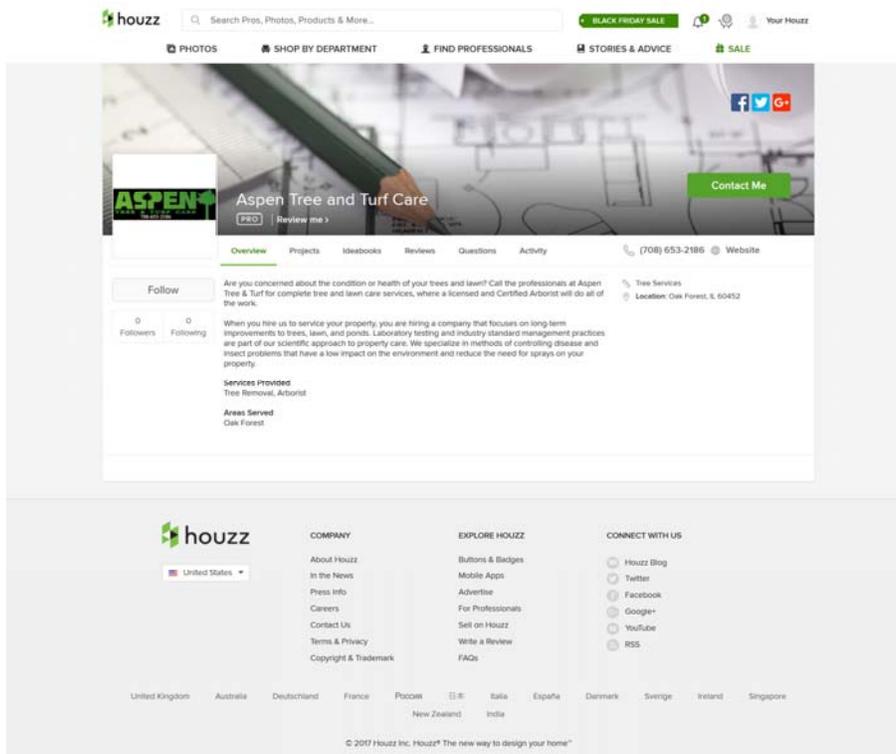


Figure 8

- Figure 8 statements:
“When you hire us to service your property, you are hiring a company that focuses on long term improvements to trees, lawn, and ponds. Laboratory testing and industry standard management practices are part of our scientific approach to property care. We specialize in methods of controlling disease and insect problems that have low impact on the environment and reduce the need for sprays on your property”

6. In addition to the houzz advertisement, there was also Facebook page for Aspen Tree & Turf Care in my search results.

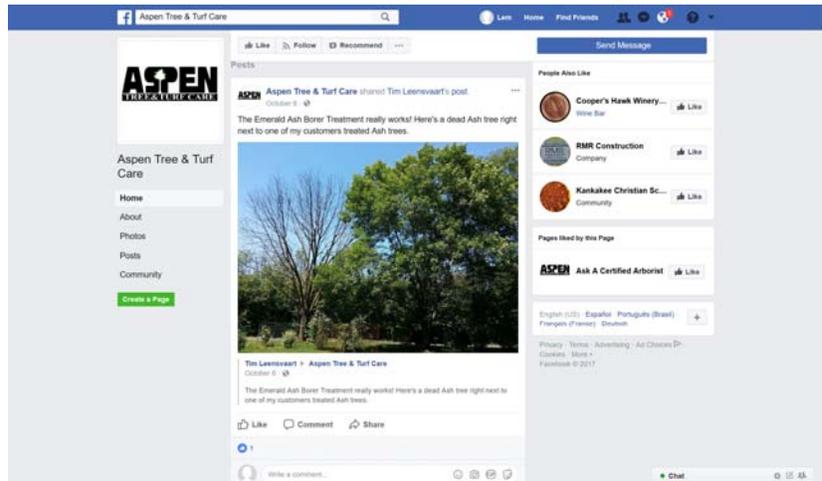


Figure 9

- Figure 9 statements:

“The Emerald Ash Borer Treatment really works! Here’s a dead Ash tree right next to one of my customers treated Ash Trees”

7. On June 27, 2017, I sent a letter and Action Order to Mr. Leensvaart at the address listed above. The certified mail receipt came back to the OISC office with the acceptance date of July 1, 2017. The Action Order specifically stated Mr. Leensvaart was ordered to:

“Stop advertising or making pesticide applications in a category for which you and your business are not currently licensed-Stop all web based, print, etc. advertisements”

8. On May 12, May 22, and November 3 I called the phone number listed above for Mr. Leensvaart and left messages on a voice mail with someone identifying himself as “Tim” and did not receive a return phone call.

9. In this case, it appears there is a violation of the Indiana Pesticide Use and Application Law because of the following:

- Mr. Leensvaart has been engaging and professing to engage in the business of using a pesticide and fertilizer on the property of another for hire without a pesticide business license issued by the State Chemist since May 22, 2017 with his advertisements and photos of work done for his customer.
- Mr. Leensvaart has made numerous statements claiming to control pests and fertilize lawns for hire.
- Mr. Leensvaart has neglected to comply with the Action Order received on July 1, 2017 stating he is to stop advertising for or making pesticide applications. As of today's date, 145 days have passed since Mr. Leensvaart was issued the Action Order.

Melissa D. Rosch
Investigator

Date: November 23, 2017

Disposition:

- A. Timothy W. Leensvaart and Aspen Tree & Turf Care were cited for 145 counts of violation of section 65(9) of the Indiana Pesticide Use and Application Law for professing to be in the business of applying pesticides for hire without having an Indiana pesticide business license. A civil penalty in the amount of \$36,250.00 (145 counts x \$250.00 per count) was assessed.
- B. It should be noted that as of January 12, 2018, all of the above listed websites were still active including the "Service Area" which included northwest Indiana.
- C. On September 11, 2018, Mr. Leensvaart called and stated the service area on the web page was modified to exclude Indiana. He stated he does not work in Indiana except for four or five jobs. I asked him to send me all of the pesticide application invoices he had for Indiana.
- D. Mr. Leensvaart also stated we had the incorrect address for him. He stated his address is 15110 S. 109th Avenue, Orland Park, Illinois 60467.
- E. On September 4, 2018, the OISC Licensing Department notified the Compliance Department they had denied Timothy W. Leensvaart's (Aspen Tree and Turf Care) license application and returned his check #1134 for \$90.00 due to his outstanding civil penalty.
- F. On September 18, 2018, OISC received invoices from Aspen Tree and Turf Care indicating pesticide applications occurred on November 15, 2016 and July 17, 2017.
- G. On October 9, 2018, Timothy W. Leensvaart and Aspen Tree & Turf Care were cited for two (2) counts of violation of section 65(9) of the Indiana Pesticide Use and Application Law for applying pesticides for hire without having an Indiana pesticide business license. The original civil penalty was reduced to \$500.00 (2 counts x \$250.00 per count).



George N. Saxton
Compliance Officer

Draft Date: October 9, 2018
Final Date: February 8, 2019

CASE SUMMARY

Case #2017/1161

Complainant: Jeff Youngblood
9415 W 550 S
Williamsport, Indiana 47993
765-366-4304

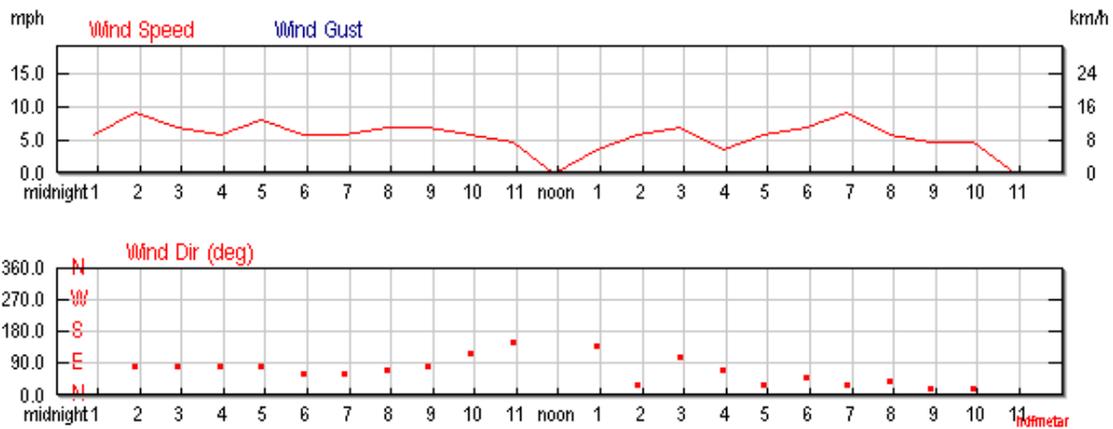
Respondent: Keith Wright
Michael Hunt
10858 W 1150 S
Covington, Indiana 47932
765-585-5380
Private Applicator

1. On July 27, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On August 1, 2017, I met with the complainant to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC. The complainant advised me that he believed his non-dicamba tolerant (DT) beans had been damaged by an application made to a nearby DT soybean field.
3. During my on-site investigation I did the following:
 - a) Looked for and did not observe another potential dicamba application made in the area adjacent to the impacted site.
 - b) Observed and photographed what I believed to be fairly uniform dicamba exposure symptoms as well as some necrosis and necrotic spotting (figure 1) throughout the complainant's non-target, non-DT soybean field with the exception of a line on the north end of the field which appeared to have been protected by a stand of corn where the alleged dicamba application took place (figures 2, 3, 4 and 5) located to the west of the target field. The target field and the complainant's non-target field were separated by a road 58 feet from first row to first row. (Figure 6).
 - c) Collected soybean plant samples from impacted areas of the complainant's non-target soybean field for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
 - d) Collected samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted soybean plants from complainant's non-target soybean field;
 - ii) Normal looking soybean plants from the target soybean field
 - e) Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks (figure 7).
4. On September 28, 2017, I collected written records from the applicator. The written records and statements addressed the below items as follows:
 - a) Application date & time: July 5, 2017; from 2:52pm-3:00pm
 - b) Target field: soybean field to the east of complainant's soybean field;

- c) Pesticides: Engenia (dicamba) EPA Reg. #7969-345;
- d) Application rate: 12 oz. per acre Engenia;
- e) Adjuvants: Class Act Rideon;
- f) Nozzles: (TTI11005)
- g) Boom height: 24 Inches
- h) Ground speed: 14.7 mph
- i) Winds: 3-5 mph from the east;
- j) Applicator: Michael Hunt;
- k) Certified supervisor: not applicable;
- l) Left a 110' untreated buffer next to non-target site: roadway was the buffer
- m) Checked registrant's web site before application: No
- n) Checked Field Watch before application: No
- o) Surveyed application site before application: Yes

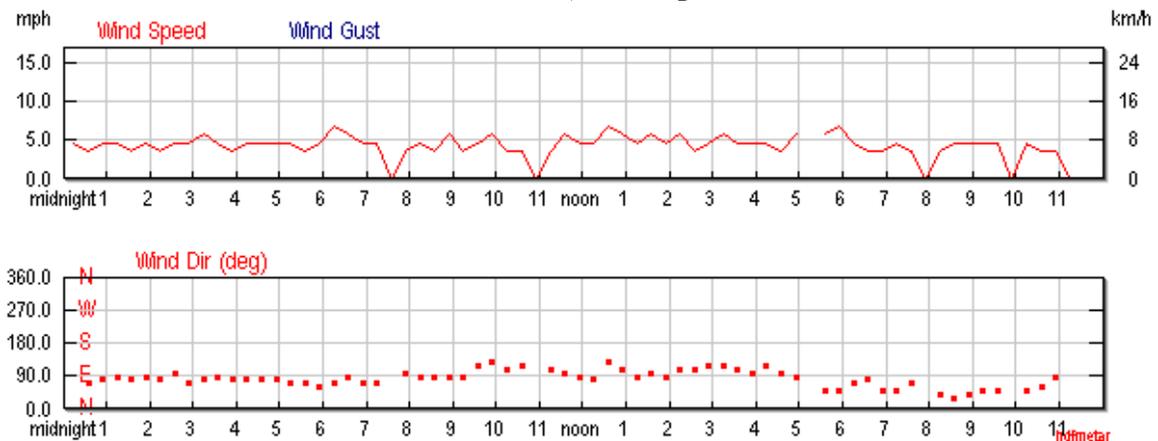
5. I searched wind data from www.weatherunderground.com for zip code 47982 in State Line, Indiana for the reported dates and times of the application. The results of that search indicated that wind speeds and directions during the application were as follows:

July 5, 2017
As recorded at Lafayette 5-7 mph out of the east



Lafayette Wind Data 33 Miles Northeast

July 5, 2017
As recorded at Danville, IL 5 mph out of the east



Danville, IL Wind Data 5 Miles Southwest

6. This would have meant that the wind was blowing in the direction of the complainant's beans.
7. The report from the PPPDL states, "*Cupping/puckering of leaves, parallel venation of leaves, and discolored leaf tips are indicative of injury from dicamba. The necrosis and necrotic spots are injury from Cobra application.*"
8. The complainant had advised he applied Cobra (EPA Reg. #59639-34) active ingredient lactofen to his Roundup Ready beans.
9. The report from the OISC Pesticide Residue Laboratory states:

Case # 2017/1161		Investigator: K. Neal			
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-220667	Youngblood beans 1050W @ CERES	Vegetation	BDL	BDL	BDL
2017-220668	Wright beans 1050W @ CERES	Vegetation	6.80	95.4	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC					
LOQ (ppb)		Vegetation	2	0.4	20
Signature		Date	12/4/17		



Figure One



Figure Two



Figure Three



Figure Four



Figure Five



Figure Six

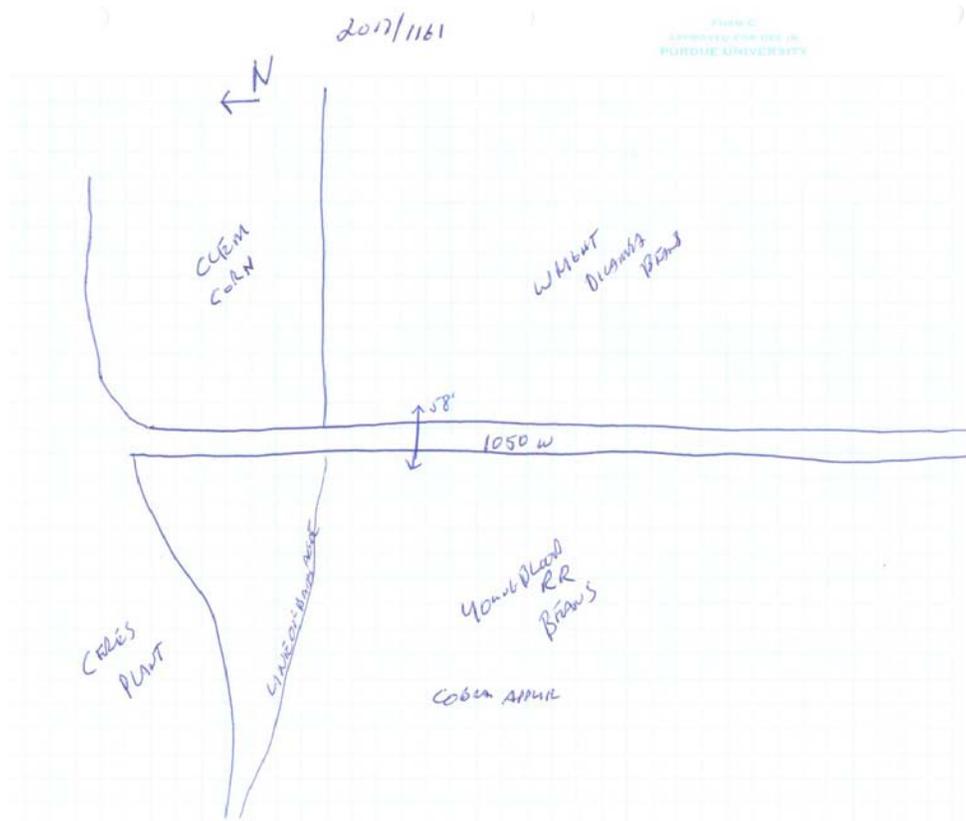
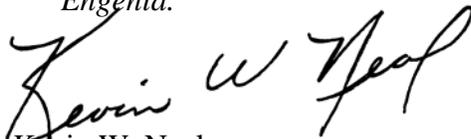


Figure Seven

10. The PPPDL report and the wind direction data suggest that dicamba from the application to the target field moved off-target to the complainant's non-target soybean field. The 27-day period between application and sample collection, make it difficult to determine if the dicamba moved off target from direct particle drift, application during a temperature inversion, or volatility at some point after the application. Regardless, the wind direction data supports that the Engenia was applied when the wind was blowing toward the sensitive non-DT soybeans.

11. The label for Engenia states, "*DO NOT apply when wind is blowing in the direction of neighboring sensitive crops.*" The label also states, "*The applicator must also consult sensitive crop registries to locate nearby sensitive areas where available. In addition "DO NOT tank mix any product with Engenia unless: You check the EPA list of approved products for use with Engenia at www.engeniatankmix.com no more than 7 days before applying Engenia.*"



Kevin W. Neal
Investigator

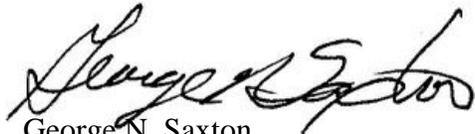
Date: December 15, 2017

Disposition: Michael Hunt was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of the registrant's website and a sensitive crop registry.

Michael Hunt was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application when the wind is blowing toward a susceptible crop. A civil penalty in the amount of \$100.00 was assessed for this violation.

Consideration was given to the fact in a dicamba outreach memo dated February 21, 2017, the Indiana Pesticide Review Board urged OISC to apply the most stringent penalties available for these types of violations.

As of January 28, 2019, Michael Hunt had not paid the civil penalty. The case was forwarded to collections.



George N. Saxton
Compliance Officer

Draft Date: February 5, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2017/1266

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
765-494-1585

Respondent: Tractor Supply, Inc.
Susan Harbaugh Manager
2375 E. Pleasant Street
Noblesville, IN 46060
317-776-1883

Registrant:	Mosquitno, LLC	MAILING ADDRESS
	8235 Melrose Drive	P.O. Box 40455
	Lenexa, KS 66214	Overland Park, Kansas 66204

1. On September 14, 2017, I performed a marketplace inspection at Tractor Supply Inc. located at 2375 E. Pleasant Street in Noblesville, Indiana. I spoke with the manager Susan Harbaugh and informed her of the process of the marketplace inspection.
2. Upon completion of the inspection, I located one (1) unregistered pesticide product that was being offered for sale in the Tractor Supply Inc. store. The product was as follows
 - a. Mosquitno Wristbands
3. I spoke with Mrs. Harbaugh and informed her of the unregistered pesticide product I had located. I informed Mrs. Harbaugh that I would be issuing an Action Order prohibiting further sale or distribution of the unregistered pesticide product. I went on to explain to Mrs. Harbaugh that the Action Order instructs them to remove the unregistered pesticide products from the shelves and place them in storage not to be sold or removed from the store until contacted by OISC by letter.
4. On September 6, 2017, I issued the Action Order placing prohibiting the sale or distribution of the unregistered pesticide product.



Figure 1. Photos of Mosquitno at Tractor Supply Inc.

Garret A. Creason

Garret A. Creason
Investigator

Date: October 2, 2017

Disposition: Mosquitno, LLC was cited for violation of section 57(1) of the Indiana Pesticide Registration Law for distributing a pesticide that was not registered for sale in Indiana. A civil penalty in the amount of \$500.00 was assessed for this violation. Consideration was given to the fact this was their second violation of similar nature. See case number 2016/0815.

As of January 9, 2019, Mosquitno, LLC had not paid the civil penalty. The case was forwarded to collections.

George N. Saxton

George N. Saxton
Compliance Officer

Draft Date: December 1, 2017
Final Date: January 9, 2019

CASE SUMMARY

Case #2018/0011

Complainant: Yvonne Schapson
2101 S. Meridian Street
Greenwood, IN 46143
812-674-1245

Diana Coomer
14072 Bently Circle
Fort Myers, FL 33912
765-271-2496

Respondent: Ryons Pest Solutions
Tim Ryon
Jacob Gerber
P.O. Box 866
Greenfield, IN 46140
317-717-7015

Licensed Business
Certified Applicator
Certified Applicator

1. On October 12, 2017, the Complainant contacted the Office of Indiana State Chemist (OISC) to report problems receiving treatment paperwork from Ryon Pest Solutions for a termite control treatment completed on October 24, 2017. The Compliance Officer of the Office of the Indiana State Chemist (OISC) forwarded a voice message from Yvonne Schapson for follow-up.
2. On October 12, 2017, I contacted Ms. Schapson. Ms. Schapson stated she and her sister, Diana Coomer, were trying to sell their deceased mother's home located at 670 Parkway Street, Whiteland, Indiana (46181). Ms. Schapson stated Ryon Pest Solutions was hired to perform a termite inspection and subsequent treatment of termites and other pests. Ms. Schapson stated Tim Ryon and Jacob Gerber were refusing to present her with treatment records until she paid her bill to Ryons Pest Solutions. Ms. Schapson stated Mr. Ryon threatened to place a lien on the property if he was not paid. Ms. Schapson stated she became concerned about the pest control treatment from Mr. Ryon's forceful actions. Ms. Schapson stated she was given some paperwork related to the termite inspection, ant treatment, and mold treatment, but not the termite treatment records needed for the Realtor for the sale of the property.
3. On October 12, 2017, I spoke with Tim Ryon. I requested all records pertaining to all pest control associated with 670 Parkway Street. Mr. Ryon stated he would not provide them until he was paid. I explained to Mr. Ryon he must provide all required records to OISC. Furthermore, I provided Mr. Ryon with an email copy of a Notice of Inspection (NOI) requesting treatment documentation. Email correspondence was agreed upon because Mr.

Ryon did not want to divulge a current physical address. Further complicating this investigation, Mr. Ryon did not know the names of his clients.

4. In subsequent telephone conversations and emails on October 12, 2017, with Mr. Ryon, he yelled and screamed at me because he felt he was not being paid because of conversations with his client. Mr. Ryon accused me of “conflict of interest” and “overstepping my bounds” over conversations with his client. Mr. Ryon did admit to threatening to place a lien on the property for failure to pay.
5. On October 16, 2017, I went to 670 Parkway Street, Whiteland, Indiana (46181) to investigate. I collected soil samples from the exterior perimeter of the house and made the following observations:
 - A. I observed disturbed soil similar to trenching next to the exterior foundation in some areas. See figure 1 and site diagram.
 - B. Eight (8) foot-long brick porch with two (2) drill holes eighteen (18) inches apart. See figure 2.
 - C. Wood plank walkway on west and north sides of house leading to deck with no indication of being drilled or removal. See figures 3-4.
 - D. Deck on south side of house with no indicators of treatment. See figure 5 and site diagram.
 - E. Drill holes in basement block on north and south walls. See figures 6-7.
 - F. No drill holes in block wall on east side. See figure 8
 - G. No drill holes in basement floor. See figure 9.
 - H. Two (2) inaccessible crawl spaces on west side of basement. See figures 10-11.
 - I. No evidence of live termites, termite carcass, mud tubes, or termite activity found.

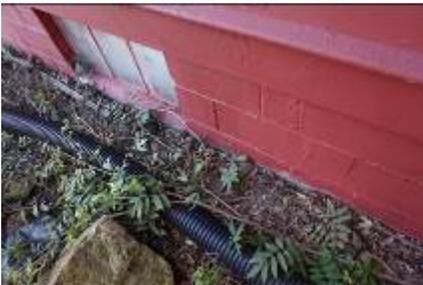


Figure 1-Possible trenching



Figure 2-Drill holes in porch
18” apart



Figure 3-Plank walkway



Figure 4-Walkway to deck



Figure 5-South deck



Figure 6-Drill holes in block

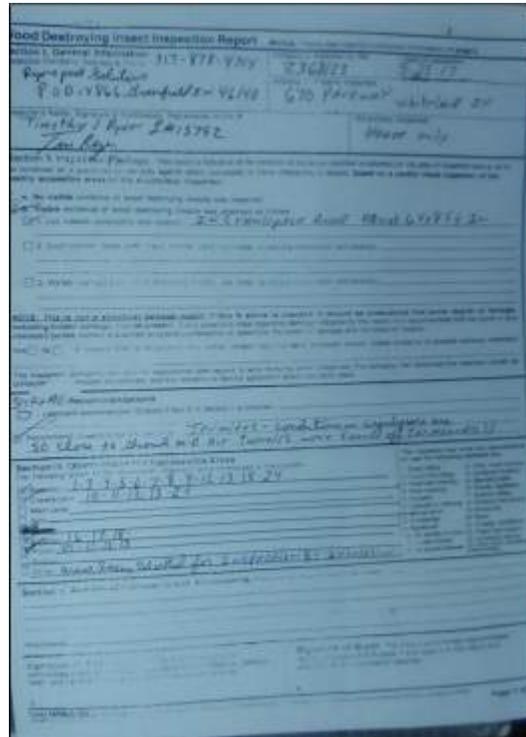
Key		map #
2018502004	Soil sample from yard south side of property	1
2018502005	Soil sample from under window over hang southside of residence	2
2018502006	Soil sample from foundation westside of residence	3
2018502007	Soil sample from foundation northeast side of residence	4
2018502008	Soil sample from foundation under deck on northside of residence	5

Site diagram

6. On October 16, 2017, I received several emails from Mr. Ryon regarding my request for required documentation; however, several of the photograph sent by Mr. Ryon were too blurry to read. Over the next several days of requesting readable documents, Mr. Ryon alleged that Ms. Schapson and Mrs. Coomer (who resides in Florida) broke into his service truck on the day of the application and stole the documentation for the application. I suggested to Mr. Ryon to contact the local law enforcement agency to file a theft complaint.
7. On October 24, 2017, I met with Mr. Ryon and Mr. Gerber at Bob Evans restaurant on Southport Road in Indianapolis, Indiana, to reconcile some of the documentation. Mr. Ryon and Mr. Gerber stated they both participated in the application. Mr. Ryon stated he applied Termidor SC (EPA Reg. #7969-210, active ingredient fipronil). Mr. Gerber stated he could not remember if he treated the deck on the south side or if he treated the plank walkway on west and north of house. Mr. Gerber stated he treated the south crawl but did not go all the way into the crawl. I questioned Mr. Gerber if he had broadcast applied to the crawlspace. Mr. Gerber did not answer the question; just shrugged his shoulders. Mr. Ryon stated he treated the front porch and drilled eight (8) holes, but could not explain why only two (2) drill holes were found. Mr. Ryon stated the north crawl was not treated because it was not accessible. Mr. Ryon and Mr. Gerber could not explain why only some of the block was drilled and none of the basement floor was drilled. Mr. Ryon and Mr. Gerber could not explain why their diagram was initially reported as stolen but was present at the meeting. Mr. Ryon and Mr. Gerber's diagram listed 350 gallons where to be applied to the 670 Parkway Street property. Further discussion with Mr. Ryon regarding the diagram and total amount of volume applied, Mr. Ryon admitted to only applying a total of 100 gallons (~29%) of use dilution at 670 Parkway Street.
8. Additional observations:
 - A. NPMA-33 form provided by Ms. Schapson is different from NPMA-33 form submitted by Mr. Ryon. See attached forms.
 - B. Ms. Schapson's NPMA form she received from Mr. Ryon has "A. No visible" checked than crossed out and "B. Visible" checked.
 - C. In Section IV of the form "Obstruction and Inaccessible Areas" list the crawlspace as, Floor covering, Insulation, NO access or entry, Limited access, No access beneath, Only visual access, and Duct work, plumbing, and/or wiring as obstructions. Mr. Ryon lists 350 gallons of total use dilution should have been applied; however, he admitted to only apply 100 total gallons. My calculations based on my measurements show 331.8 gallons of total use dilution should have been applied based on the label direction.
 - D. No EPA Registration number for the product was listed.
 - E. No Customer Disclosure form presented.
 - F. No percentage of product used.
 - G. Only two (2) drill holes in brick porch eight (8) feet wide. Label list drill holes must be no bigger than 12 inches apart.



Schapson copy



Copy presented to Investigator by Ryon

9. On November 17, 2017, OISC Residue Lab Reported the following:

Case # 2018/0011		Investigator: J. Kelley	
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)
			Fipronil
2018-50-2004	Soil sample from yard south side of property	Soil	BDL
2018-50-2005	Soil sample from under window over hang south side of residence	Soil	501
2018-50-2006	Soil sample from foundation west side of residence	Soil	14500
2018-50-2007	Soil sample from foundation north east side of residence	Soil	48600
2018-50-2008	Soil sample from foundation under deck on north side of residence	Soil	11.7
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits; this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits; this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC			
LOQ = 0.3 ppb			
Signature		Date	11/17/17

Note - Normal parts per million (PPM) of Termidor found in soil, post application, under controlled variables is approximately 50 ppm for a soil bulk density of 1.2.¹ Soil samples

¹ PH.D. research dissertation entitled, "Soil Pesticide Residue Degradation and Soil Sample Management Procedures for Environmental Forensics", Purdue University, June 2003. (Saxton/Engel).

from this lab results indicate fipronil levels were detected at lower amounts with the exception of sample #2018502007 (48.6 ppm):

Sample # 2018502005 (.501 ppm);
Sample #2018502006 (14.5 ppm); and
Sample #2018502008 (0.0117) are all below 50 ppm.

10. Label language for Termidor SC states in part:

“To maximize the potency of Termidor SC, apply the finished dilution in continuous treated zone(s) to prevent termites or other wood-infesting pests from infesting the wood to be protected.”

“All drill holes through the slab must be spaced no wider than 12 inches apart.”

“Interior Perimeter-To treat under the basement floor slab, drill vertically through the slab along the interior perimeter of the foundation.”

“Inaccessible Crawl Space Construction: *For inaccessible interior areas (e.g., areas where there is insufficient clearance between floor joists and ground surfaces to allow operator access), excavate, if possible, and treat according to the instructions for accessible crawl spaces. . .*

- 1. apply to the soil . . . 1.0 to 1.5 gallons . . . of finished dilution per 10 square feet . . .DO NOT broadcast or power spray with high pressure.”*
- 2. drill through the foundation wall or through the floor above and treat the soil adjacent to the foundation . . .”*

“Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil to create continuous treatment zones in the treatment area.”



Paul J. Kelley
Investigator

Date: November 29, 2017

Disposition:

- A. Tim Ryon, Jacob Gerber and Ryon’s Pest Solutions were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding:
 - a. the drilling of treatment holes in a slab no more than twelve (12) inches apart;
 - b. failure to drill or treat under the outside wooden walkway planks;
 - c. failure to drill and/or treat the wooden deck on the south side of the house;
 - d. failure to drill holes in the hollow block on the east side of the house;
 - e. failure to vertically drill and treat under the basement slab; and
 - f. failure to properly treat the two (2) inaccessible crawl spaces.

A civil penalty in the amount of \$250.00 was assessed for this violation.

- B. Tim Ryon, Jacob Gerber and Ryon’s Pest Solutions were cited for violation of section 65(3) of the Indiana Pesticide Use and Application Law for using a known ineffective amount of pesticide by only applying 100 gallons of termiticide use dilution when label directions required over 300 gallons. A civil penalty in the amount of \$250.00 was assessed for this violation.

- C. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-5-2(2) for failure to keep all required for-hire termiticide application records. A civil penalty in the amount of \$50.00 was assessed for this violation. Consideration was given to the fact this was the second offense of similar nature within the past five (5) years. See case number 2014/0366.
- D. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-5-2(5), for failure to follow the rule regarding the issuance of a disclosure form for any label treatment discrepancies. A civil penalty in the amount of \$250.00 was assessed for this violation.
- E. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(7) of the Indiana Pesticide Use and Application Law for refusing to supply information when required or requested by the state chemist in the course of an investigation or inspection. A civil penalty in the amount of \$250.00 was assessed for this violation.
- F. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(8) of the Indiana Pesticide Use and Application Law for making false or fraudulent records, invoices or reports. A civil penalty in the amount of \$250.00 was assessed for this violation.
- G. Tim Ryon, Jacob Gerber and Ryon's Pest Solutions were cited for violation of section 65(14) of the Indiana Pesticide Use and Application Law for making false or misleading statements during or after an inspection concerning any infestation or infection of pests. A civil penalty in the amount of \$250.00 was assessed for this violation.
- H. A total civil penalty for this investigation is \$1,550.00. In addition, the 7b certifications and licenses issued to Tim Ryon, Jacob Gerber and Ryon's Pest Solution were revoked. Consideration was given to the fact less than half (50%) of a directed by-the-label rate of termiticide use dilution was applied.
- I. On February 26, 2018, Tim Ryon called OISC. Mr. Ryon stated that he did not want to appeal the decision by OISC in this matter. He stated he did not put enough chemical in the house in question and did not leave a Disclosure form with the homeowner. At the conclusion of the conversation, it was determined that the civil penalty would be reduced to \$700.00 and Mr. Ryon would be allowed to pay the penalty at \$100.00 per month for seven (7) consecutive months. The license revocation for Mr. Ryon and Mr. Gerber would still be enforced.
- J. On February 4, 2019, OISC received the final civil penalty payment from Mr. Ryon.


George N. Saxton
Compliance Officer

Draft Date: February 28, 2018
Final Date: February 20, 2019

CASE SUMMARY

Case #2018/0076

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
765-494-1585

Respondent: AgriSelect
Luke Snyder
11401 N Green River Road
Evansville, IN 47725
812-402-0240
National Ag Sales Manager

1. On November 13, 2017, I visited AgriSelect on N. Green River Road in Evansville, Indiana after being notified by Inspector Schnur that there was a potential bulk pesticide containment violation. Inspector Schnur advised that there were several 275-gallon totes of liquid pesticides that were not in any kind of secondary containment.
2. When I arrived at the facility, I was met by the Office Manager, Sherry Drew. I informed Mrs. Drew of the reason for my visit and that I needed to look at the storage facility for the bulk pesticides. She then notified Luke Snyder that I was there and he advised that he would be in shortly. Mrs. Drew then took me to the storage warehouse where the bulk pesticides were located.
3. When first entering the storage facility I was looking at the floor and it did appear to have a very slight slope. I also noticed that there was no perimeter curb along the base of the facility providing secondary containment. While walking through the facility, I noticed a basin in the center of the facility with drains in it. The drains however had been sealed with concrete. Mrs. Drew stated that she thought it drained to an underground storage tank just outside the building but she was not sure because they had just moved into the facility a few months prior. Mrs. Drew stated that they decided to fill the drains with concrete because they were unsure of where exactly it led. Near the center basin, the floor had a more defined slope inward towards it.
4. The bulk pesticides being kept in the facility were as follows:
 - a. Parashot; EPA Reg. #83529-27; 16 totes
 - b. Slam 54 Extra; EPA Reg. #80967-5-93033; 104 totes
 - c. Wynca USA Sunphosate; EPA Reg. #87659-3; 51 totes
5. I asked Mrs. Drew if she was able to find out when the totes arrived at the facility and she attempted to look up the information in-house but was not able to find all the information. She stated she would have to contact the main facility in North Carolina to get it. I then issued an Action Order for AgriSelect to provide me the documents that show when the product was received at this facility and provide them to me by 11/15/2017. Mrs. Drew emailed me all the requested documents on 11/15/17.

6. I was speaking with Mr. Snyder on 11/13/17 about the secondary containment of the facility. I told him it looked like the floor did slope and he agreed and stated that he would get someone in in the next few days to take measurements of the slope of the floor and let me know. On 11/15/17, I received an email from Mr. Snyder stating that he had the floor measured with a Topcon Laser Level. The results were as follows:
 - a. "From the South Wall to the Center Drain is approximately 19 feet. The laser indicated a 1" drop and an additional 1" drop within the 2' Drain well."
 - b. "From the North Wall to the Center Drain is approximately 39 feet. The laser indicated a 5/8" drop and an additional 1" drop within the 2' wide drain well."
 - c. "From the East Wall to the middle of the warehouse the laser indicated a 3/4" drop and an additional 1.25" within the drain well."
 - d. "The drop is approximately 5/8 inch and then another 1/2 inch when inside the 2' wide drain concrete trench."
7. On 11/28/17, Mr. Snyder provided me with the remaining measurements and an older site plan of the warehouse. He stated that the warehouse where the pesticides were being kept was approximately 60' wide and 120' long. I gave all of the information to Matt Pearson for evaluation. On 11/30/17, I was able to speak with Matt Pearson about all the measurements and he stated that with the slope and the size of the storage area it would require a perimeter containment in the facility. On 12/1/17, I notified Mr. Snyder that a perimeter containment would need to be installed.
8. On 12/6/17, Inspector Dunn and I went to the AgriSelect facility to look at it with Mr. Snyder. Mr. Snyder had some examples laid out on the floor of the storage facility when we arrived. His plan was to lay 4" concrete block along the interior perimeter of the facility. Along the areas where a forklift would need to get in and out, he would lay 2" block with an asphalt cap that was tapered so the forklift could get over it. We advised him that he would not be able to use asphalt and that concrete is recommended. We then explained to Mr. Snyder how to properly seal the concrete and what approved sealers would be. Mr. Snyder stated that he could have the work completed by 12/13/17. I then issued a second Action Order instructing them to install secondary containment materials into the warehouse as discussed and have it completed by 12/13/17 and to provide me photos by email by that date.
9. On 12/13/14, I received an email from Mr. Snyder stating that the containment had been completed. In the email, he had attached photos of the completed work and the type of sealant that he used.
10. Looking at all the bills of lading for all the bulk pesticides that were on hand at Agriselect, I was able to determine how many totes were out of containment and for how long. The results are as follows:
 - a. Slam 54 Extra
 - i. 15 totes- out of containment 48 days
 - ii. 15 totes- out of containment 33 days
 - iii. 15 totes- out of containment 22 days
 - iv. 30 totes- out of containment 19 days
 - v. 30 totes- out of containment 12 days

- b. Sunphosate
 - i. 16 totes- out of containment 40 days
 - ii. 32 totes- out of containment 39 days
- c. Parashot
 - i. No totes out of containment per the 30 day rule.

11. All supporting documents and photos will be attached to this case. All days calculated for totes being out of containment are with consideration with the 30-day grace containment rule.



Fig. 1. Example of how perimeter would be laid.



Fig. 2) Example of where 2-inch block would be laid.



Fig.3) Completed perimeter wall.



Fig. 4) Completed perimeter wall.


Garret A. Creason
Investigator

Date: December 22, 2017

Disposition:

- A. AgriSelect was cited for forty-eight (48) counts of violation of section 52 of the Indiana Pesticide Registration Law, specifically 355 IAC 5-4-1(a), for storing a bulk storage container outside of secondary containment. A civil penalty in the amount of \$12,000.00 (48 counts x \$250.00 per count) was assessed. However, the proposed civil penalty was reduced to \$4,200.00. Consideration was given to the fact AgriSelect cooperated during the investigation; corrective action was taken; there was a good-faith effort to comply and no restricted use pesticides were involved.

- B. On January 3, 2018, I contacted Luke Snyder regarding the proposed reduction in civil penalty. He returned an email stating he would accept the proposed enforcement. Mr. Snyder was advised the Indiana Pesticide Review Board would have to approve the mitigation since by rule, OISC cannot mitigate for this type of violation.

- C. On March 16, 2018, the Indiana Pesticide Review Board authorized the agreed upon mitigation.



George N. Saxton
Compliance Officer

Draft Date: August 14, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0090

Complainant: Rickie J. Owens
7460 W 1400 N
DeMotte, Indiana 46310
219-476-6750

Respondent: TruGreen
Brian Bohn
9171 Louisiana Street
Merrillville, Indiana 46410
219-756-5296

Certified Business
Certified Applicator

1. On November 17, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report that a couple months ago, he was trimming trees in a housing addition when TruGreen sprayed the lawn with a pesticide where he was working and the pesticide drift sent him to the hospital.
2. On November 28, 2017, I met the complainant Rickie Owens. He stated that on September 14, 2017, he was working in Valparaiso, Indiana trimming trees in a subdivision when he saw a TruGreen applicator spraying an unknown substance nearby where he was working. Mr. Owens stated the applicator was on some kind of a riding device and he asked the applicator to stop spraying, but the applicator refused. Mr. Owens stated that the weather conditions were very foggy. Shortly afterwards, Mr. Owens stated he experienced shortness of breath and trouble breathing. Mr. Owens had a family member drive him to the Porter Regional Hospital. A copy of the medical record is located in the case file.
3. Figure 1 below is Google earth image of the Autumn Trail Neighborhood.

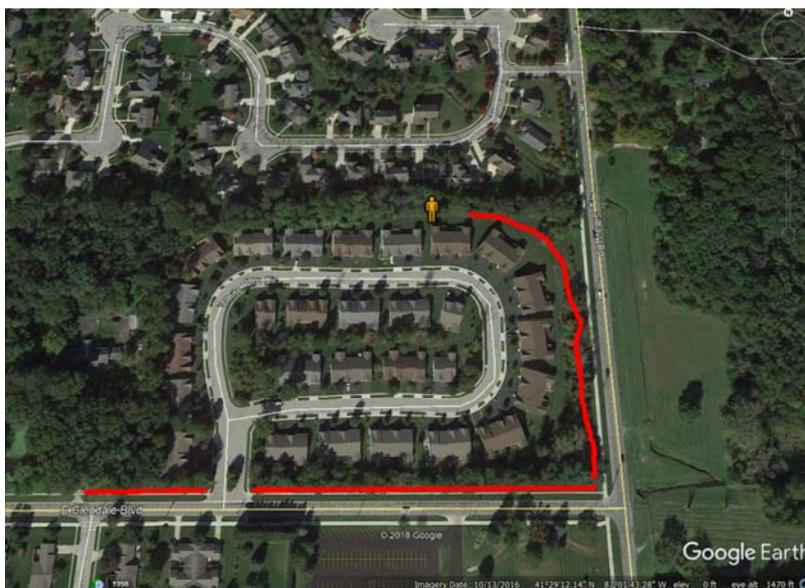


Figure 1
Page 1 of 3

*Figure 1 is a google earth photograph of the Autumn Trail Neighborhood in Valparaiso, Indiana.
 *The red markings are the approximate area where the TruGreen applicator identified he made the herbicide application.
 *The orange person icon is the approximate location of Mr. Owens.

4. On November 28, 2017, I went to TruGreen in Merrillville, Indiana and spoke to the manager Bryan Seddon and applicator Brian Bohn. Mr. Seddon stated this neighborhood is billed and invoiced as a condominium association and therefore there are no leave behind notifications or lawn markers on each individual property or where there was a pesticide application. Mr. Seddon stated the flags are placed intermittently in the neighborhood after a pesticide treatment is done and the association representative will receive the invoice/summary. I asked Mr. Bohn if he checked for temperature inversion and he said he did not know what that was. He also stated he did not read the label before making the application. Mr. Seddon provided the application records for September 14, 2017 which showed the following:

- Applicator: Brian Bohn
- Date: 9/14/17
- Time: 8:28-11:01 am
- Temp: 58.4 degrees
- Wind: 0 MPH East
- Pesticide Products used: **TruPower 3, EPA #228-551 – Active Ingredients Dicamba 3.2 %, 2,4-D 47.7%, MCP-P 7.74%**

5. The weather conditions on September 14, 2017 were :

7:56 AM	59 ° F	59 ° F	100 %	CALM	0 mph	0 mph	29.1 in	0.0 in	0.0 in	Fog
8:56 AM	61 ° F	61 ° F	100 %	CALM	0 mph	0 mph	29.1 in	0.0 in	0.0 in	Fog
9:20 AM	62 ° F	62 ° F	100 %	SE	3 mph	0 mph	29.1 in	0.0 in	0.0 in	Fog
9:48 AM	62 ° F	62 ° F	100 %	CALM	0 mph	0 mph	29.1 in	0.0 in	0.0 in	Fog
9:56 AM	63 ° F	62 ° F	97 %	CALM	0 mph	0 mph	29.1 in	0.0 in	0.0 in	Cloudy
10:56 AM	66 ° F	62 ° F	87 %	CALM	0 mph	0 mph	29.1 in	0.0 in	0.0 in	Cloudy
11:15 AM	69 ° F	63 ° F	81 %	S	5 mph	0 mph	29.1 in	0.0 in	0.0 in	Cloudy

6. Label violations for **TruPower 3, EPA #228-551** are the following:

-Page 3 of the label reads

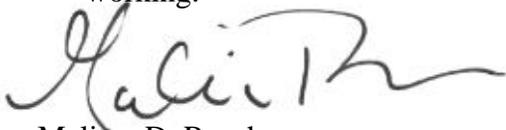
“If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.”

“Do not allow people or pets to enter the treated area until sprays have dried.”

7. There appears to be a violation in this case because:

-The applicator violated the wind and temperature inversion restrictions on the **TruPower 3** product label.

-The applicator was making a pesticide application in the same area where the complainant was working.



Melissa D. Rosch
Investigator

Date: August 15, 2018

Disposition: Brian Bohn was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application into a temperature inversion and applying a pesticide when someone is in the area. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact there was potential for human harm.



George N. Saxton
Compliance Officer

Draft Date: November 2, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0144

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
765-494-1585

Respondent: Wabash Hardware
Brian Howenstine
1351 N. Cass Street
Wabash, IN 46922
260-563-8797
Owner

Registrant: Tree World Plant Care Products, Inc.
1421 S. 11th Street
St. Joseph, MO 64503
604-885-3535

1. On December 14, 2017, I performed a routine marketplace inspection at Wabash Hardware located at 1351 N. Cass Street, Wabash, Indiana. I spoke with the Owner Brian Howenstine and informed him of the process of the marketplace inspection.
2. Upon completion of the inspection, I located one (1) unregistered pesticide product that was being offered for sale in the Wabash Hardware store. I spoke with Sarah Caffery, Pesticide Registration, and she confirmed that the pesticide product was unregistered. The product was as follows:
 - a. Planstkydd Repellent Rabbits and Small Critters, a 25(b)¹ Product.
 - i. 1 lb. and 3 lb. sizes.
3. I spoke with Mr. Howenstine and informed him of the unregistered product I had located. I informed Mr. Howenstine that I would be issuing an Action Order instructing them to remove the unregistered pesticide product from the shelves and place them in storage and that they are not to be sold or removed from the store unless contacted in writing by OISC. I located a 1 lb. container and a 3 lb. bag of the product. Only one of each product was in stock and I collected the 1 lb. size for an evidentiary sample. I asked Mr. Howenstine if he was able to provide me with any information for when the last shipment came to the store and he provided me with an Inventory Log stating that the 1 lb. size came to the store on March 3, 2013. Mr. Howenstine stated that the 3 lb. size would have come at the same time.
4. On December 15, 2017, I delivered the evidentiary sample to the Formulation Lab.

¹ Minimum Risk Pesticide



Fig. 1) Photos of Plantskydd Repellent

Garret A. Creason
Investigator

Date: December 21, 2017

Disposition:

- A. On December 22, 2017, the information was forwarded to the Product Registration section for a label review. On January 23, 2018, the label review was complete and revealed the following:
 - a) “Small critters” is too generic;
 - b) The active ingredient dried blood is not approved for food crop;
 - c) Signal word “Keep Out of Reach of Children” statement is not located prominently on the front panel of the label;
- B. Tree World Plant Care Products, Inc. was cited for violation of section 57(1) of the Indiana Pesticide Registration Law for distributing a pesticide product that was not registered in the state of Indiana. A civil penalty in the amount of \$250.00 was assessed for this violation. However, this civil penalty was held in abeyance provided the pesticide product becomes properly registered within thirty (30) days from receipt of this notice.
- C. Tree World Plant Care Products, Inc. was cited for violation of section 57(5) of the Indiana Pesticide Registration Law for distributing a pesticide product that contained false or misleading statements. A civil penalty in the amount of \$250.00 was assessed for this violation.
- D. As of June 22, 2018, Tree World Plant Care Products Inc. had not properly registered their pesticide product. As a result, the \$250.00 held in abeyance was re-assessed.
- E. On October 12, 2018, Allan Alford of Tree World Plant Care Products, Inc. called and stated they have decided not to register this pesticide product in Indiana.

George N. Saxton
Compliance Officer

Draft Date: October 12, 2018
Final Date: February 22, 2019

CASE SUMMARY

Case #2018/0151

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
765-494-1585

Respondent: Precision Chemical LLC
Fred Shurtz
1888 W. Shelton Road
Boonville, IN 47601
812-858-2431

President

Registrant: Browne Laboratories
2001 Crutchfield Street
Chattanooga, TN 37406
423-696-7777

Water Science Technologies LLC
1701 Vanderbilt Road
Birmingham, AL 35234
205-332-3444

1. On November 6, 2017, I performed a routine marketplace inspection at Precision Chemical LLC located at 1888 W. Shelton Road, Boonville, Indiana. I spoke with the company President, Fred Shurtz and informed him of the process of the marketplace inspection.
2. During the inspection I observed a 275-gallon tote, M-92L, sitting on a large shelf in the warehouse. I looked around the warehouse and did not notice any form of secondary containment on the perimeter of the warehouse. I asked if there was secondary containment and was informed that the only form of secondary containment was the mixing area/pad located inside the warehouse. I then went and looked at the mixing pad and saw that it had perimeter drain surrounding the entire pad. I was informed that the drain drains into an underground storage tank that then pumps material into an aboveground storage tank just outside the warehouse. I informed Mr. Shurtz that bulk materials have to be in secondary containment and that the tote should be moved onto the pad to make it compliant for secondary containment. The tote of M-92L was moved immediately while I was still at the facility. Mr. Shurtz stated that they were unaware of this requirement.
3. I was provided with a Bill of Lading stating that the M-92L product was delivered to the facility on 8-22-2017. Taking the bulk pesticide 30-day containment rule into consideration the tote of M-92L would have been out of containment on 9-22-2017. With the M-92L tote being moved into secondary containment on 11-6-2017. That puts the tote of M-92L out of containment for 46 days.

4. Case summary 2018/0126 should be referenced for further information regarding this inspection. The bill of lading will be attached to this case.

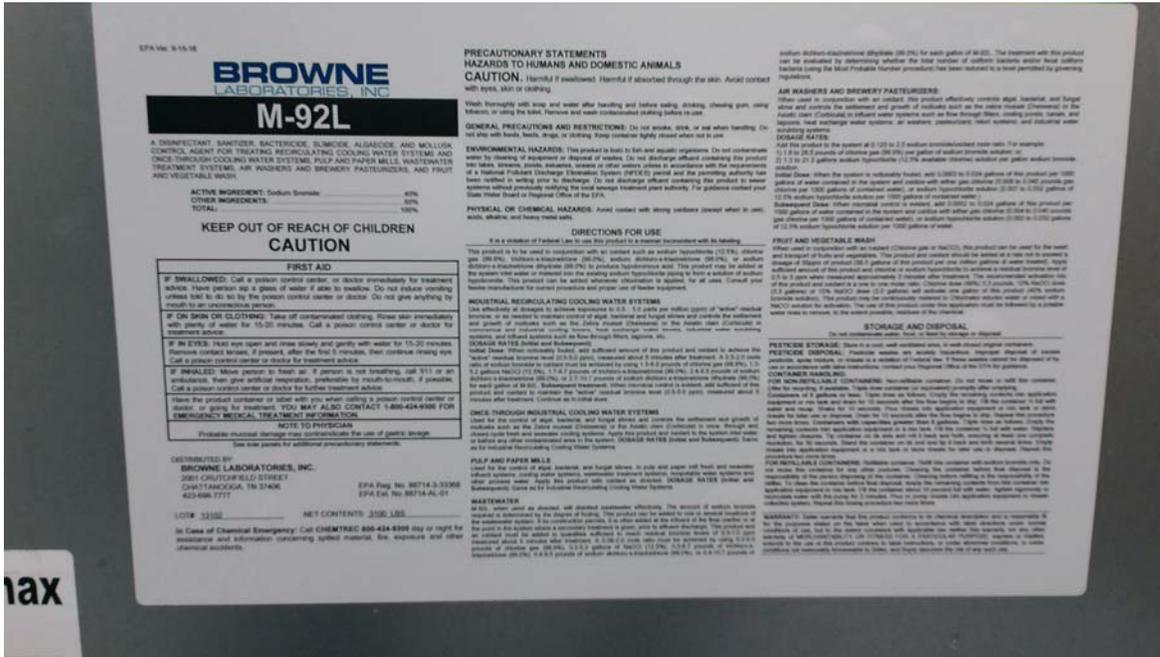


Fig. 1. M-92L Label

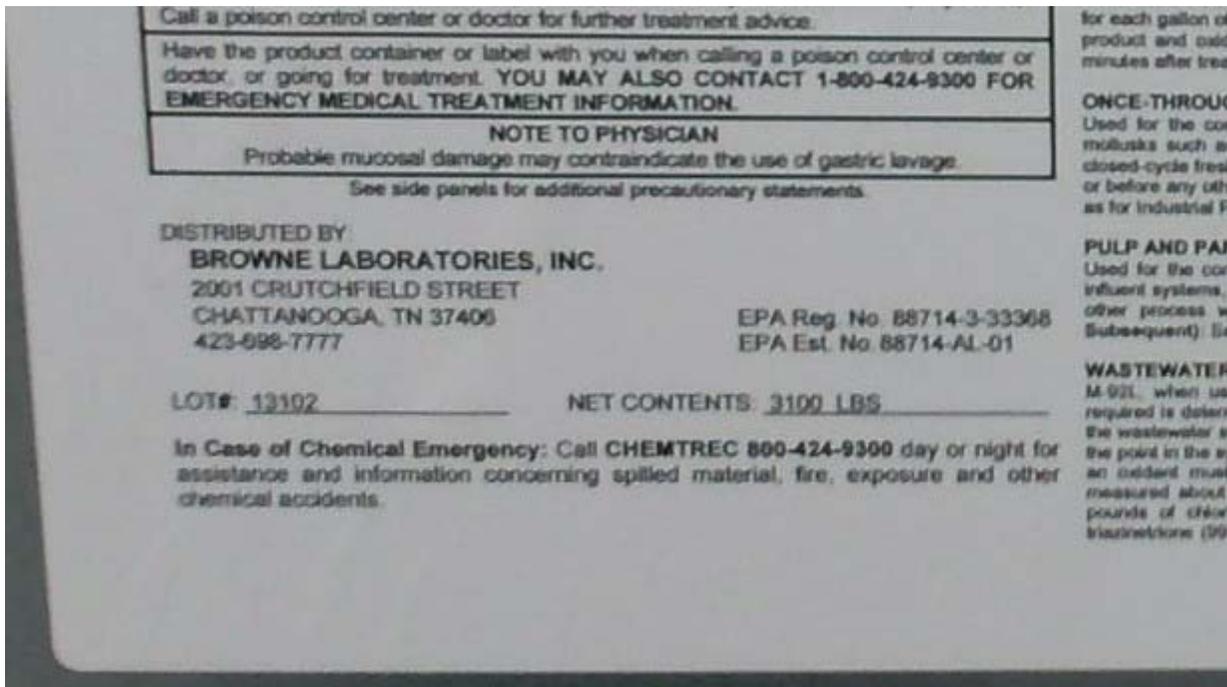


Fig. 2. Label of M-92L



Fig. 3. M-92L Tote at Precision Chemical LLC.

Garret A. Creason
Investigator

Date: January 25, 2017

Disposition:

- A. Precision Chemical LLC was cited for forty-six (46) counts of violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 5-4-1a), for storing a bulk storage container outside of secondary containment. A civil penalty in the amount of \$11,500.00 (46 counts x \$250.00 per count) was assessed. Consideration was given to the fact Precision Chemical LLC cooperated during the inspection; corrective action was taken; there were no previous violations of similar nature; a good-faith effort to comply and no restricted use pesticides were involved. However, by rule, OISC may not mitigate violations of this rule.
- B. On January 30, 2018, I contacted Fred Shurtz of Precision Chemical LLC and advised him of the proposed enforcement. He requested the civil penalty be reduced and stated he has taken steps to ensure there would be no future violations of similar nature. I advised him I was not allowed by rule to mitigate but I would take his request to the Indiana Pesticide Review Board. Due to the mitigation reasons listed above, the proposed civil penalty would be reduced to \$1,725.00 if approved by the Board.
- C. On March 16, 2018, the Indiana Pesticide Review Board accepted the mitigation of this civil penalty.

George N. Saxton
Compliance Officer

Draft Date: September 20, 2018
Final Date: January 22, 2019

CASE SUMMARY

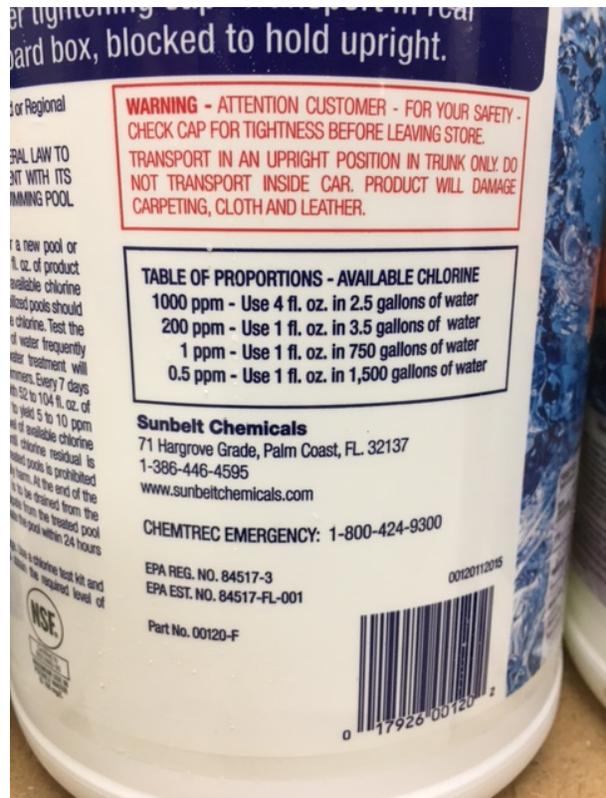
Case #2018/0177

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
765-494-1585

Respondent: True Value
Joe Hollingsworth
25 Boone Village Shopping Center
Zionsville, IN 46077
317-873-5255
Store Manager

Registrant: Sunbelt Chemicals
71 Hargrove Grade
Palm Coast, FL 32137
1-386-446-4595

1. On February 14, 2018, I performed a routine marketplace inspection at True Value located at 25 Boone Village Shopping Center in Zionsville, IN. I spoke with the Store Manager Joe Hollingsworth and informed him of the process of the marketplace inspection.
2. Upon completion of the inspection, I located one (1) unregistered pesticide product that was being offered for sale in the True Value store. I spoke with Sarah Caffery, Pesticide Registration, and she confirmed that the pesticide product was unregistered. The product was as follows:
 - a. Smart Advanced Pool Systems Liquid Chlorinizer
 - i. EPA Reg. #84517-3
3. I spoke with Mr. Hollingsworth and informed him of the unregistered product I had located. I informed Mr. Hollingsworth that I would be issuing an Action Order instructing them to remove the unregistered pesticide product from the shelves and place them in storage and that they are not to be sold or removed from the store unless contacted in writing by OISC. I also informed him that I would be retaining an evidentiary sample of the product for my case. I asked Mr. Hollingsworth if he was able to provide me with any information for when the last shipment came to the store and he was able to print off a stocking form that stated it was last received on 8/2/17.
4. On February 14, 2018, I delivered the evidentiary sample to the Formulation Lab.





Office of
INDIANA STATE CHEMIST AND SEED COMMISSIONER

Protecting Indiana's Agriculture and Environment - Feed, Fertilizer, Pesticide and Seed

Robert D. Waltz, Ph.D.
State Chemist &
Seed Commissioner

Purdue University • 175 South University Street
West Lafayette, IN 47907-2063
Telephone (765) 494-1492 • Facsimile (765) 494-4331
www.oisc.purdue.edu

PESTICIDE FORMULATION REPORT

INVESTIGATOR GARRET CREASON	DATE SAMPLED 4/30/2018	COUNTY	INDIANA REG. NO.	SAMPLE NO. 18-3-0329 6	
CASE NO. 20180177	CONTAINER/SAMPLE SIZE /	NO. SAMPLED	TYPE		REPORT DATE 05/04/2018
PRODUCT NAME SMART ADVANCE POOL SYSTEM LIQUID CHLORINIZER					
LOT NUMBER		EPA REG. NO. 84517 - 3		EPA EST. NO.	
MANUFACTURER OR REGISTRANT			DISTRIBUTOR		
DEALER			SAMPLED IN POSSESSION OF AKARD TRUE VALUE HARDWARE 25 BOONE VILLAGE SHOPPING CENTER ZIONSVILLE IN 46077		
SHIPMENT DATA					
DATE	QUANTITY	INVOICE NO.	NO. ON HAND		
ACTIVE INGREDIENT			%GUARANTEE	%FOUND	
SODIUM HYPOCHLORITE			10	6.5 *	
REMARKS *ADULTERATED - THIS PRODUCT FAILS TO MEET ITS COMPONENT GUARANTEE(S). WE CALL THE REGISTRANT'S ATTENTION TO THE REPORTED VIOLATION. WE REQUEST THE REGISTRANT TO ADVISE THIS OFFICE IN WRITING OF COURSE OF CORRECTIVE ACTION BY 05/25/2018. WE REQUEST THE DEALER TO REMOVE THE MATERIAL FROM SALE PENDING CORRECTIVE ACTION BY THE REGISTRANT. THIS LABORATORY WILL RETAIN A SUBSAMPLE FOR 30 DAYS.					


Garret A. Creason
Investigator

Date: September 4, 2018

Disposition: Sunbelt Chemicals was cited for two (2) counts of violation of section 57(1) of the Indiana Pesticide Registration Law for distributing a pesticide product that was not registered in Indiana. A civil penalty in the amount of \$500.00 (2 counts x \$250.00 per count) was assessed. However, this civil penalty will be held in abeyance and not assessed provided Sunbelt Chemicals properly registers this pesticide product within thirty (30) days from receipt of this notice.

Sunbelt Chemicals was cited for two (2) counts (2017 & 2018) of violation of section 57(5) of the Indiana Pesticide Registration Law for distributing a pesticide product that was adulterated in that Smart Advanced Pool Systems Liquid Chlorinizer had a label guarantee for 10% sodium hypochlorite when in fact the laboratory analysis revealed only 6.5%. A civil penalty in the amount of \$500.00 (2 counts x \$250.00 per count) was assessed for this violation.

The Registration Section notified Compliance that the pesticide product was renewed on April 19, 2018.


George N. Saxton
Compliance Officer

Draft Date: November 6, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0192

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
765-494-1585

Respondent: Langdon Brothers Seed
Troy Millspaugh
3590 S 100 E
Hartford City, IN 47348
765-396-3618
Sales Agronomist

1. On January 26, 2018, I performed a routine bulk pesticide container containment inspection at Langdon Brothers Seed in Hartford City, Indiana. I spoke with sales agronomist Troy Millspaugh and informed him of what I needed to inspect. Mr. Millspaugh stated that all they had on the property were 270-gallon portable refillable containers (PRC) of herbicides.
2. Mr. Millspaugh showed me to the building where the PRC's were stored. While looking at the facility, I noticed there was no perimeter wall and no sloped floor. I asked Mr. Millspaugh if there was any kind of secondary containment and he confirmed there was not. I asked if the PRC's had been in the building for more than 30 days and he stated that he thought that at least two had been there for more than 30 days. In the storage area, there were four PRC's. Only three PRC's had any product in them, one was empty. The products in the storage area were:
 - a. Weedmaster, EPA Reg. #71368-34 Delivered 9/12/2017
 - b. Buccaneer Plus, EPA Reg. #55467-9 Delivered 9/23/2017
 - c. Mad Dog Plus, EPA Reg. #34704-890 Delivered 1/11/2018
3. Mr. Millspaugh provided me with the shipping information for all the products. I informed Mr. Millspaugh of the bulk pesticide containment rules and informed him that the building needed to be compliant with the containment rule. I issued an Action Order to Langdon Bros. Seed requiring them to install secondary containment into the facility for the bulk pesticides or remove the bulk containers from the facility and have completed by 2/9/2018.
4. On January 30, 2018, I was informed by Mr. Millspaugh that the PRC's had been removed from the facility and he also provided me with photos of the facility with the PRC's removed.

5. With the 30-day containment rule grace period taken into consideration, the Weedmaster PRC was out of containment for 106 days. The Buccaneer Plus was out of containment for 99 days. The Mad Dog Plus was not out of containment at any time per the 30-day rule.



Fig. 1. Example of perimeter wall without containment



Fig. 2. No containment curb at door.

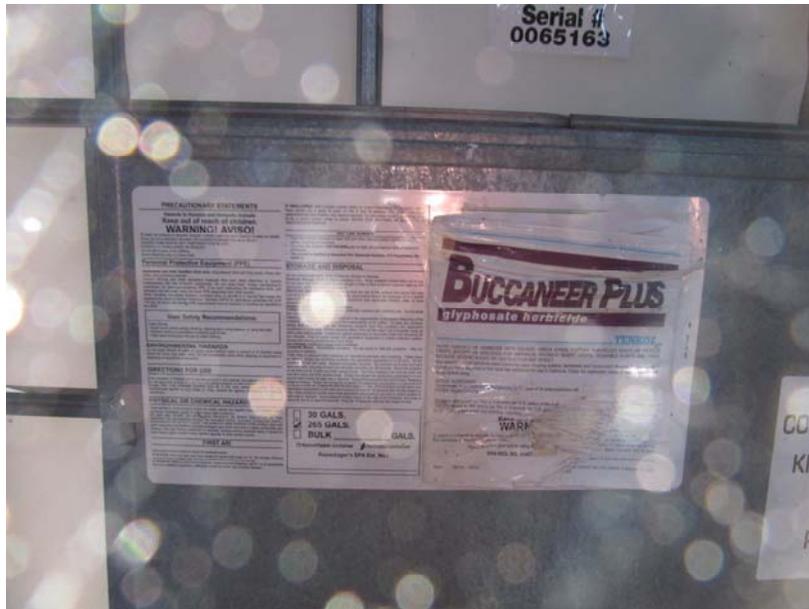




Photo of PRC's removed from facility provided by Mr. Millspaugh

Garret A. Creason
Investigator

Date: February 20, 2018

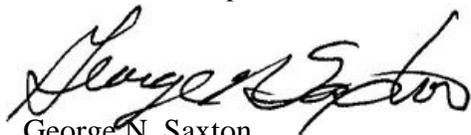
Disposition:

- A.** Langdon Bros. Seed was cited for one hundred six counts of violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 5-4-1(a), for storing bulk pesticide storage container(s) outside of secondary containment. A civil penalty in the amount of \$26,500.00 (106 counts x \$250.00 per count) was assessed. By rule, this type of violation may not be mitigated by OISC according to the Indiana Pesticide Review Board (IPRB).

- B.** On May 30, 2018, Gary Langdon called and requested mitigation on the civil penalty. He stated he was in the process of hiring a contractor to construct secondary containment and assured me this would not happen again. He stated the secondary containment would be built no later than August 15, 2018. As a result, it was agreed upon by Mr. Landgon and myself that the proposed civil penalty would be reduced to \$11,925.00. Consideration was given to the fact Landgon Bros. Seed cooperated during the investigation; corrective action was taken and no restricted use pesticides were involved. In addition, another

\$5,000.00 would be held in abeyance and not assessed provided Langdon Brothers Seed commits no further violations of similar nature for a period of five (5) years, beginning January 11, 2019. Mr. Langdon was again advised that this mitigation had to meet with the approval of the IPRB. The remaining balance of \$6,925.00 of the civil penalty would be paid.

- C. On June 14, 2018, the IPRB approved the requested mitigation.
- D. On August 8, 2018, Gary Langdon sent an email to OISC requesting an extension on building secondary containment. An extension was granted until November 15, 2018, with the understanding no further containment violations would be committed.
- E. On October 24, 2018, Mr. Langdon sent an email stating, *“After Patricia Dunn visited our facility and we reviewed the rules and considered our options we decided to not build a containment building at this time. The \$90,000 it was going to take to do it right and cover all the things required for now and the future would be too much of a burden for our company unless our sales increase dramatically. We have decided to follow the 30 day rule on shuttles and we’ve alerted our supplier we cannot take delivery until we are ready to use product. We appreciate your staff working with us on visits and emails to better explain the rules and help to keep us in compliance.”*



George N. Saxton
Compliance Officer

Draft Date: October 24, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0240

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
765-494-1585

Respondent: Big R Stores
Allen Engel
2100 Peace Tree Village
Rochester, IN 46975
574-223-2447
Store Manager

Registrant: Murphy's Naturals Inc.
1053 E. Whitaker Mill Road, #115
Raleigh, NC 27604
888-314-5109

1. On March 12, 2018, I performed a routine marketplace inspection at Big R located at 2100 Peace Tree Village Rochester, Indiana. I spoke with the Store Manager Allen Engel and informed him of the process of the marketplace inspection.
2. Upon completion of the inspection, I located two (2) unregistered pesticide products that were being offered for sale in the Big R store. I spoke with Sarah Caffery, Pesticide Registration, and she confirmed that the pesticide products were unregistered. The products were as follows:
 - a. Murphy's Mosquito Sticks, 25(b)¹ product.
 - b. Murphy's Mosquito Candle, 25(b) product.
3. I spoke with Mr. Engel and informed him of the unregistered pesticide products I had located. I informed Mr. Engel that I would be issuing an Action Order instructing them to remove the unregistered pesticide product from the shelves and place them in storage and that they are not to be sold or removed from the store unless contacted in writing by OISC. I also informed him that I would be retaining an evidentiary sample of the product for my case. I asked Mr. Engel if he was able to provide me with any information for when the last shipment came to the store. Mr. Engel was able to show me inventory sheets for the products. Murphy's Mosquito Sticks and Mosquito Candles both arrived at the Big R Store on July 11, 2016.
4. On March 15, 2018, I delivered the evidentiary samples to the Formulation Lab.

¹ Minimum Risk Pesticide



Murphy's Mosquito Candle



Murphy's Mosquito Sticks

Garret A. Creason
 Garret A. Creason
 Investigator

Date: March 19, 2018

Disposition:

- A. On March 26, 2018, this information was forwarded to the Registration Section for label review.

- B. On August 9, 2018, the label review for the candle² was complete and revealed:
 - a. Palm wax is not an EPA approved ingredient;
 - b. The label is missing the full address of the registrant;
 - c. “flying insects” is too broad of a statement;
 - d. Candles are not usually made of Deet since Deet is a topical repellent.

- C. Murphy’s Naturals Inc. was cited for violation of section 57(1) of the Indiana Pesticide Registration Law for distributing an unregistered pesticide product (Murphy’s Mosquito Candle) into Indiana. A civil penalty in the amount of \$500.00 was assessed for this violation.

- D. Murphy’s Naturals Inc. was cited for violation of section 57(5) of the Indiana Pesticide Registration Law for distributing into Indiana a pesticide product whose label was false or misleading. A civil penalty in the amount of \$500.00 was assessed for this violation.

- E. Consideration was given to the fact this was Murphy’s Naturals Inc.’s second violation of similar nature. See case number 2017/1102.


George N. Saxton
Compliance Officer

Draft Date: September 24, 2018
Final Date: January 9, 2019

² Issues with the mosquito sticks was addressed through case numbers 2017/1102 and 2018/532.

CASE SUMMARY

Case #2018/0261

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
765-494-1585

Respondent: Ace Hardware
Scott Howser
785 W. McClain Street
Scottsburg, IN 47170
812-752-2991

Owner/Co-Owner

Registrant: Weiser Group LLC
128 McCarrell Lane
Zelienople, PA 16063
724-452-6535

NEW ADDRESS PER POSTAL SVC. 1/22/2019:

107 Veka Drive
Fombell, PA 16123-1423

1. On March 20, 2018, I performed a routine marketplace inspection at Ace Hardware located at 785 W McClain St. Scottsburg, IN. I spoke with the Owner Scott Howser and informed him of the process of the marketplace inspection.
2. Upon completion of the inspection, I located two (2) unregistered pesticide products that were being offered for sale in the Ace Hardware store. I spoke with Sarah Caffrey, Pesticide Registration, and she confirmed that the pesticide products were unregistered. The products are as follows:
 - a. Animal Repellent Granules, a 25(b)¹ product.
 - b. Mouse and Rat Repellent Granules, a 25(b) product.
3. I spoke with Mr. Howser and informed him of the unregistered product I had located. I informed Mr. Howser that I would be issuing an Action Order instructing them to remove the remaining five containers of Animal Repellent and 10 containers of Mouse and Rat Repellent from the shelves and place them in storage and that they are not to be sold or removed from the store unless contacted in writing by OISC. I also informed him that I would be retaining an evidentiary sample of the products for my case. I asked Mr. Howser if he was able to provide me with any information for when the last shipment came to the store and he stated he was not able to look up that information.
4. On March 21, 2018, I delivered the evidentiary sample to the Formulation Lab.

¹ Minimum Risk Pesticide



Garret A. Creason
 Garret A. Creason
 Investigator

Date: March 27, 2018

Disposition:

- A. On March 27, 2018, the information was forwarded to the Registration Section for label review.
- B. On March 27, 2018, the label review revealed the following:

For Natures Defense Animal Repellent

- a. The word 'organic' was listed in the active ingredients;

For Natures Defense Mouse and Rat Repellent

- a. The word 'organic' was listed in the active ingredients;

C. Weiser Group LLC was cited for two (2) counts of violation of section 57(1) of the Indiana Pesticide Registration Law for distribution of unregistered pesticide products. A civil penalty in the amount of \$500.00 (2 counts x \$250.00 per count) was assessed for this violation. However, this civil penalty was held in abeyance provided Weiser Group LLC properly registers these two pesticide products within thirty (30) days from receipt of this notice.

D. Weiser Group LLC was cited for two (2) counts of violation of section 57(5) of the Indiana Pesticide Registration Law for distributing pesticide products that were misbranded. A civil penalty in the amount of \$500.00 (2 counts x \$250.00 per count) was assessed.


George N. Saxton
Compliance Officer

Draft Date: June 27, 2018
Final Date: February 27, 2019

CASE SUMMARY

Case #2018/0430

Complainant: Steve Allen
1444 S. 300 E.
Peru, Indiana 46970
765-244-1818

Respondent: Eldon Herschberger
McGrawsville Feed and Grain Company
9502 S. 300 E.
Amboy, Indiana 46911
765-395-7744

Licensed Applicator
Licensed Business

1. On May 3, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his property that occurred on May 2, 2018.
2. On May 9, 2018, I met with the complainant, Steve Allen. Mr. Allen told me a pesticide application was made to the field west of his residence. He believed it caused some damage to his blackberry plants, his trees and his wife's beehive. I checked several of the trees, the blackberries and other vegetation on the complainant's property for herbicide exposure symptoms. I observed some leaf cupping and strapping on the tree and plant leaves. (see photos below)



3. I obtained vegetation samples for submission to the Purdue Plant and Pest Diagnostic Lab (PPDL) for analysis. I also placed the following environmental samples in Mylar bags for submission to the OISC Residue Lab (see diagram below):

- 2018561506 control sample tree leaves
- 2018561507 control samples grass
- 2018561508 composite tree leaves
- 2018561509 composite grass

- 2018561510 blackberry leaves
- 2018561511 vegetation respondent field
- 2018561512 soil respondent field
- 2018561513 control swab roundup shed
- 2018561514 control swab 2, 4-D shed
- 2018561515 control swab roundup vegetation
- 2018561516 control swab 2, 4-D vegetation
- 2018561517 swab roundup vegetation
- 2018561518 swab 2, 4-D vegetation
- 2018561519 swab roundup bee hive
- 2018561520 swab 2, 4-D bee hive



- I contacted the manager of McGrawsville Feed and Grain Company, Weldon Mast. I advised him of the complaint. He told me they made a pesticide application to the field west of the complainant's property on May 2, 2018. He also said the application was made by Eldon Herschberger. He agreed to complete a Pesticide Investigation Inquiry (PII) for me for the application to the field in question.
- I received the PII from McGrawsville Feed and Grain Company. According to the PII, licensed applicator Eldon Herschberger made a pesticide application of **Roundup Powermax** (EPA #524-549; active ingredient; glyphosate) and **AgriStar 2, 4-D LV6** (EPA #42750-20; active ingredient: 2, 4-D) on May 2, 2018 between 3:30pm and 7:00pm. He recorded the weather from "Weather Underground" with the wind blowing out of the south to southwest at 21-24 miles per hour and gusting up to 29 miles per hour toward the complainant's property.

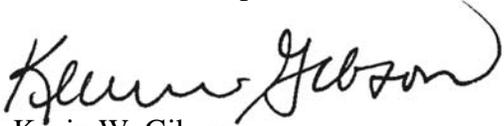
6. I received the following information from PPDL, “*Twisted/curled leaves and petioles are indicative of injury from a growth regulator herbicide like 2, 4-D. There was no evidence of significant disease or insect injury on samples*”.

7. I received the following analysis results from OISC Residue Lab:

Case # 2018/0430			Investigator: K. Gibson		
Sample #	Sample Description	Sample Matrix	Amount Found (ng/swab or ppb)		
			2,4-D	Glyphosate	AMPA
2018-56-1506	Control sample tree leaves	Vegetation	226	284	BDL
2018-56-1507	Control sample grass	Vegetation	65.2	BDL	BDL
2018-56-1508	Composite tree leaves	Vegetation	603	551	BDL
2018-56-1509	Composite grass	Vegetation	99.7	BQL	BDL
2018-56-1510	Blackberry leaves	Vegetation	220	59.2	BDL
2018-56-1511	Vegetation respondent field	Vegetation	13300	12300	142
2018-56-1512	Soil respondent field	Soil	Not tested	Not tested	Not tested
2018-56-1513	Control swab roundup shed	Swab	Not tested	BDL	BDL
2018-56-1514	Control swab 2, 4-D shed	Swab	6.11	Not tested	Not tested
2018-56-1515	Control swab roundup vegetation	Swab	Not tested	BDL	BDL
2018-56-1516	Control swab 2,4-D vegetation	Swab	16.3	Not tested	Not tested
2018-56-1517	Swab roundup vegetation	Swab	Not tested	BQL	BDL
2018-56-1518	Swab 2,4-D vegetation	Swab	BDL	Not tested	Not tested
2018-56-1519	Swab roundup bee hive	Swab	Not tested	BDL	BDL
2018-56-1520	Swab 2,4-D bee hive	Swab	BDL	Not tested	Not tested
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC					
LOQ (ppb)	Vegetation		3	25	125
LOQ (ng/swab)	Swab		1	50	50
Signature			Date	06/28/18	

8. The label for **Roundup Powermax** reads in part, “*Avoid contact of this herbicide with foliage, green stems, exposed non-woody roots or fruit of crops, desirable plants and trees except as directed for use on roundup ready crops, as severe plant injury or destruction could result*”. The label for **AgriStar 2, 4-D LV6** reads in part, “*Do not apply at wind speeds greater than 15 miles per hour. Only apply this product if the wind favors on-target deposition and are not sensitive areas*”.

9. After reviewing all available information, Mr. Herschberger is in violation of the **Roundup Powermax** label when he allowed it to drift onto the complainant’s plants and trees. He was also in violation of the **AgriStar 2, 4-D LV6** label when he applied it in winds speeds greater than 15 miles per hour.


 Kevin W. Gibson
 Investigator

Date: October 2, 2018

Disposition: Eldon Herschberger was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed to McGrawsville Feed and Grain Company. Consideration was given to the fact there were egregious wind speeds blowing towards a sensitive area.



George N. Saxton
Compliance Officer

Draft Date: November 27, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0437

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
765-494-1585

Respondent: Solutions Pest and Lawn
2739 Pasadena Blvd.
Pasadena TX 77502
800-479-6583

Registrant: Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507
281-892-2500

1. On May 1, 2018, Agent Kelley performed a routine virtual marketplace inspection at Solutions Pest and Lawn online store.
2. Agent Kelley ordered one (1) 30lb. bag of Taurus G Fipronil Granules, a restricted use pesticide. Agent Kelley took screenshots of all the web pages associated with ordering this product. The Product was shipped via Fedex. The product that was delivered to Agent Kelly was:
 - a. Quali-Pro Fipronil 0.0143 G Broadcast Insecticide, Restricted Use Pesticide, EPA Reg. #53883-272.
3. Quali-Pro Fipronil and Taurus G are accepted alternate brand names for CSI Fip Pro, which is an EPA registered pesticide; however, it is not registered in Indiana. I confirmed with Sarah Caffery, pesticide registration, that this pesticide product is unregistered in Indiana.
4. On May 10, 2018, I issued an Action Order to Solutions Pest and Lawn instructing them to not ship or sell this product to any customers in the State of Indiana until notified in writing by OISC. I sent the action order to Zach Colander, CEO, at Zach@solutionsstores.com Mr. Colander responded and stated that he received the Action Order.
5. I asked Mr. Colander if he could provide me with information on how many times this product has been sold into Indiana from his company. He emailed me a list of the total sales of the product and this was the only order for this product that had shipped into Indiana.
6. All supplemental information for this case, including order information, website data, and email correspondence will be attached to this case file.

7. On May 4, 2018, Agent Kelley delivered the evidentiary sample to the Formulation Lab.



Garret A. Creason
Investigator

Date: May 18, 2018

Disposition:

- A. Solutions Pest and Lawn was cited for violation of section 57(1) for distributing an unregistered pesticide into Indiana. A civil penalty in the amount of \$250.00 was assessed for this violation. However, this civil penalty was held in abeyance and will not be assessed provided Solutions Pest and Lawn properly registers the product within thirty (30) days from receipt of this notice.
- B. Solutions Pest and Lawn was cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 357 IAC 1-3-3, for distributing a restricted use pesticide into Indiana without having an Indiana dealer permit. A civil penalty in the amount of \$250.00 was assessed for this violation.
- C. As of September 17, 2018, Solutions Pest and Lawn had not properly registered Quali-Pro Fipronil 0.0143 G Broadcast Insecticide in the state of Indiana. Therefore, the original penalty for violation of section 57(1) was reinstated.
- D. The total amount of civil penalty assessed for this investigation is \$500.00.

George N. Saxton
Compliance Officer

Draft Date: September 17, 2018
Final Date: January 9, 2019

CASE SUMMARY

Case #2018/0446

Complainant: Steve Westerfield
3387 Elizabeths Way
Seymour, IN 47274
812-528-4637

Respondent: Brian Metz
Premier Ag
6905 N 400 E
Seymour, IN 47274
812-216-4617

Certified Applicator

1. On May 10, 2018, Steve Westerfield spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a possible pesticide drift. Mr. Westerfield stated a farm field west of his property was sprayed approximately one week ago when it was windy. Mr. Westerfield noticed today that ornamentals on his property now appear to be injured as a result of the application.
2. On May 11, 2018, I went to the complainant's home to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC.
3. During my on-site investigation I did the following:
 - a) Looked for and determined that there were not several pesticide applications that may have affected the complainant's property.
 - b) Observed and photographed what I believed to be symptoms from exposure to some sort of growth regulating herbicide throughout the complainant's property (figures 1, 2 and 3) located to the east of the target field. The target field and the complainant's property were separated by forty-five (45) feet. (figure 4)
 - c) Collected vegetation samples from impacted areas of the complainant's property for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
 - d) Collected vegetation samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted vegetation from complainant's property
 - ii) Vegetation from target field
 - e) Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks (figure 5)
4. On May 11, 2018, I collected written records from the applicator Mr. Metz. The written records and statements addressed the below items as follows:
 - a) Application date & time: May 4, 2018; from 3:00pm to 5:00pm
 - b) Target field: field to the west of complainant's property;
 - c) Pesticides: Atrazine 4L (atrazine) EPA Reg. #1381-158; Shredder (2,4-D) EPA Reg. #1381-250; Cornerstone (glyphosate) EPA Reg. #1381-241

- d) Nozzles: DR-10
- e) Boom height: 18-24 Hawkeye Boom Command
- f) Ground speed: 16 mph
- g) Winds: 7-11 mph out of the southwest;
- h) Applicator: Brian Metz;

5. I searched wind data from www.weatherunderground.com for zip code 47274 in Seymour, IN for the reported date and time of the application. The results of that search indicated that wind speed and direction during the application were as follows:

May 25, 2018

As recorded at Monroe County, IN 9-18 mph gusting 18-26 out of the west northwest

3:06 PM	77 ° F	60 ° F	56 %	WNW	15 mph	21 mph
3:21 PM	78 ° F	59 ° F	52 %	W	14 mph	22 mph
3:30 PM	79 ° F	59 ° F	50 %	WNW	14 mph	23 mph
3:45 PM	78 ° F	58 ° F	50 %	WNW	18 mph	26 mph
3:53 PM	78 ° F	58 ° F	50 %	WNW	10 mph	25 mph
4:53 PM	76 ° F	59 ° F	56 %	NW	9 mph	18 mph

Monroe County Wind Data 30 Miles Northeast

- 6. The wind would have been blowing in the direction of the complainants property at the time of the application.
- 7. Documentation submitted by Mr. Metz via LocalConditions.com for Seymour, IN indicated the wind speed and direction at the time of the application to be 9-15 mph gusting 15-21 mph out of the west northwest.

5/11/2018

Seymour, IN Past Weather for Last 30 days - LocalConditions.com

Time (EDT)	Temp. (°F)	Humidity (%)	Dew Point (°F)	Barometer (inHG)	Wind Speed (mph)	Wind Direction	Wind Gust (mph)	1hr. Precip / Rain Total (in.)	Snow Depth
9:47 PM	62.6	72.42	53.6	30.05	6	n	-	-	-
8:45 PM	66.2	59.76	51.8	30.02	7	nw	-	-	-
6:47 PM	71.6	56.7	55.4	30	10	nw	-	-	-
5:48 PM	73.4	56.05	57.2	29.97	9	wnw	15	-	-
3:45 PM	69.8	68.61	59	29.97	14	ws	21	-	-
2:50 PM	75.2	53.62	57.2	29.96	15	ws	20	-	-
1:45 PM	77	50.52	57.2	29.94	14	ws	20	-	-
12:45 PM	75.2	53.62	57.2	29.95	16	ws	22	-	-
11:45 AM	73.4	56.95	57.2	29.95	16	ws	-	-	-
10:45 AM	73.4	60.25	59	29.95	18	sw	28	-	-
9:45 AM	71.6	64.54	59	29.94	20	sw	28	-	-

Thu, May 3rd 2018

Wed, May 2nd 2018

Tue, May 1st 2018

Mon, Apr 30th 2018

Sun, Apr 29th 2018

Sat, Apr 28th 2018

Fri, Apr 27th 2018

Thu, Apr 26th 2018

Wed, Apr 25th 2018

Tue, Apr 24th 2018

Mon, Apr 23rd 2018

8. The report from the PPPDL states, *“Twisted petioles and curled leaves are indicative of injury from a growth regulator like 2,4-D. One sample had chlorosis and necrosis on the leaf margins and interveinal areas, which can be indicative of injury from a photosynthesis inhibitor like atrazine.”*
9. The report from the OISC Pesticide Residue Laboratory states:

Case #	2018/0446		Investigator			K. Neal							
Sample #	Sample Description	Amount of Analyte (ppb)											
		Matrix	2, 4-D	Atrazine	Glyphosate	AMPA							
2018-22-1007	Target field veg	Vegetation	35900	93400	23280	151							
2018-22-1008	Maple veg SW corner house	Vegetation	712	3080	165	BDL							
2018-22-1009	Flower crab veg NE of house	Vegetation	397	696	BQL	BDL							
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC													
LOQ (ppb)	Vegetation		3	3	25	25							
<table border="1"> <tr> <td>Signature</td> <td colspan="3"></td> <td>Date</td> <td colspan="2">7/2/18</td> </tr> </table>							Signature				Date	7/2/18	
Signature				Date	7/2/18								

10. The label for Atrazine 4L states, *“Avoid using near adjacent desirable plants or in greenhouses, or injury may occur.”*
11. The label for Cornerstone states, *“Avoid herbicide contact with foliage, green stems, exposed non-woody roots or fruit of crops, desirable plants and trees because severe injury or destruction may result.”*
12. The label for Shredder states, *“Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for non-target species, non-target crops) within 250 feet downwind.”*



Figure One



Figure Two



Figure Three



Figure Four

- BB- BURNING BUSH
- FC- FLOWERING CORYMBUS
- M- MAPLE
- PT- PINK TONGUE
- RB- RED BUD
- ### - TRAIN TRACKS

2018/0446

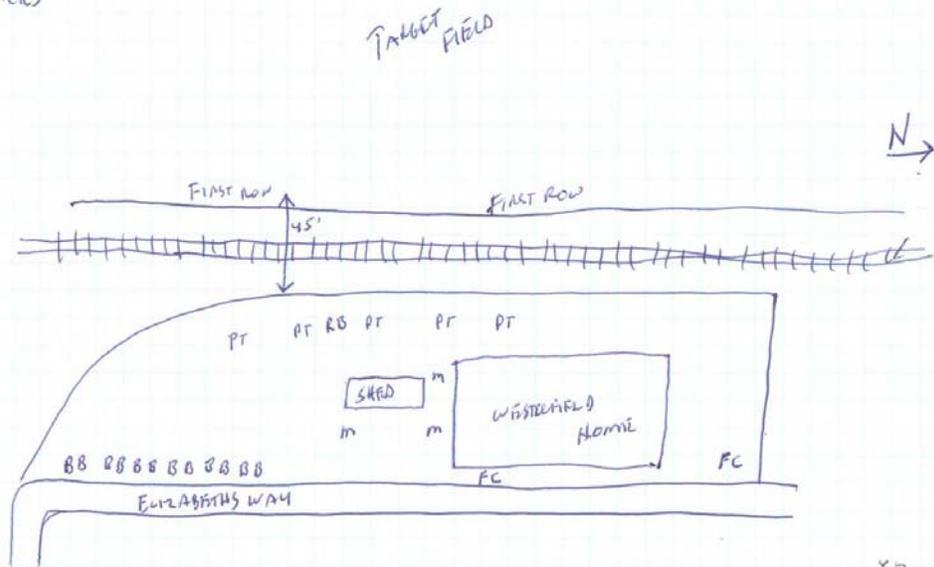
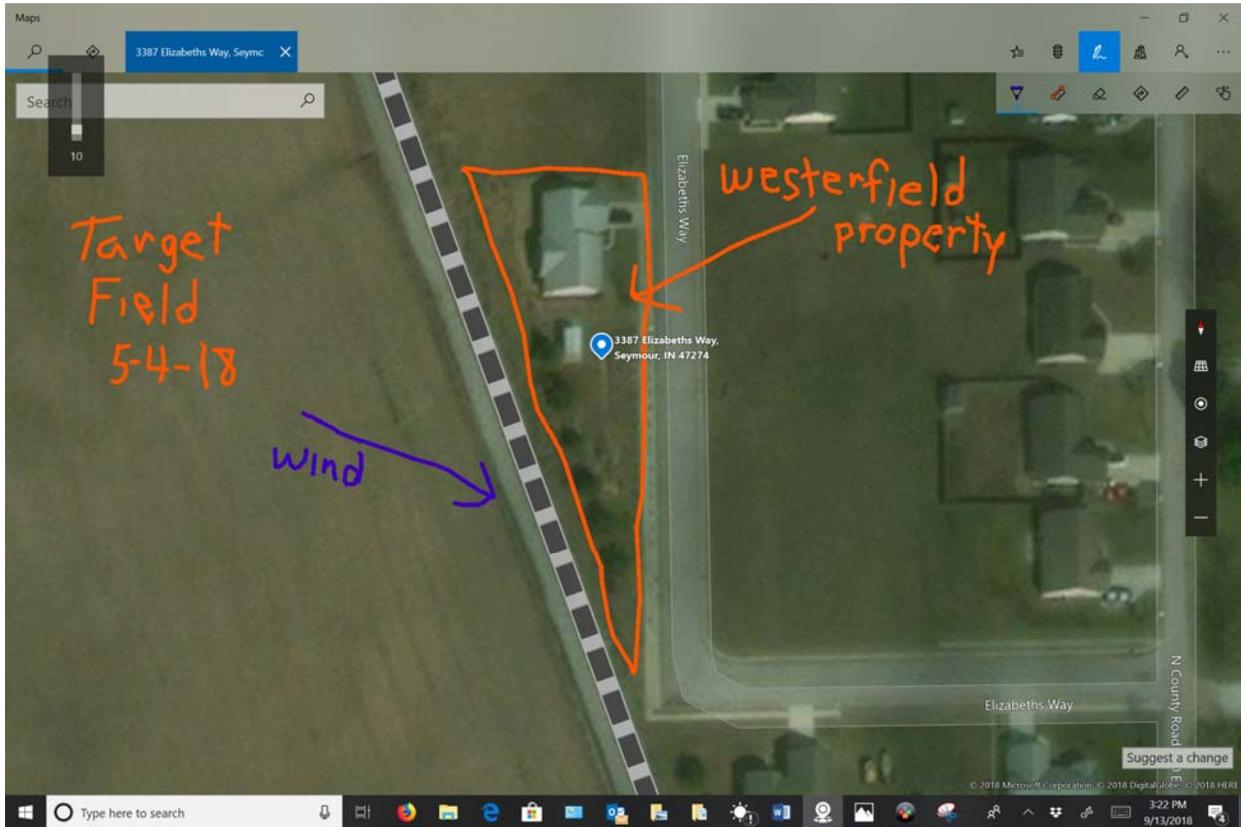


Figure Five



Kevin W Neal

Kevin W. Neal
Investigator

Date: September 13, 2018

Disposition: Brian Metz was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact this was his first violation of similar nature. Consideration was also given to the fact a restricted use pesticide was involved.

George N. Saxton

George N. Saxton
Compliance Officer

Draft Date: November 1, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0491

Complainant: Frank & Linda Sullivan
3080 E 1000 N
Greenfield, IN 46140
317-403-9874

Respondent: Jason Reichenbach
5331 E SR 234
Greenfield, IN 46140
317-326-5331

Private applicator

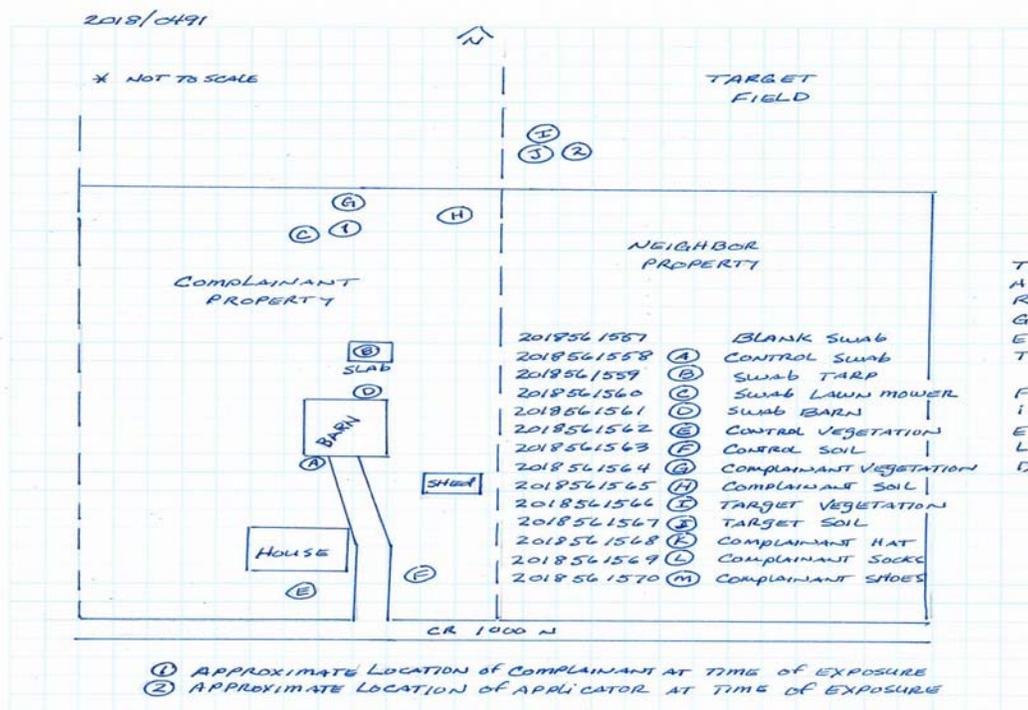
1. On May 18, 2018, Lori Sullivan spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding an agricultural drift complaint. Ms. Sullivan stated she was calling for her elderly parents. Ms. Sullivan stated her parent's pasture and her dad were drifted on by an application made to a field north of their property. Ms. Sullivan believes the field is farmed by Jason Reichenbaugh.
2. On May 22, 2018, I met with the complainant's father Frank Sullivan. Mr. Sullivan told me he was mowing his field behind his home on his riding lawn mower. As he was heading north, he felt a spray mist in his face from farm equipment in the field northeast of the complainant's field. He said it took his breath away. He explained he began coughing and his throat was sore.
3. I checked the complainant's field. (See photo below). I could find no herbicide exposure symptoms. I also checked the respondent's field. I found some weed varieties, which appeared to have herbicide exposure symptoms of necrosis. I collected ragweed samples for submission to the Purdue Plant and Pest Diagnostic Lab (PPDL).



Complainant's field looking northeast toward respondent field

4. I placed the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis (see diagram below):

2018561557	blank swab	2018561558	control swab
2018561559	swab tarp	2018561560	swab lawn mower
2018561561	swab barn	2018561562	control vegetation
2018561563	control soil	2018561564	complainant vegetation
2018561565	complainant soil	2018561566	target vegetation
2018561567	target soil	2018561568	complainant hat
2018561569	complainant socks	2018561570	complainant shoes



5. I learned from the complainant that the pesticide applicator was Jason Reichenbach. I contacted Mr. Reichenbach. I explained the complaint. Mr. Reichenbach told me he was unaware anyone was in the neighboring field when he made his application. He agreed to send me his pesticide application information.
6. I received the following information from PPDL: “Submitted weed is giant ragweed (*Ambrosia Trifida*). Necrotic /bronzing symptoms on leaves could be from atrazine or topramezone application.”
7. I received the Pesticide Investigation Information (PII) from the respondent. According to the PII, Mr. Reichenbach is a licensed Private Applicator. He made an application of **Armezon Pro** (EPA #7969-372; active ingredient: dimethanamide, topramezone) and **Atrazine 90 WDG** (EPA #34704-622; active ingredient: atrazine) on May 17, 2018, between 11:10am and 11:35am. He recorded the wind speed above 5 miles per hour (mph) (no wind direction).
8. I obtained the following weather information from www.wunderground.com for May 17, 2018: Greenfield, Indiana weather station recorded the wind at 12 mph with 21 mph wind gust blowing from the northeast in a southwesterly direction toward the complainant’s property and toward the complainant who was in his field at the time of the application.

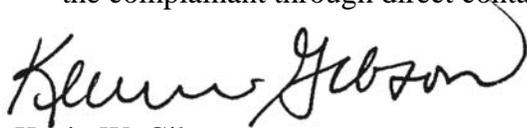
9. I received the following lab results from the OISC Residue Lab:

Case # 2018/0491			Investigator: K. Gibson		
Sample #	Sample Description	Sample Matrix	Amount Found (ng/swab, or ng/clothing, or ppb)		
			Atrazine	Dimethenamid-p	Metolachlor
2018-56-1557	Blank swab	Swab	BDL	BDL	BDL
2018-56-1558	Control swab barn	Swab	6.40	1.15	25.3
2018-56-1559	Tarp swab	Swab	2.36	1.13	3.59
2018-56-1560	Lawn mower swab	Swab	18.1	41.0	68.7
2018-56-1561	Swab barn	Swab	2.41	1.08	9.07
2018-56-1562	Control vegetation complainant property	Vegetation	Not tested	Not tested	Not tested
2018-56-1563	Control soil complainant property	Soil	BQL	BQL	Not tested
2018-56-1564	Vegetation complainant property	Vegetation	Not tested	Not tested	Not tested
2018-56-1565	Soil complainant property	Soil	9.58	2.52	Not tested
2018-56-1566	Vegetation respondent property	Vegetation	Not tested	Not tested	Not tested
2018-56-1567	Soil respondent field	Soil	1399*	997*	Not tested
2018-56-1568	Complainant baseball cap	Clothing	804	3340	1270
2018-56-1569	Complainant socks	Clothing	4880	1460	1340
2018-56-1570	Complainant shoes	Clothing	NA	NA	NA
<p>PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC</p> <p>*results exceeded calibration curve range and reported as minimum concentration found.</p>					
LOQ (ppb)	Soil		0.7	0.07	N/A
LOQ (ng/swab)	Swab		1	1	0.4
LOQ (ng/clothing)	Clothing		60	60	24
Signature			Date	06/08/18	

10. The lab results reflected the presence of metolachlor on some of the samples. Metolachlor was not an active ingredient in **Armezon Pro** or **Atrazine 90 WDG**. In an attempt to explain the presence of metolachlor, I contacted various persons who farmed the land surrounding the complainant. Each person gave me their pesticide application information for 2018. There was no pesticide application information, which reflected an application of metolachlor. I spoke to the complainant again. I was told by the complainant they did not use pesticides on their property. At this time, I was unable to provide an explanation for the presence of metolachlor in the environmental samples.

11. The label for **Armezon Pro** reads in part, “**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift” and the label for **Atrazine 90 WDG** reads in part, “**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift.”

12. After reviewing all available information for this investigation, the respondent is in violation of the **Atrazine 90 WDG** and **Armezon Pro** labels when he allowed both products to contact the complainant through direct contact and/or drift.



Kevin W. Gibson
Pesticide Investigator

Date: October 17, 2018

Disposition: Jason Reichenbaugh was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift to people. A civil penalty in the amount of \$100.00 was assessed for this violation. Consideration was given to the fact this was Jason Reichenbaugh’s first violation of similar nature. Consideration was also given to the fact a restricted use pesticide was involved.



George N. Saxton
Compliance Officer

Draft Date: November 5, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0532

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
765-494-1585

Respondent: Target
Laura Stanley Food and Beverage Leader
11750 Commercial Drive
Fishers, IN 46038
317-845-4945

Registrant: Murphy's Naturals, Inc.
1053 E. Whitaker Mill Road, #115
Raleigh, NC 27604
1-888-314-5109

1. On May 22, 2018, I performed a routine marketplace inspection at Target located in Fishers, Indiana. I spoke with the Food and Beverage Leader Laura Stanley and informed her of the process of the marketplace inspection.
2. Upon completion of the inspection, I located one (1) unregistered pesticide product that was being offered for sale in the Target store. I spoke with Sarah Caffery, Pesticide Registration, and she confirmed that the pesticide product was unregistered. The product is as follows:
 - a. Murphy's Naturals Mosquito Repellent Incense, a 25(b)¹ product.
 - i. 48 units in stock since 5-8-2018.
3. I spoke with Mrs. Stanley and informed her of the unregistered pesticide product I had located. I informed Mrs. Stanley that I would be issuing an Action Order instructing them to remove the unregistered pesticide products from the shelves and place them in storage and that they are not to be sold or removed from the store unless contacted in writing by OISC. I also informed him that I would be retaining an evidentiary sample of the pesticide product listed above, for my case. I asked Mrs. Stanley if she was able to provide me with any information for when the last shipment came to the store and she was able to scan the item and verbally tell me the last time they arrived. Mrs. Stanley stated that the pesticide product arrived on May 8, 2018.
4. I placed the sample in a clear evidence bag and sealed for transport to the Formulation Lab.
5. On May 23, 2018, I delivered the evidentiary sample to the Formulation Lab.

¹ Minimum risk pesticide



Garret A. Creason

Garret A. Creason
Investigator

Date: June 5, 2018

Disposition:

- A. On June 5, 2018, the information was forwarded to the Registration Section for a label review.
- B. On August 9, 2018, the label review was complete and revealed:
 - a. Missing ingredient for whatever makes the incense green;
 - b. Whatever holds the incense together is missing from the label;
 - c. “Deet Free” is false and misleading since Deet is usually a topical ingredient not found in incense.
- C. Murphy’s Naturals, Inc. was cited for violation of section 57(1) of the Indiana Pesticide Registration Law for distributing an unregistered pesticide product into Indiana. A civil penalty in the amount of \$500.00 was assessed for this violation.
- D. Murphy’s Naturals, Inc. was cited for violation of section 57(5) of the Indiana Pesticide Registration Law for distributing a pesticide product into Indiana that was false and misleading. A civil penalty in the amount of \$500.00 was assessed for this violation.
- E. Consideration was given to the fact this was Murphy’s Naturals, Inc.’s second violation of similar nature. See case number 2017/1102.

George N. Saxton

George N. Saxton
Compliance Officer

Draft Date: September 24, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0575

Complainant: Mike White
2010 E. SR 18
Brookston, Indiana 47923
765-427-4421

Respondent: Joshua Meharry
Vince Seward
Co-Alliance LLP
27 W 250 S
Bringhurst, Indiana 46913
765-714-7851

Registered Technician
Certified Applicator

1. On May 28, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected herbicide damage to his trees and plants. The photos that were sent to OISC by the complainant were forwarded to Purdue Plant Pest Diagnostic Lab (PPDL). Dr. Creswell of PPDL indicated this appeared to be herbicide exposure.
2. On May 31, 2018, I went to the complainant's home to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC.
3. During my on-site investigation, I did the following:
 - a) Looked for and determined that there were not several pesticide applications that may have affected the complainant's property.
 - b) Observed and photographed what I believed to be symptoms from exposure to some sort of herbicide throughout the complainant's property (figures 1, 2 and 3) located to the west and north of the target field. The target field and the complainant's property/garden were separated by twelve (12) feet. (figure 4)
 - c) Collected vegetation samples from impacted areas of the complainant's property for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDL).
 - d) Collected vegetation samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted vegetation from complainant's property/garden
 - ii) Vegetation from target fields
 - e) Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks (figure 5)
4. On June 7, 2018, I collected written records from the applicator Mr. Meharry. The written records and statements addressed the below items as follows:
 - a) Application date & time: May 25, 2018; from 10:45am to 11:27am
 - b) Target field: Krause SR 18 field to the south and east of complainant's property;
 - c) Pesticides: Atrazine 4L (atrazine) EPA Reg. #1381-158; Resicore (acetochlor, clopyralid, mesotrione) EPA Reg. #62719-693; Durango DMA (glyphosate) EPA Reg. #62719-556
 - d) Nozzles: Tee Jet AII105

- e) Boom height: 24 inches
- f) Ground speed: 13 mph
- g) Winds: 6 mph out of the west southwest;
- h) Applicator: Joshua Meharry;

5. I searched wind data from www.weatherunderground.com for zip code 47923 in Brookston, Indiana for the reported date and time of the application. The results of that search indicated that wind speed and direction during the application were as follows:

May 25, 2018
As recorded at Jasper County, IN 5-10 mph out of the south southwest

10:35 AM	82 ° F	36 ° F	19 %	S	7 mph	0 mph
10:55 AM	86 ° F	34 ° F	15 %	WSW	5 mph	0 mph
11:15 AM	84 ° F	36 ° F	18 %	SW	10 mph	0 mph
11:35 AM	86 ° F	34 ° F	15 %	S	6 mph	0 mph

Jasper County Wind Data 27 Miles Northwest

- 6. The wind would have been blowing toward the complainants property during the application.
- 7. The report from the PPPDL states, “Chlorosis and bleaching at growing point on asparagus is indicative of injury from a HPPD-inhibiting herbicide like mesotrione. Curled/cupped leaves on redbud is indicative of injury from a growth regulator herbicide like clopyralid or 2,4-D. Chlorosis/necrosis on the leaf margin of some samples is indicative of injury from a photosystem II-inhibiting herbicide like atrazine. Chlorosis on tulip poplar leaves could be indicative of injury from glyphosate.”
- 8. The report from the OISC Pesticide Residue Laboratory states:

Case # 2018/0575						Investigator	K. Neal			
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)							
			Acetochlor	Atrazine	Mesotrione	Clopyralid	2,4-D	Glyphosate	AMPA	
2018-22-1021	Tulip veg white back yard	Vegetation	BDL	300	5.75	16.9	17.5	81.0	BDL	
2018-22-1022	Target field vegetation	Vegetation	276	*1780	*528	*629	5.68	14700	112	
2018-22-1023	Weed vegetation near garden	Vegetation	305	166	17.3	21.7	6.29	189	BDL	
2018-22-1024	Trumpet creeper vegetation	Vegetation	BDL	56.1	24.5	21.7	9.84	246	BDL	
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC										
*result reported as minimum detected due to concentration exceeded calibration curve range										
LOQ (ppb)	Vegetation		3	3	3	4	0.4	5	50	
Signature								Date		09/06/18

9. The label for Durango states, *“Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended.”*
10. The label for Resicore states, *“Avoid spray drift onto adjacent crop or non-crop areas.”*
11. The label for Atrazine 4L states, *“Avoid using near adjacent desirable plants or in greenhouses or injury may occur.”*



Figure One



Figure Two



Figure Three



Figure Four

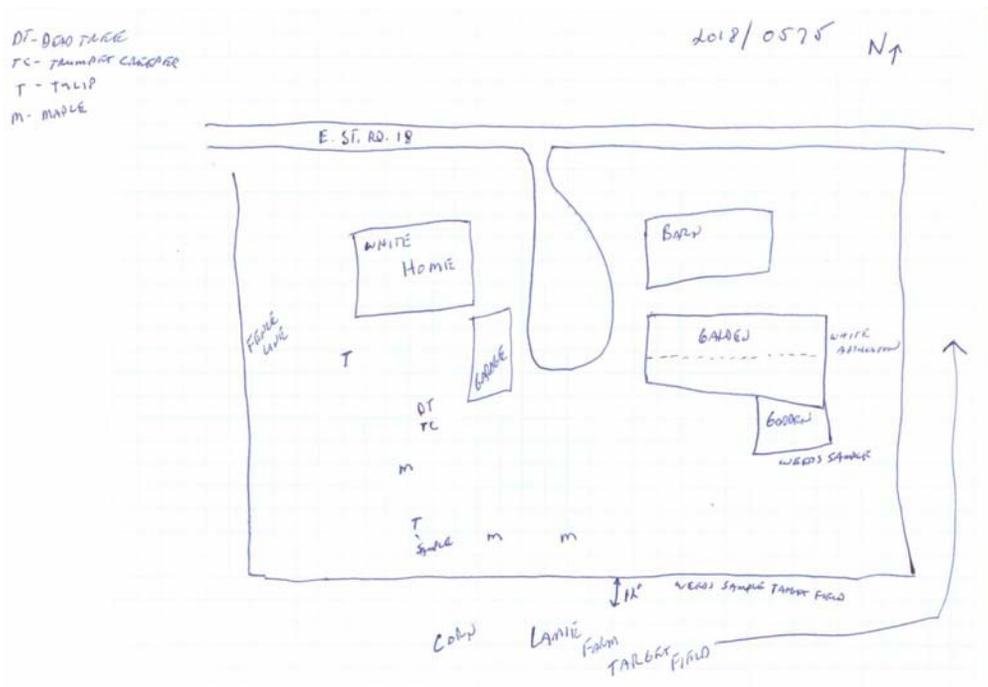
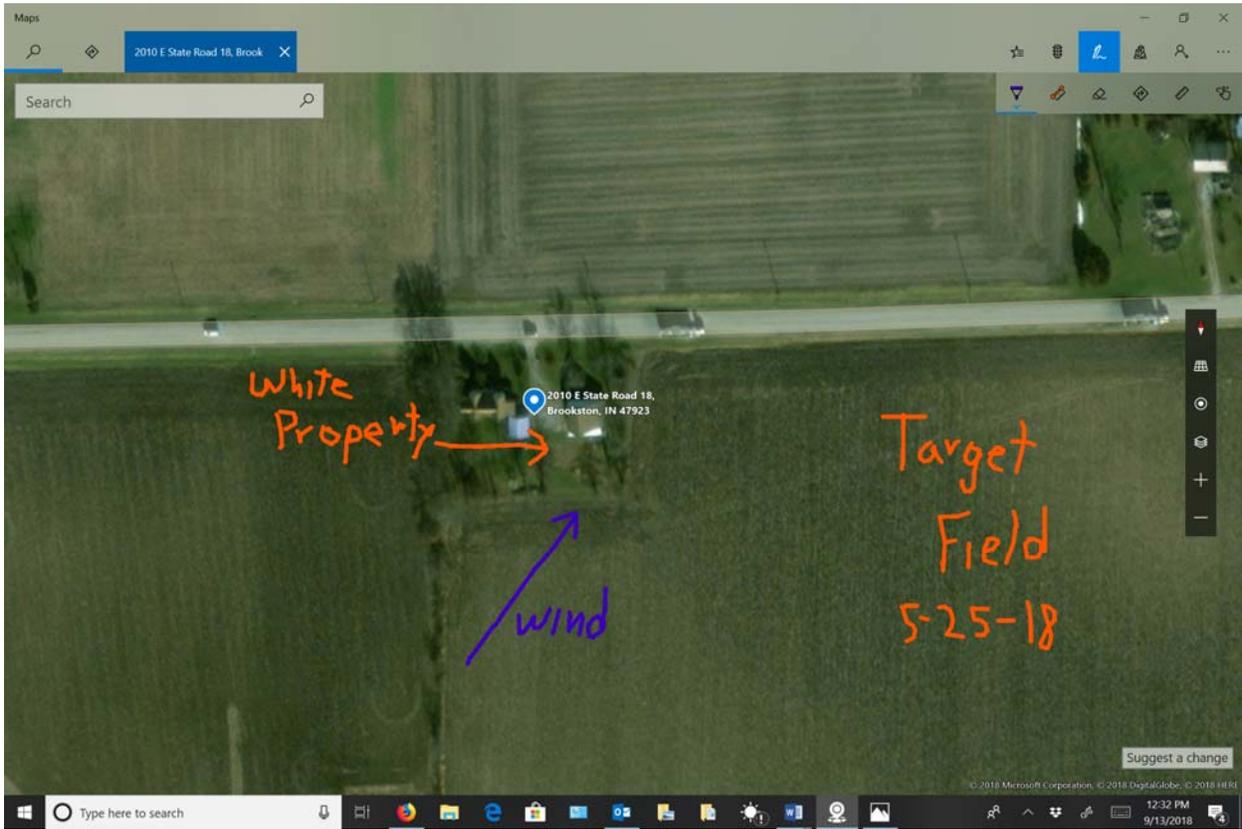


Figure Five



Kevin W. Neal
Kevin W. Neal
Investigator

Date: September 13, 2018

Disposition: Joshua Meharry and Vince Seward were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact this was Mr. Hinkle's first violation of similar nature. Consideration was also given to the fact a restricted use pesticide was involved.

George N. Saxton
George N. Saxton
Compliance Officer

Draft Date: December 18, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/0590

Complainant: Shalei Rogers
Henry County Health Department
1201 Race Street
New Castle, Indiana 47362
480-620-1347

Respondent: Anil Megha
Garden Inn
24 E. Executive Drive
New Castle, Indiana 47362
765-666-1481

Owner

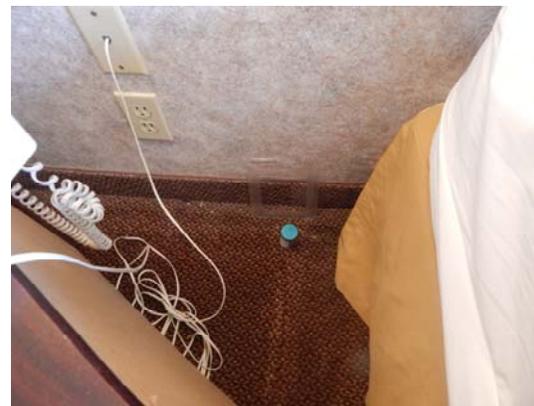
Huadong Chen
Sake Japanese Steakhouse and Sushi
2201 S. Memorial Drive
New Castle, Indiana 47362
765-388-2660

Manager

1. On May 31, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report that during a routine inspection of the motel, she discovered three pump-type sprayers that are typically used for pesticide application. She asked the lady working at the motel what was in the sprayers and was told it was for 'spiders' but did not know what the pesticide(s) was. The sprayers were allegedly labeled "day one", "day two" and "day three".
2. On June 4, 2018, I met with Ms. Shalei Rogers, Environmental Health Director for the Henry County Health Department, at the Garden Inn hotel located in New Castle, Indiana. She advised me, she had conducted an inspection of the Garden Inn hotel and found three hand pump sprayers in the laundry room of the motel. She stated the sprayers were labeled day one, day two and day three. We made contact with Mr. Anil Megha, owner of the motel. I asked him who makes pesticide applications at the motel. He stated he did. I asked him about the sprayers labeled day one, day two and day three. He stated he uses them as he sprays for bugs in sequence of three days to kill and control growth of bed bugs, roaches and other insect pests. I asked him what pesticides he used in the sprayers. He provided me with three pesticides he used and the order in which he used them. He stated on day one, he used Harris Bedbug Killer EPA Reg. #5-11 with the active ingredient deltamethrin and JT Eaton Bedbug powder EPA Reg. #56-67 with the active ingredient silicon dioxide. He stated on day two and three, he applied Gentrol IGR EPA Reg. #2724-351 with the active ingredient hydroprene and JT Eaton Bedbug powder. I asked him if he had applied any other pesticides and he stated he had not. The following are photographs of the pesticides applied by Mr. Megha and the sprayers he used.



3. I then collected formulation samples from sprayers one, two and three. I also collected a swab sample from the inside of day two sprayer, as the formulation sample from the sprayer was minimal. The samples were labeled and submitted to the OISC formulation lab. I then collected swab samples from rooms 120 and 124 and from the hallway on the first floor of the motel. The samples were labeled and submitted to the OISC residue lab. The following photographs show the swab sample locations in the rooms.



4. On September 26, 2018, I received a report from the OISC formulation lab and from the OISC residue lab. The formulation lab report indicated the active ingredient hydroprene was detected in the samples submitted, along with the active ingredient fipronil, which is a termiticide and illegal to use indoors. The residue lab report indicated the active ingredients hydroprene and deltamethrin were detected in samples submitted as well as the active ingredient fipronil was detected in the swab samples collected from both rooms and hallway. The following is a copy of the formulation and residue lab reports.

OFFICE OF INDIANA STATE CHEMIST
Pesticide Formulations Laboratory

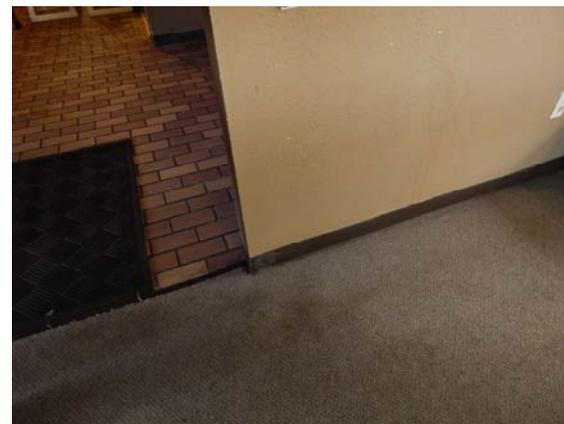
Case # 2018/0590			
Sample Number	Sample Description	Active Ingredient(s) Claimed	Pesticide A.I. Detected
2018-3-0155	Subsample of "Day 1" handheld sprayer	s-Hydroprene and Deltamethrin	Fipronil Piperonyl Butoxide Etofenprox
2018-3-0156	Subsample of "Day 2" handheld sprayer	s-Hydroprene and Deltamethrin	s-Hydroprene Fipronil Piperonyl Butoxide
2018-3-0157	Swab of "Day 2" handheld sprayer	s-Hydroprene and Deltamethrin	s-Hydroprene Fipronil Piperonyl Butoxide Etofenprox
2018-3-0158	Subsample of "Day 3" handheld sprayer	s-Hydroprene and Deltamethrin	s-Hydroprene Fipronil Piperonyl Butoxide Etofenprox
Signature		Date	9/26/2018

Case #	2018/0590		Investigator			B. Brewer	
Sample #	Sample Description	Matrix	Amount of Analyte Detected (ng/swab)				
			S-Hydroprene	Fipronil*	PBO	Etofenprox	Deltamethrin
2018-33-6091	Trip blank	Swab	BDL	BDL	BDL	BDL	BDL
2018-33-6092	Control swab	Swab	BDL	BDL	BDL	BDL	BDL
2018-33-6093	Swab from Room 120	Swab	BDL	788	Detected	BDL	BDL
2018-33-6094	Swab from Room 124	Swab	Detected	6030	Detected	Detected	BDL
2018-33-6095	Swab from hallway	Swab	Detected	33400	Detected	Detected	Detected
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC *Fipronil amount reported as estimate due to higher than normal instrument response variation.							
LOQ (ng/swab)	Swab		200	200	200	500	200
Signature					Date	09/26/18	

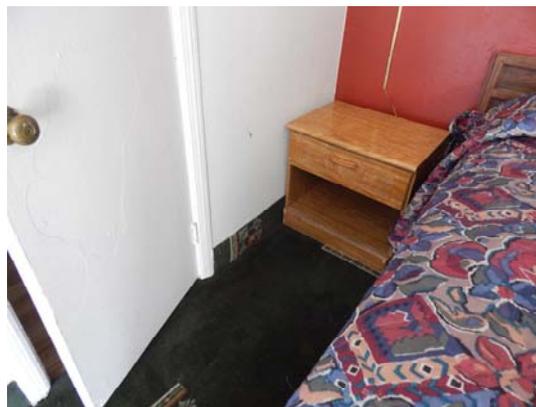
- On October 1, 2018, I again met with Ms. Rogers at the Garden Inn. We again made contact with Mr. Megha. I explained to him the results of the formulation and residue lab reports. I advised him the active ingredient fipronil was detected and asked him if he had applied any

termiticides indoors at the motel. He stated he had applied Termidor termiticide EPA Reg. #7969-210 with the active ingredient fipronil indoors at the Garden Inn and at the New Castle Inn, which he also owns. He stated he applied it to combat ants. He stated he thought he applied it only once at each location, but did not have any records. I advised Mr. Megha it was illegal to apply a termiticide with the active ingredient fipronil indoors. I had Mr. Megha sign a document which stated he applied Termidor termiticide with fipronil at the Garden Inn. The signed document is in this case file.

6. On October 3, 2018, Ms. Rogers, OISC Agent Jay Kelley and I met at the Sake Japanese Steakhouse and Sushi at 2201 S. Memorial Drive New Castle, Indiana, as Ms. Rogers advised me Mr. Megha also owned that building as well. I made contact with Mr. Huadong Chen, manager of the restaurant. I asked him who makes pesticide applications for insects indoor at the restaurant. He stated he makes all pesticide applications. He stated he applied Taurus SC termiticide EPA Reg. #53883-279 with the active ingredient fipronil and Spectracide Bug Stop EPA Reg. #9688-298-8845 with the active ingredient cyhalothrin to the dining area and to the kitchen area. He stated he had applied the Taurus SC one time this year. He had no records of the applications. I advised him it was illegal to apply a termiticide with the active ingredient fipronil indoors. He stated he was not aware of that. I obtained a signed statement from Mr. Chen stating he applied Taurus SC termiticide with the active ingredient fipronil, indoors at the restaurant. This signed statement is in this case file. I also issued an Action Order to Mr. Chen, ordering him to cease any and all pesticide applications containing fipronil indoors. The Action Order is in this case file. Mr. Chen provided me with the Taurus SC termiticide bottle. I collected swab samples from the dining room, the kitchen and the back door area. All of the samples were labeled and submitted to the OISC residue lab. The following photographs show the products and the sample collection locations.



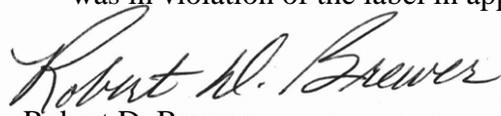
7. We then went to the New Castle Inn located at 2005 S Memorial Drive New Castle, Indiana. This was the other hotel where Mr. Megha stated he had applied Termidor termiticide indoors. Mr. Megha was present and I advised him I wanted to collect some swab samples from a couple of rooms and from the office area. He then opened up rooms 104 and 110. I collected a swab sample from each of the rooms. We then went to the office area and I collected a swab sample from the baseboard of the office area. All of the samples were labeled and submitted to the OISC residue lab. The following photographs show the sample collection locations.



8. I researched the label for Termidor SC termiticide. The label stated on the first page, “*DO NOT use this product for termite, wood-infesting pest, or general pest prevention and /or control indoor*”. I also researched the label for Taurus SC termiticide. The label stated on the first page, “*DO NOT use this product for termite or other pest control indoors*”. Copies of the labels are in this case file.
9. On October 9, 2018, I received a report from the OISC residue lab. The report indicated the active ingredient fipronil was detected in all of the swab samples collected from the Sake restaurant and all of the swab samples collected from the New Castle Inn. The following is a copy of the OISC residue lab report.

Case #	2018/0590		Investigator	B. Brewer			
Sample #	Sample Description	Matrix	Amount of Analyte Detected (ng/swab)				
			S-Hydroprene	Fipronil*	PBO	Etofenprox	Deltamethrin
Below are additional samples submitted on 10/4/18							
2018-33-6252	Trip blank Sake	Swab	NA	BDL**	NA	NA	NA
2018-33-6253	Sake dining room swab	Swab	NA	Detected **	NA	NA	NA
2018-33-6254	Sake kitchen swab	Swab	NA	Detected **	NA	NA	NA
2018-33-6255	Sake back door swab	Swab	NA	Detected **	NA	NA	NA
2018-33-6256	NC Inn trip blank	Swab	NA	BDL**	NA	NA	NA
2018-33-6257	NC Inn swab room 104	Swab	NA	Detected **	NA	NA	NA
2018-33-6258	NC Inn swab room 110	Swab	NA	Detected **	NA	NA	NA
2018-33-6259	NC Inn swab office	Swab	NA	Detected **	NA	NA	NA
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC; NA=data not available							
*These Fipronil amounts reported as estimate due to higher than normal instrument response variation.							
**These swabs were submitted for Fipronil qualitative test only. Detection limit for these was established at 4 ng/swab, lower than the previous run.							
LOQ (ng/swab)	Swab	200	200	200	500	200	
Signature				Date	10/9/18		

10. Per the label language of both Termidor SC and Taurus SC, the labels stated it was illegal to apply either product indoors. Mr. Megha admitted he had applied Termidor SC indoors at the Garden Inn hotel and the New Castle Inn hotel. The residue lab report confirmed the active ingredient fipronil was detected in all samples collected at both locations. Mr. Chen admitted he had applied Taurus SC indoors at the Sake Restaurant. The residue lab report confirmed the active ingredient fipronil was detected in all samples collected at the restaurant. Mr. Chen was in violation of the label in applying Taurus SC indoors at the Sake Restaurant.



Robert D. Brewer
Investigator

Date: October 24, 2018

Disposition:

- A. Anil Megha was cited for two (2) counts of violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application indoors. A civil penalty in the amount of \$500.00 (2 counts x \$250.00 per count) was assessed.

B. Huadong Chen was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application indoors. A civil penalty in the amount of \$250.00 was assessed for this violation.

C. On November 27, 2018, our agency received payment from Huadong Chen for the \$250.00 civil penalty assessed.

D. As of February 8, 2019, Anil Megha had not paid the \$500.00 civil penalty assessed. A second letter was sent as a reminder he still owed OISC.



George N. Saxton
Compliance Officer

Draft Date: November 9, 2018
Final Date: March 4, 2019

Cc: srogers@henryco.net

CASE SUMMARY

Case #2018/0600

Complainant: Kenny Gay
7670 S. Range Line Road
Dana, Indiana 47847
812-208-5541

Respondent: Kurtis Hill
11058 S. Range Line Road
Clinton, Indiana 47842
812-208-2464

Private Applicator

Ross Holbert
1436 W 700 S
Dana, Indiana 47847
812-240-3666

Private Applicator

1. On June 4, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his garden. He stated he went away for this past weekend and came back to find what he suspects are pesticide exposure symptoms to his garden. He does not know who may have drifted on him.
2. On June 5, 2018, I went to the complainant's home to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC.
3. During my on-site investigation I did the following:
 - a) Looked for and discovered several potential pesticide applications made in the area.
 - b) Observed and photographed what I believed to be symptoms from exposure to some sort of growth regulator throughout the complainant's property (figures 1, 2 and 3) located to the west and east of the target fields. The target field to the east of the complainant's property/garden was separated by fifteen (15) feet. (figure 4) The target field to the west was thirty-three (33) feet across S Range Line Road from complainant's property. (figure 5)
 - c) Collected vegetation samples from impacted areas of the complainant's property/garden for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
 - d) Collected vegetation and soil samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted vegetation from complainant's property/garden
 - ii) Vegetation from target fields
 - iii) Soil from target field west of Gay
 - e) Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks (figure 6)

4. On June 6, 2018, I collected written records from the applicator Mr. Hill. The written records and statements addressed the below items as follows:
 - a) Application date & time: May 29. 2018; from 10:45am to 11:27am
 - b) Target field: field to the east of complainant’s property;
 - c) Pesticides: Degree Xtra (acetochlor and atrazine) EPA Reg. #524-511; Atrazine 4L (atrazine) EPA Reg. #34704-69; Callisto (mesotrione) EPA Reg. #100-1131 & Roundup PowerMax (glyphosate) EPA Reg. #524-549;
 - d) Nozzles: Hypro ULD 120-05
 - e) Boom height: 30 inches
 - f) Ground speed: 10.8 mph
 - g) Winds: 4 mph out of the east;
 - h) Applicator: Kurtis Hill;

5. I searched wind data from www.weatherunderground.com for zip code 47847 in Dana, Indiana for the reported date and time of the application. The results of that search indicated that wind speed and direction during the application were as follows:

May 29, 2018

As recorded at Edgar County, IL 8-13 mph gusting to 16 mph out of the east/southeast

10:35 AM	83 ° F	71 ° F	66 %	E	8 mph	0 mph
10:55 AM	84 ° F	71 ° F	64 %	SE	8 mph	0 mph
11:15 AM	85 ° F	69 ° F	59 %	SE	13 mph	0 mph
11:35 AM	85 ° F	69 ° F	57 %	SE	10 mph	16 mph

Edgar County Wind Data 15 Miles Southwest

6. The wind would have been blowing toward the complainants property during the application.

7. On June 10, 2018, I collected written records from the applicator Mr. Holbert. The written records and statements addressed the below items as follows:
 - i) Application date & time: May 8. 2018; from 4:51pm to 5:45pm
 - j) Target field: field to the west of complainant’s property;
 - k) Pesticides: Matador (imazethapyr, metribuzin, metolachlor) EPA Reg. #34704-1054
 - l) Nozzles: Hypro ULD 120-04
 - m) Boom height: 28 inches
 - n) Ground speed: 12 mph
 - o) Winds: 8 mph out of the southeast;
 - p) Applicator: Ross Holbert;

8. I searched wind data from www.weatherunderground.com for zip code 47847 in Dana, Indiana for the reported date and time of the application. The results of that search indicated that wind speed and direction during the application were as follows:

May 8, 2018
As recorded at Edgar County, IL 8-13 mph out of the east/southeast

4:55 PM	80 ° F	42 ° F	26 %	SE	10 mph	0 mph
5:15 PM	80 ° F	42 ° F	26 %	ESE	12 mph	0 mph
5:35 PM	79 ° F	42 ° F	27 %	SE	13 mph	0 mph
5:55 PM	79 ° F	41 ° F	26 %	ESE	8 mph	0 mph

Edgar County Wind Data 15 Miles Southwest

9. The wind would have been blowing away from the complainants property during the application.
10. The report from PPPDL states, “*Chlorosis/necrosis, which is concentrated toward leaf margins, is indicative of injury from atrazine. Some curling/cupping on leaves of most broadleaves is indicative of injury from a growth regulator like 2,4-D.*”
11. The report from the OISC Pesticide Residue Laboratory states:

Case #	2018/0600				Investigator	K. Neal				
Sample #	Sample Description	Amount of Analyte								
		Matrix	Acetochlor	Atrazine	Mesotrione	Glyphosate	AMPA	Imazethapyr	Metribuzin	Metolachlor
2018-22-1031	Veg from target field West of Gay	Veg	14.9	53.7	BDL	64.5	BDL	1.37	26.2	30.1
2018-22-1032	Soil target field West of Gay	Soil	23.2	4.81	BDL	26.7	105	20.1	57.7	711*
2018-22-1033	Veg target field East of garden	Veg	523*	416*	69.4	274	BDL	BDL	BDL	1.69
2018-22-1034	Forsythia SW corner	Veg	231	121	BQL	72.2	BDL	BDL	5.92	3.85
2018-22-1035	Zucchini Gay garden	Veg	26.3	75.4	3.93	19.4	BDL	BDL	BDL	3.95
2018-22-1036	Tomato Gay garden	Veg	100	177	6.35	17.5	BDL	BDL	BDL	2.44
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC * amount reported as minimum detected due to concentration exceeding calibration curve range.										
LOQ (ppb)	Vegetation	1	3	3	5	50	0.7	0.7	0.7	
	Soil	0.7	3	0.7	5	50	0.07	0.07	0.7	
Signature					Date	9/4/18				

12. The label for Degree Xtra states, *“Do not apply when wind conditions favor drift to non-target sites.”*
13. The label for Atrazine 4L states, *“Do not apply when weather conditions favor drift from treated areas.”*
14. The label for Callisto states, *“The pesticide must only be applied when the potential for drift to adjacent sensitive areas, (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g. when wind is blowing away from the sensitive areas).*
15. The label for RoundUp PowerMax states, *“Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation, as small quantities of this product can cause severe damage or destruction to the crop, plants or other vegetation on which application was not intended.”*



Figure One



Figure Two



Figure Three



Figure Four



Figure Five

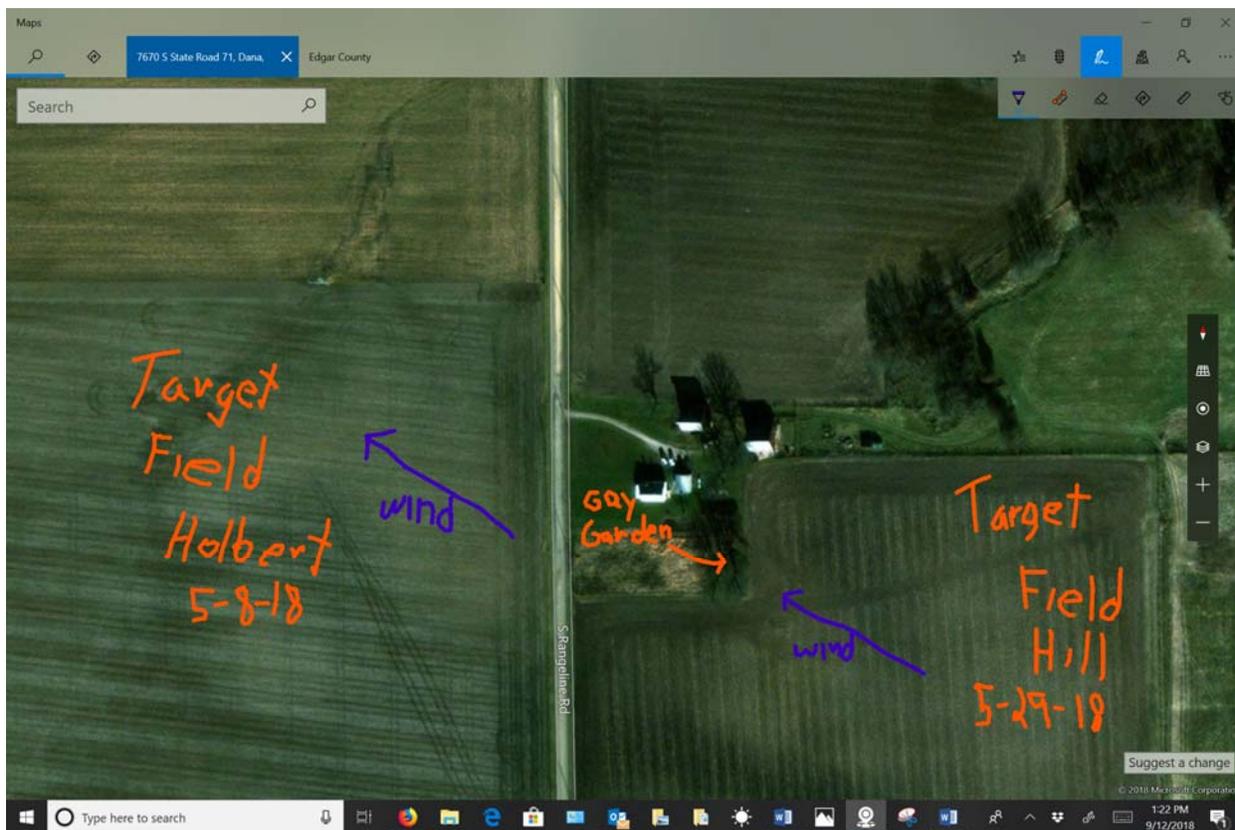


Figure Six

Kevin W. Neal
Investigator

Date: September 12, 2018

Disposition: Kurtis Hill was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$100.00 was assessed for this violation. Consideration was given to the fact this was Mr. Hill's first violation of similar nature. Consideration was also given to the fact a restricted use pesticide was involved.

George N. Saxton
Compliance Officer

Draft Date: December 4, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/0627

Complainant: John Grigsby
12160 W 800 S
Owensville, Indiana 47665
812-453-8683

Respondent: Jason Motz
Posey County Co-Op
151 Lockwood Street
Poseyville, Indiana 47633
812-874-2213

Certified Applicator
Licensed Business

1. On June 7, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift from a neighbor's beans to his Liberty beans. He was not sure of the application date.
2. On June 8, 2018, I spoke John Grigsby via telephone. Mr. Grigsby stated on or around June 1, 2018, he noticed his non-DT soybean field showing symptoms of dicamba injury. Mr. Grigsby stated the Posey County CoOp made an application of a dicamba product to the field directly to the west of his field.
3. On June 8, 2018, I contacted the Posey County Co-Op via telephone and spoke to Branch Manager Darrell Shemwell. I advised Mr. Shemwell I was a Pesticide Investigator for OISC and the complaint against Posey County Co-Op. Mr. Shemwell stated he had spoken to Mr. Grigsby and was aware of the complaint. Mr. Shemwell stated he contacted Mr. Grigsby prior to the application to confirm Mr. Grigsby had non-DT soybeans. Further, Mr. Shemwell stated Posey County CoOp made an application of Engenia to the field and on the day of the application the wind was out of the south and changed during the application to out of the southwest blowing towards Mr. Grigsby non-DT soybean field. Mr. Shemwell stated he told Mr. Grigsby if there was a yield loss he would take care of it. I advised Mr. Shemwell I would be sending him via email a pesticide investigation inquiry for the applicator to complete and return to me.
4. On June 11, 2018, I met with John Grigsby at his field located near 12090 West 925 South in Poseyville, Indiana.
5. During my on-site investigation I did the following:
 - a. Looked for, but did not find, any other potential sources of a growth regulator type herbicide application adjacent to Mr. Grigsby's soybean field. The target field bordered Mr. Grigsby's soybean field to the west with a small grass strip separating the two fields (See Fig. 2).
 - b. Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybean plants across Mr. Grigsby's soybean field (See Fig 1). Symptoms were visible throughout Mr. Grigsby's soybean field. Symptoms were notably more severe on the west

end of the field closet to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.

- c. Collected samples of injured soybean plants from Mr. Grigsby's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
- d. Collected composite soil and vegetation samples from the target soybean field. Collected gradient soil and vegetation samples from Mr. Grigsby's soybean field (See Fig. 3). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2

- Fig. 1 is Mr. Grigsby's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is looking north at the dividing line between the two fields.



Fig. 3

- Fig. 3 is an aerial diagram of the fields including field property lines and where soil and vegetation samples were taken from.

6. On June 15, 2018 I received a completed Pesticide Investigation Inquiry from Mr. Shemwell which indicated the following:

- Certified Applicator: Jason Motz
- Application Date and Time: May 26, 2018, 8:17am to 8:40am
- Pesticide Applied: Roundup PowerMax, EPA Reg. #524-549, Glyphosate Engenia, EPA Reg. #7969-345, Dicamba, 12.8oz/Acre Zidua, EPA Reg. #7969-338, Pyroxasulfone
- Adjuvants: Oculus and Justified
- Target Field Location and Size: By Old Silo, 16 Acres
- Pre- or Post- Emergent Application: Post
- Wind Direction at Boom Height: Start- S, End- SSW
- Wind Speed at Boom Height: Start- 4.8mph, End- 4.8mph
- Nozzles: Wilger UR 110-08
- Boom Height: 24 to 30 Inches
- Downwind Buffer: No
- Checked Registrants Website before application: Yes, May 21, 2018
- Checked DriftWatch before application: Yes, May 21, 2018
- Dicamba Mandatory Training Attended: Yes, January 24, 2018

7. Weather history data was obtained at www.wunderground.com and the closest official weather station to the application site was the Evansville Regional Airport (KEVV) located in Evansville, Indiana 19 miles southeast of the application site. The weather data for May 26, 2018 follows:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
5/26/2018	6:54 AM	72 F	SW	7 mph	0 mph
5/26/2018	7:04 AM	72 F	SW	7 mph	0 mph
5/26/2018	7:54 AM	73 F	S	9 mph	0 mph
5/26/2018	8:54 AM	76 F	SSW	7 mph	0 mph
5/26/2018	9:54 AM	76 F	SW	9 mph	0 mph

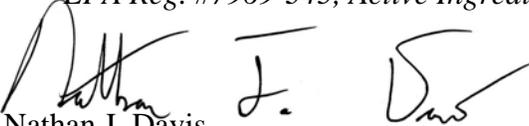
8. According to the weather history for May 26, 2018 at the start of the application the wind was out of the south and during the application the wind changed to out of the south south west and would have been blowing toward Mr. Grigsby's field.

9. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*

10. The OISC Residue Laboratory analyzed the soil and vegetation samples collected from the fields for glyphosate, dicamba, its breakdown products DCSA and 5-OH dicamba, and reported the following:

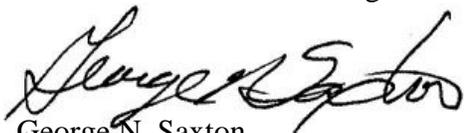
Case #	2018/0627		Investigator		N. Davis		
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)				
			Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-39-9528	Comparable control soil #1	Soil	NA	NA	NA	NA	NA
2018-39-9529	Comparable control veg 2	Vegetation	1.88	BDL	BDL	BDL	BDL
2018-39-9530	Target field composite soil #1	Soil	NA	NA	NA	NA	NA
2018-39-9531	Target field composite veg #2	Vegetation	15900*	25.7	953*	18600	BQL
2018-39-9532	Gradient soil #1 closest to target	Soil	NA	NA	NA	NA	NA
2018-39-9533	Gradient veg #1 closest to target	Vegetation	6.94	BQL	BDL	BDL	BDL
2018-39-9534	Gradient soil #2 middle	Soil	NA	NA	NA	NA	NA
2018-39-9535	Gradient veg #2 middle	Vegetation	2.63	BDL	BDL	BDL	BDL
2018-39-9536	Gradient soil #3 farthest from target	Soil	NA	NA	NA	NA	NA
2018-39-9537	Gradient veg #3 farthest from target	Vegetation	2.23	BDL	BDL	BDL	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC							
*Reported as minimum amount detected due to concentration exceeding calibration curve range							
LOQ (ppb)	Soil	NA	NA	NA	NA	NA	NA
LOQ (ppb)	Vegetation	1	0.4	1	25	125	
Signature						Date	08/31/18

- The OISC Residue Laboratory analysis detected dicamba in the vegetation samples from Mr. Grigsby's non-DT soybean field. Glyphosate was below detection limits in Mr. Grigsby's non-DT soybean field.
- The wind data and laboratory reports along with Mr. Shemwell's statements indicate during the application the wind direction changed from out of the south to out of the south southwest towards Mr. Grigsby's field. The label for *Engenia*, EPA Reg. #7969-345, Active Ingredient = dicamba states, "**DO NOT apply when wind is blowing in the direction of a neighboring sensitive crop**".
- Based on the evidence collected in this investigation, it has been determined that Jason Motz failed to comply with the drift management restrictions on the label for the herbicide *Engenia*, EPA Reg. #7969-345, Active Ingredient = dicamba.


Nathan J. Davis
Investigator

Date: September 10, 2018

Disposition: Jason Motz was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed to Posey County Co-Op. Consideration was given to the fact this was Mr. Motz's first violation of similar nature. Based on the evidence collected in this investigation, it has been determined that Jason Motz failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



George N. Saxton
Compliance Officer

Draft Date: November 1, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0637

Complainant: Sam Jones
4320 W CR 800 S
Madison, IN 47250
812-689-0561

Respondent: Keith Scott
5687 S Old Michigan
Holton, IN 47023
812-621-1158

Private Applicator

1. On June 12, 2018, Sam Jones spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding an agricultural drift complaint. Mr. Jones stated an herbicide application was made to a neighboring farm field about two to three weeks ago that injured the trees on his property.
2. On June 15, 2018, I spoke with Keith Scott. Mr. Scott stated he applied Xtendimax (EPA Reg. #524-617, active ingredient dicamba), Aatrex (EPA Reg. #100-497, active ingredient atrazine), Roundup Powermax (EPA Reg. #524-549), and Corvus (EPA Reg. #100-497, active ingredient thiencazone-methyl) on May 15, 2018. I emailed Mr. Scott a Pesticide Investigation Inquiry (PII) form to complete and return.
3. On June 18, 2018, I received Mr. Scott's PII. Mr. Scott's PII documented the application began at 9:45 with no end time listed. Furthermore, Mr. Scott listed the wind was out of the south, southwest at 5-9mph. The wind direction listed was blowing toward Sam Jones' property. Mr. Scott failed to list on the PII that any buffer was observed. Mr. Scott failed to list that he visited the Driftwatch and manufacturer's websites. In addition, no accompanying required paperwork was submitted for the use of two (2) Restricted Use Pesticides (RUP), Xtendimax and Aatrex.
4. On June 19, 2018, I met with Sam Jones at his residence. I observed exposure symptoms on ornamental trees lining the frontage of Mr. Jones' property. See figures 1-2. I observed droopy, distorted leaves with yellowing edges.

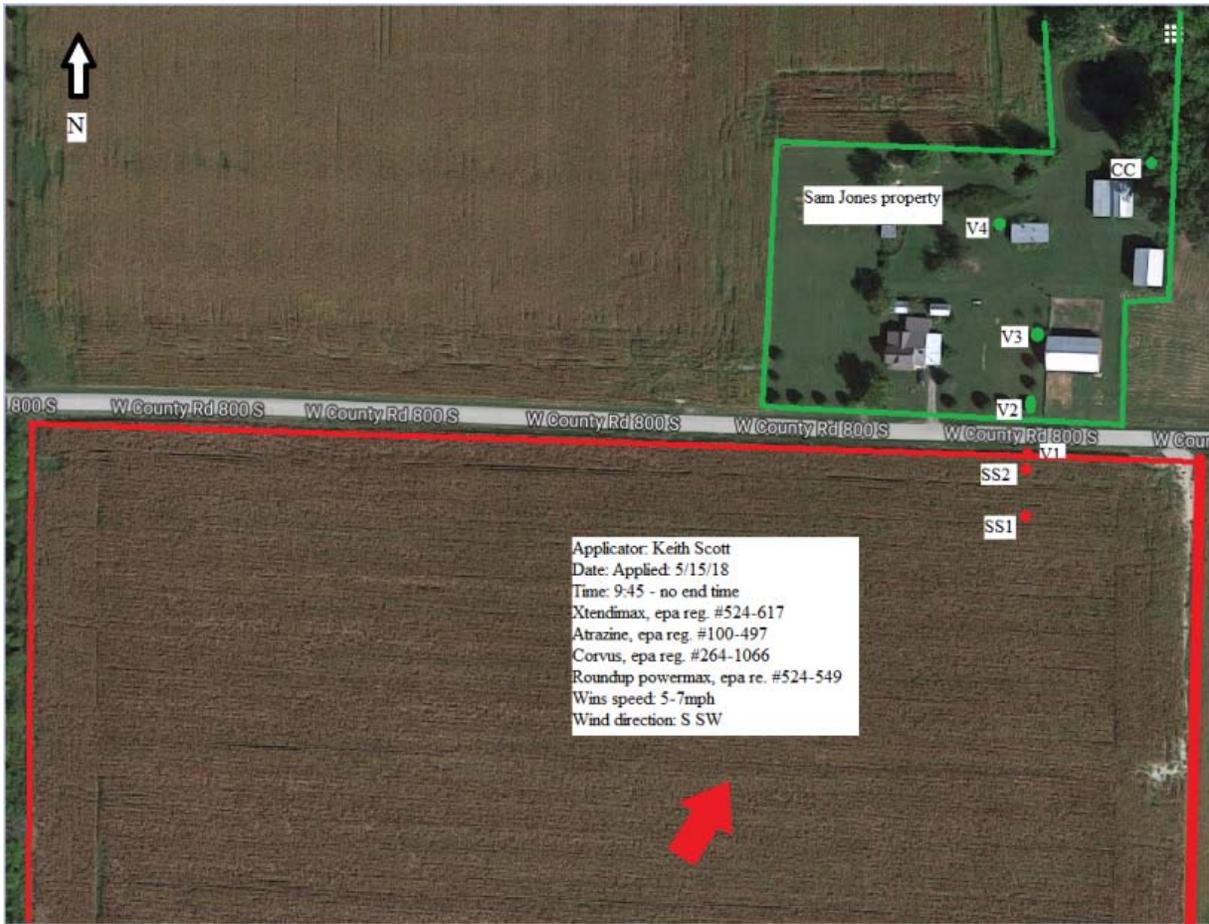


Figure 1-Droopy leaves



Figure 2-Yellowing edges

5. I collected a vegetation sample to be visually analyzed by Purdue's pest and Plant Diagnostic Lab (PPDL). I collected other investigative environmental samples for possible analysis. See site diagram.



Site Diagram

6. On June 23, 2018, PPDL reported the following:

Diagnosis and Recommendations

Host/Habitat	Woody Ornamentals (Woody ornamentals mixed species)
<i>List of Diagnosis/ID(s)</i>	
Suspected for Herbicide injury; Exposure (Abiotic disorder)	

Final Report

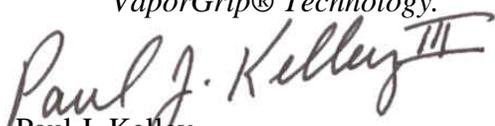
Marginal and interveinal bleaching is indicative of injury from an HPPD-inhibiting herbicide like isoxaflutole. Glyphosate can also cause similar symptomology. I did not see atrazine or dicamba injury on this sample.

Joe Ikley
 Weed Science Research Associate
 Purdue University
 e-mail - jikley@purdue.edu
 Office - (765) 494-0891

There was no evidence of disease on the sample.

Tom Creswell
 creswell@purdue.edu

7. The other environmental samples were not analyzed for documented label violations from Mr. Scott in his PII.
8. Label language for Xtendimax states in part:
 - A. *“DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON.”*
 - B. *“Before making an application, the applicator must survey the application site for adjacent non-target susceptible crops. The applicator must also consult applicable sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site. Susceptible crops include, but are not limited to non-dicamba tolerant soybeans and cotton, tomatoes and other fruiting vegetables (EPA crop group 8), fruit trees, cucurbits (EPA crop group 9), grapes, beans, flowers, ornamentals, peas, potatoes, sunflower, tobacco, other broadleaf plants, and including plants in a greenhouse. Severe injury or destruction could occur if any contact between this product and these plants occurs.”*
 - C. *“The applicator must check the list of tested products found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax® With VaporGrip® Technology.”*


Paul J. Kelley
Investigator

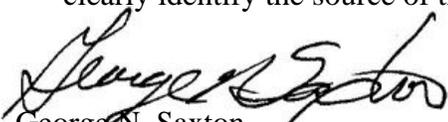
Date: October 18, 2018

Disposition: Keith Scott was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management by not checking the registrant’s website within seven (7) days of application and for failure to check a sensitive crop registry.

Keith Scott was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management by applying when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops. A civil penalty in the amount of \$100.00 was assessed for this violation. Consideration was given to the fact this was his second violation of similar nature. See case number 2016/0805.

Keith Scott was cited for violation of section 65(7) of the Indiana Pesticide Use and Application Law for failure to maintain the records required by IC 15-16-5 or to make reports and supply information when required or requested by the State Chemist in the course of an investigation or inspection. As a result, Mr. Scott’s Private Applicator permit was suspended until such time as he submits all of the required pesticide application information.

Based on the evidence collected in this investigation, it has been determined that Mr. Scott failed to comply with the drift management restrictions on the label for the herbicide Xtendimax. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.


George N. Saxton
Compliance Officer

Draft Date: November 29, 2018
Final Date: January 9, 2019

CASE SUMMARY

Case #2018/0662

Case #2018/1008

Case #2018/1009

Complainant: Tom Wietbrock
3006 W. 181st Avenue
Lowell, Indiana 46356
219-808-4441

Respondent: Timothy Bult
4932 E. 157th Street
Hebron, Indiana 46341
219-712-4759
Private Applicator

1. On June 19, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On June 20, 2018, I met with the complainant to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC. The complainant advised me that he believed his non-DT Roundup Ready beans, planted on May 16, 2018, had been damaged by a pesticide application made by Mr. Bult to a nearby cornfield and DT soybean fields.
3. During my on-site investigation I did the following:
 - a) Looked for and discovered there were three potential dicamba applications made in the area of the impacted site.
 - b) Observed and photographed what I believed to be fairly uniform dicamba exposure symptoms (figure 1) throughout the complainant's non-target, non-DT soybean field (figure 2) located to the south, southwest and north of the target fields. The target fields, as described by the applicator, Field One located 157th and Clay Street northwest corner is north of the complainant's non-target field. (figure 3) Field Two located south of complainant's non-target field. Field Three located 157th Street and Clay Street northeast corner also north of complainant's non-target field.
 - c) Collected soybean plant samples from impacted areas of the complainant's non-target soybean field for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
 - d) Collected samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted soybean plants from complainant's non-target soybean field;
 - ii) Soil from target fields; and
 - iii) Weed vegetation from the target fields.
 - e) Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks (figure 4).
4. On June 21, 2018, I collected written records from the applicator Mr. Bult. The written records and statements addressed the below items as follows regarding three separate applications:

Field One

- a) Application date & time: May 24, 2018; from 1:00pm to 3:00pm;
- b) Target field: soybean field to the north of complainant's soybean field;
- c) Pesticides: Engenia (dicamba) EPA Reg. #7969-345 & Mad Dog Plus (glyphosate) EPA Reg. #34704-890;
- d) Application rate: Engenia 12.8 oz. per acre Mad Dog Plus 1 qt. per acre;
- e) Adjuvants: Reign and Strike Force;
- f) Nozzles: TTI 11003
- g) Boom height: 36 inches
- h) Ground speed: 9 mph
- i) Winds: start 6 mph end 2 mph from the east;
- j) Applicator: Timothy Bult;
- k) Certified supervisor: not applicable;
- l) Left a 110' untreated buffer next to non-target site: not applicable
- m) Checked registrant's web site before application: no
- n) Checked Field Watch before application: no
- o) Surveyed application site before application: yes

Field Two

- a) Application date & time: June 7, 2018; from 3:00pm to 4:00pm;
- b) Target field: soybean field to the south of complainant's soybean field;
- c) Pesticides: Engenia (dicamba) EPA Reg. #7969-345 & Mad Dog Plus (glyphosate) EPA Reg. #34704-890;
- d) Application rate: Engenia 12.8 oz. per acre Mad Dog Plus 1 qt. per acre;
- e) Adjuvants: Reign and Strike Force;
- f) Nozzles: TTI 11003
- g) Boom height: 36 inches
- h) Ground speed: 9 mph
- i) Winds: start 7 mph end 6 mph from the north;
- j) Applicator: Timothy Bult;
- k) Certified supervisor: not applicable;
- l) Left a 110' untreated buffer next to non-target site: not applicable
- m) Checked registrant's web site before application: no
- n) Checked Field Watch before application: no
- o) Surveyed application site before application: yes

Field Three

- a) Application date & time: June 4, 2018; from 9:00am to 10:00am;
- b) Target field: corn field to the northeast and northwest of complainant's soybean field;
- c) Pesticides: Rifle (dicamba) EPA Reg. #34704-861
- d) Application rate: Rifle 12.8 oz. per acre;
- e) Adjuvants: Reign;
- f) Nozzles: TTI 11003
- g) Boom height: 40 inches
- h) Ground speed: 9 mph
- i) Winds: start 6 mph end 8 mph from the west;
- j) Applicator: Timothy Bult;
- k) Certified supervisor: not applicable;
- l) Left a 110' untreated buffer next to non-target site: not applicable

5. I searched wind data from www.weatherunderground.com for zip code 44341 in Hebron, IN for the reported dates and times of the applications. The results of that search indicated that wind speeds and directions during the applications were as follows:

Field One May 24, 2018

As recorded at Porter County Municipal Airport 0-6 mph variable to calm

12:56 PM	83 ° F	53 ° F	36 %	CALM	0 mph	0 mph
1:56 PM	84 ° F	54 ° F	35 %	VAR	6 mph	0 mph
2:56 PM	85 ° F	52 ° F	32 %	CALM	0 mph	0 mph

Porter County Municipal Airport Wind Data 16 Miles Northeast

Field Two June 7, 2018

As recorded at Porter County Municipal Airport 9-12 mph gusts to 18 out of the north

2:56 PM	87 ° F	65 ° F	48 %	N	9 mph	0 mph
3:56 PM	84 ° F	63 ° F	49 %	N	12 mph	18 mph

Porter County Municipal Airport Wind Data 16 Miles Northeast
Wind would have been blowing away from non-target field

Field Three June 4, 2018

As recorded at Porter County Municipal Airport 9-10 mph out of the northwest

8:56 AM	68 ° F	48 ° F	49 %	NW	9 mph	0 mph
9:56 AM	69 ° F	47 ° F	45 %	NW	10 mph	0 mph

Porter County Municipal Airport Wind Data 16 Miles Northeast
Wind would have been blowing toward non-target field.

6. The report from the PPPDL states, “*Cream colored leaf tip with parallel veination at the leaf tip is indicative of injury from dicamba. Injury was not severe enough to cause the cupping/puckering associated with most dicamba injury cases.*”
7. The report from the OISC Pesticide Residue Laboratory states:

Case #	2018/0662			Investigator		K. Neal					
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)								
			Dicamba	DCSA	5-OH Dicamba	2,4-D	Atrazine				
2018-22-1053	Wietbrock RR beans 10 feet in 157th St	Vegetation	3.50	BDL	BDL	BQL	34.2				
2018-22-1054	Wietbrock RR beans 50 feet in 157th St	Vegetation	3.13	BDL	BDL	BQL	31.6				
2018-22-1055	Wietbrock RR 100 feet in 157th St	Vegetation	3.77	BDL	BDL	BQL	37.9				
2018-22-1056	Soil Bult DT beans 157th St	Soil	Did not test	Did not test	Did not test	Did not test	Did not test				
2018-22-1057	Weed veg Bult beans 157th St	Vegetation	9610*	801*	4650*	5.95	32.9				
2018-22-1058	Weed veg Bult corn 157th St	Vegetation	10500*	29.0	110	6.71	74.3				
2018-22-1059	Soil Bult corn 157th St	Soil	Did not test	Did not test	Did not test	Did not test	Did not test				
2018-22-1060	Wietbrock beans RR @ tree line	Vegetation	BDL	BDL	BDL	BQL	61.3				
2018-22-1061	Weed veg Bult DT beans @ Tree line	Vegetation	13900*	57.9	9.28	8.60	40.0				
2018-22-1062	Soil Bult DT beans @ tree line	Soil	Did not test	Did not test	Did not test	Did not test	Did not test				
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC *Amount report as minimum detected due to concentration exceeding calibration curve											
LOQ (ppb)	Vegetation		1	0.4	1	1	3				
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Signature</td> <td style="width:55%; text-align: center;"></td> <td style="width:15%;">Date</td> <td style="width:15%; text-align: center;">09/23/18</td> </tr> </table>								Signature		Date	09/23/18
Signature		Date	09/23/18								

8. The label for Engenia states, “Before making an application, the applicator must survey the application site for neighboring sensitive areas. The applicator must also consult sensitive crop registries to locate nearby sensitive areas where available.” And “DO NOT exceed a boom height of 24 inches above target pest or crop canopy.” And “Wind Speed-3 to10 mph.”
9. The label for Rifle states, “Do not spray near sensitive plants if wind is gusty or in excess of 5 mph and moving in the direction of adjacent sensitive plants.”



Figure One



Figure Two



Figure Three

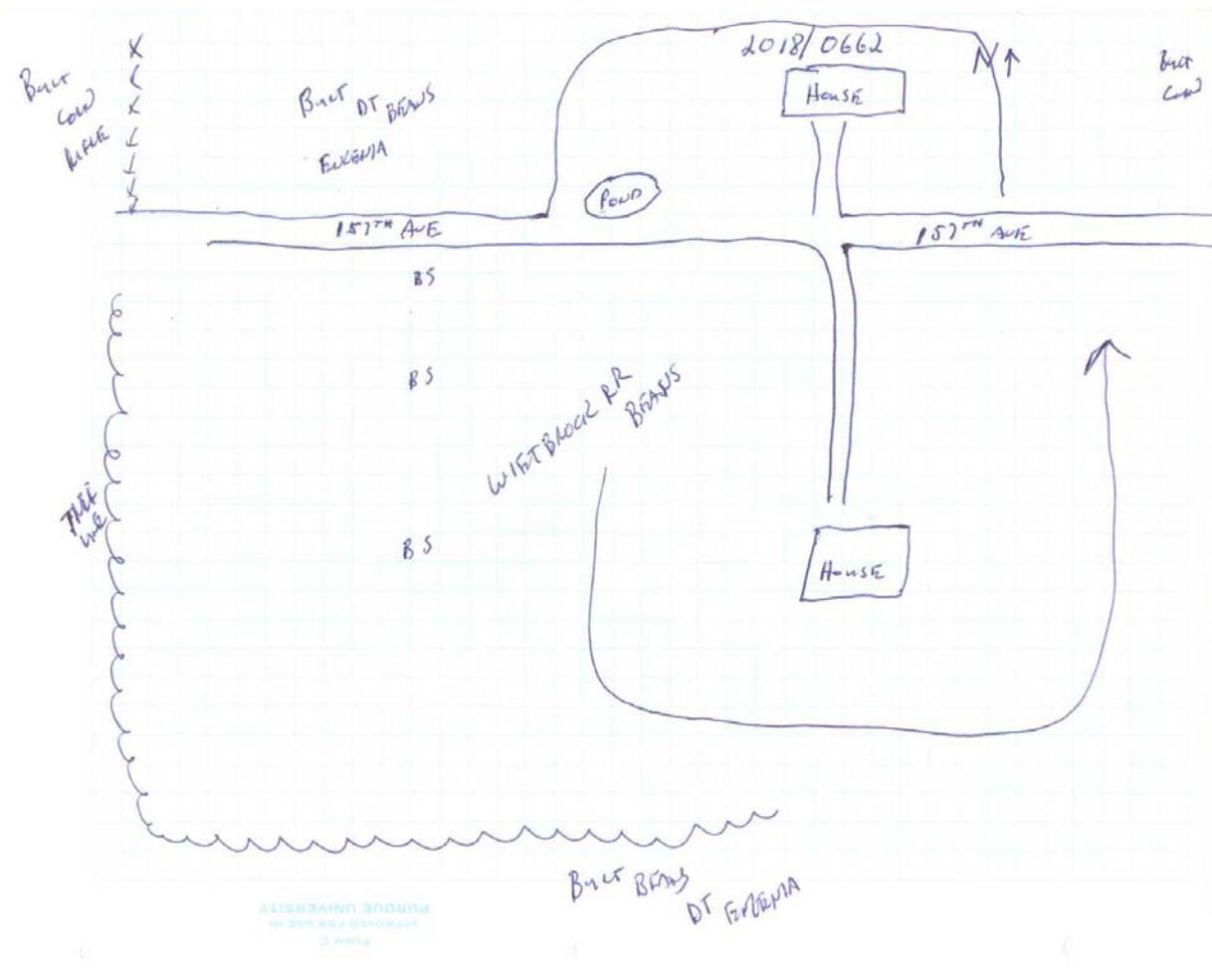
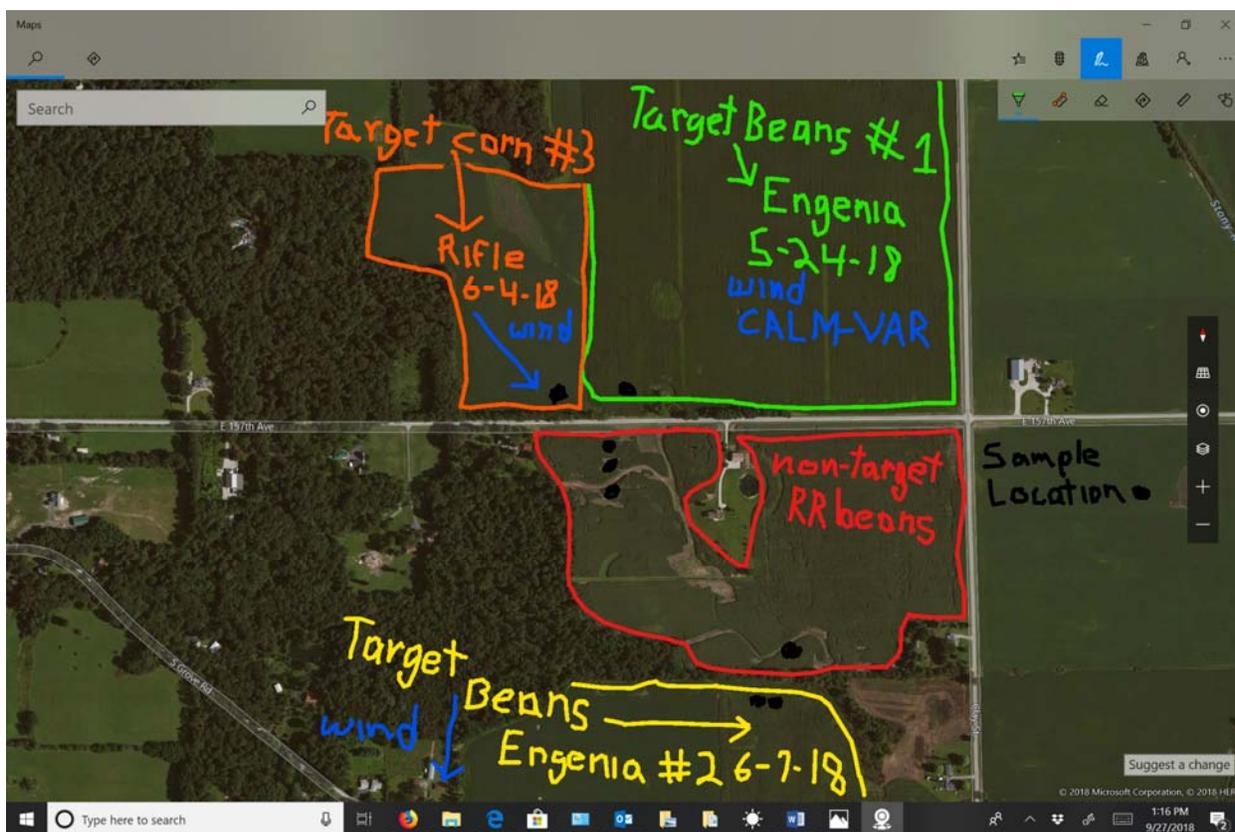


Figure Four



Kevin W Neal

Kevin W. Neal
Investigator

Date: September 27, 2018

Disposition: Case #2018/0662 - For the application made on **June 4, 2018**, Timothy Bult was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding applying in winds over five miles per hour blowing toward adjacent sensitive plants;

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the off-target drift restrictions on the label for the herbicide Rifle. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

Disposition: Case #2018/1008 - For the application made on **May 24, 2018**, Timothy Bult was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding:

1. Applying in winds less than three miles per hour;
2. Failure to check appropriate websites before application; and
3. Exceeding the 24-inch boom height restriction.

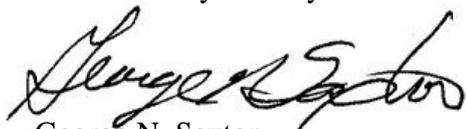
A civil penalty in the amount of \$100.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

Disposition: Case #2018/1009 - For the application made on **June 7, 2018**, Timothy Bult was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding:

1. Exceeding the maximum 24 inch boom height;
2. Failure to check appropriate websites before application.

Based on the evidence collected in this investigation, no violations of the Indiana pesticide laws or regulations were documented. Although off-target movement of the dicamba herbicide was documented, OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



George N. Saxton
Compliance Officer

Draft Date: November 26, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0669

Complainant: John Grigsby
12160 W 800 S
Owensville, Indiana 47665
812-453-8683

Respondent: Jason Motz Certified Applicator
Posey County Co-Op Licensed Business
151 Lockwood Street
Poseyville, Indiana 47633
812-874-2213

1. On June 20, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans. Mr. Grigsby stated this is the second complaint this year he has against Posey County Co-op. See case number 2018/0627
2. On June 22, 2018, I contacted John Grigsby via telephone. Mr. Grigsby stated he noticed his non-DT soybean field showing symptoms of dicamba injury. Mr. Grigsby stated the Posey County CoOp made an application of a dicamba product to the field directly to the south of his field across a county road.
3. On June 22, 2018, I contacted the Posey County Co-Op via telephone and spoke to Branch Manager Darrell Shemwell. I advised Mr. Shemwell I was a Pesticide Investigator for OISC and the complaint against Posey County Co-Op. Mr. Shemwell stated he had spoken to Mr. Grigsby and was aware of the complaint. Mr. Shemwell stated he contacted Mr. Grigsby prior to the application to confirm Mr. Grigsby had non-DT soybeans. Mr. Shemwell stated Posey County Co-Op made an application of Engenia to the field and on the day of the application, the wind was out of the south blowing towards Mr. Grigsby non-DT soybean field. Further, Mr. Shemwell stated he had his applicator leave a 120ft buffer on the north side of the field that borders Mr. Grigsby's field.
4. On June 25, 2018, I met with John Grigsby at his field located at 121122 West 875 South in Poseyville, Indiana.
5. During my on-site investigation I did the following:
 - a. Looked for, but did not find, any other potential sources of a growth regulator type herbicide application adjacent to Mr. Grigsby's soybean field. The target field bordered Mr. Grigsby's soybean field to the south with a county road separating the two fields (See Fig. 4).

- b. Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybean plants across Mr. Grigsby's soybean field (See Fig 1, 2, and 3). Symptoms were visible throughout Mr. Grigsby's soybean field. Symptoms were notably more severe on the south end of the field closet to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
- c. Collected samples of injured soybean plants from Mr. Grigsby's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
- d. Collected composite soil and vegetation samples from the target soybean field. Collected gradient soil and vegetation samples from Mr. Grigsby's soybean field (See Fig. 5). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

- Fig. 1 is Mr. Grigsby's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is Mr. Grigsby's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 3 is an overview of Mr. Grigsby's non-DT soybeans field showing mostly uniform cupped/puckered leaves and discolored leaf tips.
- Fig. 4 is looking west at the road dividing the two fields. Mr. Grigsby's field being on the right in the picture.



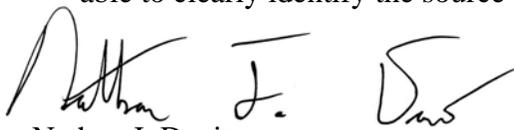
Fig. 5

- Fig. 5 is an aerial diagram of the fields including field property lines and where soil and vegetation samples were taken from.
6. On June 29, 2018 I received a completed Pesticide Investigation Inquiry from Mr. Shemwell which indicated the following:
- a. Certified Applicator: Jason Motz
 - b. Application Date and Time: June 8, 2018, 8:45am to 10:50am
 - c. Pesticide Applied: Tomahawk 4, EPA Reg. #33270-18, Glyphosate
Engenia, EPA Reg. #7969-345, Dicamba, 12.8oz/Acre
Cleanse 2EC, EPA Reg. #1381-204, Clethodim
 - d. Adjuvants: Oculus, Agridex, and Point Blank
 - e. Target Field Location and Size: Davis Farm, 151 Acres
 - f. Pre- or Post- Emergent Application: Post
 - g. Wind Direction at Boom Height: Start- S, End- S
 - h. Wind Speed at Boom Height: Start- 3mph, End- 3mph
 - i. Nozzles: Wilger UR 110-08
 - j. Boom Height: 24 to 30 Inches
 - k. Downwind Buffer: Yes, 120 ft. North Side, South Side, and East Side
 - l. Checked Registrants Website before application: Yes, June 7, 2018
 - m. Checked DriftWatch before application: Yes, June 7, 2018
 - n. Dicamba Mandatory Training Attended: Yes, January 24, 2018 #10682

7. According the Pesticide Investigation Inquiry during the application the wind was out of the south blowing in the direction of Mr. Grigsby's non-DT soybean field.
8. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*
9. OISC Residue Laboratory analyzed the soil and vegetation samples collected from the fields for glyphosate, dicamba, its breakdown products DCSA and 5-OH dicamba, and reported the following:

Case #	2018/0669		Investigator				N. Davis
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)				
			Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-39-9550	Target field #1 composite veg	Vegetation	**1140	170	**783	5410	139*
2018-39-9551	Target field #1 composite soil	Soil	Did not test	Did not test	Did not test	Did not test	Did not test
2018-39-9552	Comparable control composite veg	Vegetation	4.15	BDL	BDL	32.2	BDL
2018-39-9553	Comparable control composite soil	Soil	Did not test	Did not test	Did not test	Did not test	Did not test
2018-39-9554	Gradient #1 veg closest to target	Vegetation	7.23	BQL	BDL	BDL	BDL
2018-39-9555	Gradient #1 soil closest to target	Soil	Did not test	Did not test	Did not test	Did not test	Did not test
2018-39-9556	Gradient #2 veg	Vegetation	1.77	BDL	BDL	BDL	BDL
2018-39-9557	Gradient #2 soil	Soil	Did not test	Did not test	Did not test	Did not test	Did not test
2018-39-9558	Gradient #3 veg farthest from target	Vegetation	1.58	BDL	BDL	BDL	BDL
2018-39-9559	Gradient #3 soil farthest from target	Soil	Did not test	Did not test	Did not test	Did not test	Did not test
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC *Amount reported as approximate due to poor instrument stability. ** Amount reported as minimum detected due to concentration exceeding calibration curve range.							
LOQ (ppb)	Vegetation	0.4	0.4	2	5	125	
Signature						Date	08/21/18

10. The OISC Residue Laboratory analysis detected dicamba in the vegetation samples from Mr. Grigsby's non-DT soybean field. Glyphosate was below detection limits in Mr. Grigsby's non-DT soybean field.
11. The Pesticide Investigation Inquiry and laboratory reports indicate during the application the wind was out of the south blowing in the direction of Mr. Grigsby's non- DT soybean field. The label for *Engenia*, EPA Reg. #7969-345, Active Ingredient = *dicamba* states, "**DO NOT apply when wind is blowing in the direction of a neighboring sensitive crop**".
12. Based on the evidence collected in this investigation, it has been determined that Jason Motz failed to comply with the drift management restrictions on the label for the herbicide *Engenia*, EPA Reg. #7969-345, Active Ingredient = *dicamba*. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



Nathan J. Davis
Investigator

Date: September 11, 2018

Disposition: Jason Motz was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law. A civil penalty in the amount of \$500.00 was assessed for this violation. Consideration was given to the fact this was his second violation of similar nature. See case number 2018/0627. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide *Engenia*. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



George N. Saxton
Compliance Officer

Draft Date: October 30, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0675

Complainant: Irvin Daniel
3877 E 100 N
Lebanon, Indiana 46052
765-894-0922

Respondent: Zaccerie Sheldon Slater Certified Applicator
Nutrien Ag Solutions, Inc. (formerly Crop Production Service)
6550 S. New Brunswick Avenue
Lebanon, Indiana 46052
765-482-2190

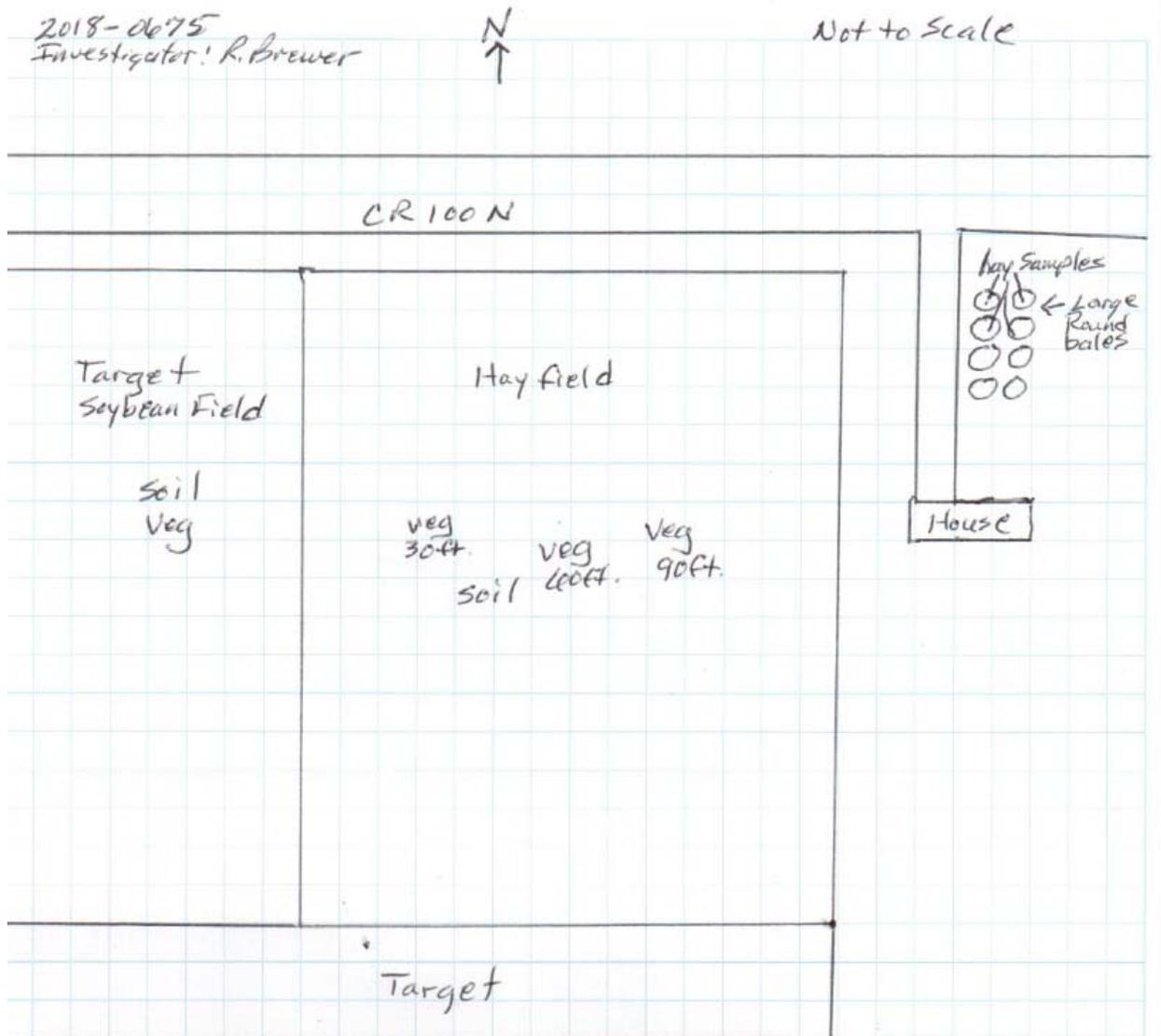
1. On June 21, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected agricultural pesticide drift from a bean field to his hay. He stated he checked the wind at the time of the application and the wind speed was 10 to 17 miles per hour.
2. On June 25, 2018, I met with Mr. Daniel at his residence. He advised me, on June 19, 2018 between 12:00 pm – 2:00pm, he observed Crop Production Service (CPS) making a pesticide application to the soybean field located directly west of his hay field. He stated the winds were blowing from the west /southwest around 10-17 mph. He stated he could see the mist drifting onto his hay field. He stated he moved the large round bales of hay out of the field that day and lined them along his driveway. I asked Mr. Daniel if he had applied any pesticides to his property and he stated he had not.
3. I then contacted Nutrien Ag Solutions, Inc and spoke with manager Brian Redmon. He stated they had made a pesticide application to the soybean field west of Mr. Daniel's hay field on June 19, 2018, starting at 12:15 pm and finishing at 1:50 pm. He stated Zaccerie Slater was the certified applicator that made the pesticide application. Mr. Redmon stated they applied Flexstar GT 3.5 herbicide EPA Reg. #100-1385 with the active ingredient glyphosate. I sent a Pesticide Investigation Inquiry (PII) to Mr. Redmon and requested he and the applicator complete and return to me. They did complete the PII and returned it to me. The PII confirmed the information provided to me by Mr. Redmon. The PII further indicated the winds at the start of the pesticide application were W at 7 mph and SW at 10 mph at the end of the application. The PII is in this case file.
4. I then took photographs of the area. I observed spotting on the vegetation in the hay field. I photographed the symptoms. I collected soil and vegetation samples from the target field as well as from the complainant's hay field. I also collected hay samples from the large round bales of which Mr. Daniel moved from his hay field. All of the samples were labeled and submitted to the OISC residue lab. I also collected a full alfalfa plant sample and submitted it to the Purdue Plant and Pest Diagnostic Lab (PPDL). The following photographs show the location of the target soybean field in relationship to Mr. Daniel's hay field. They also show the symptoms to the vegetation in Mr. Daniel's hay field.



5. I researched the Weather Underground website for the nearest weather reporting station. The website indicated on the date and time of the pesticide application, the winds were variable ranging from NNE, NE, NNW, NW, NNE at 3 – 12 mph. The temperature was 88.5-90.7 degree F. A copy of the weather report is in this case file.
6. On June 27, 2018, I received a report from PPDL. The report stated, “*Necrotic spotting on leaves is indicative of injury that can be caused by a contact herbicide*”. “*No apparent fungal pathogen was found to be associated with spotting on older leaves upon initial microscopic examination*”. A copy of the PPDL report is in this case file.
7. On July 27, 2018, I received a report from the OISC residue lab. The report indicated the active ingredient glyphosate was detected in the soil and vegetation samples collected from the hay field, as well as the hay samples collected from the large round bales. The following is a copy of the OISC residue lab report.

Case # 2018/0675		Investigator: B. Brewer		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)	
			Glyphosate	AMPA
2018-33-6114	Soil target field	Soil	Did not test	Did not test
2018-33-6115	Vegetation target field	Vegetation	Did not test	Did not test
2018-33-6116	Soil complt hay field	Soil	58.9	209
2018-33-6117	Hay sample from round bales	Vegetation	84.7	BDL
2018-33-6118	Vegetation complt hay field 30 ft.	Vegetation	202	BDL
2018-33-6119	Vegetation complt hay field 60 ft.	Vegetation	98.3	BDL
2018-33-6120	Vegetation complt hay field 90 ft.	Vegetation	114	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC				
LOQ (ppb)	Soil		5	50
LOQ (ppb)	Vegetation		5	25
Signature			Date	7/27/18

8. I researched the label for Flexstar GT 3.5 herbicide. On page three of the label, it states, "Do not apply when weather conditions favor drift from target area". On page 8 of the label, it states, "This pesticide is to be applied only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, non-target plants) is minimal (i.e., when the wind is blowing away from the sensitive area)". A copy of the label is in this case file.
9. The following is a diagram of the area, showing the relationship of the target field to the hay field and the sample collection locations.



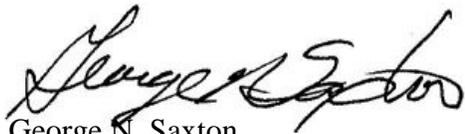
10. The results of the OISC residue lab report and the wind direction as indicated by the PII and the Weather Underground website, indicate the active ingredient glyphosate from the pesticide application made by Mr. Slater did drift off target and onto the complainant's property.

Robert D. Brewer

Robert D. Brewer
Investigator

Date: September 13, 2018

Disposition: Zaccerie Sheldon Slater was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$500.00 was assessed for this violation. Consideration was given to the fact this was his second violation of similar nature. See case number 2017/0985.



George N. Saxton
Compliance Officer

Draft Date: November 2, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0685

Complainant: Amy Beebe
5240 E. 400 N.
Van Buren, Indiana 46991
765-517-0327

Respondent: Richard Clark
Crop Production Services
423 E. 1000 S.
Warren, Indiana 46792
260-375-2770

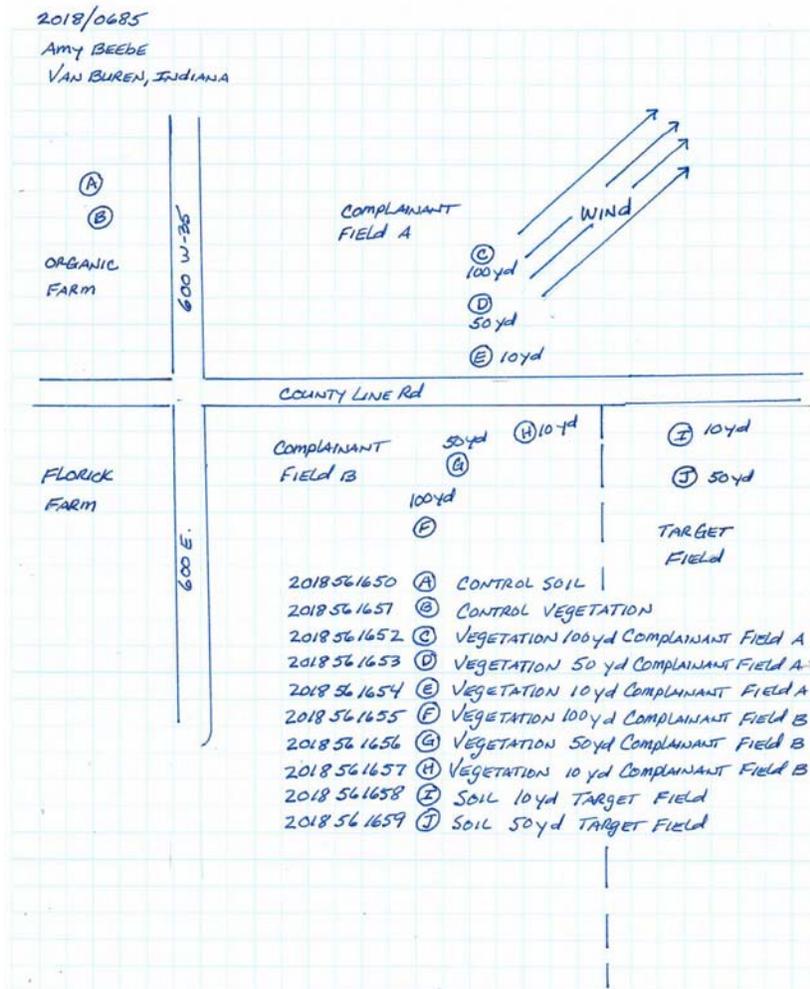
Licensed Applicator
Licensed Business

1. On June 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to her beans.
2. On June 28, 2018, I met with the complainant, Amy Beebe. She told me she believed a dicamba application was made to the neighboring farm fields, which impacted her Liberty Link (non-dicamba tolerant) beans causing the leaves to pucker. She was unsure of the extent of the damage but wanted to report it for documentation purposes.
3. I checked the fields she described. I observed herbicide growth regulator type symptoms of cupping and puckering to the leaves as the complainant described. The symptoms appeared to be uniform across the both fields. I obtained plant samples for submission to the Purdue Plant and Pest Diagnostic Lab (PPDDL) for analysis (see photos below):



4. I placed the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis:
 - **2018561650** Control soil
 - **2018561652** Vegetation 100yd field A
 - **2018561654** Vegetation 10yd field A
 - **2018561656** Vegetation 50yd field B
 - **2018561658** Soil 10yd target field
 - **2018561651** Control Vegetation
 - **2018561653** Vegetation 50yd field A
 - **2018561655** Vegetation 100yd field B
 - **2018561657** Vegetation 10yd field B
 - **2018561659** Soil 50yd target field

(see diagram below)



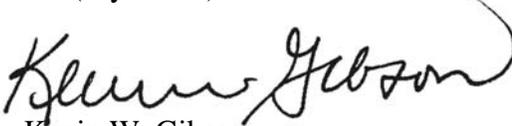
5. I learned Crop Production Services was responsible for the pesticide application to the neighboring field from the complainant's field. Crop Production Services agreed to submit a completed Pesticide Investigation Inquiry (PII) for the application in question.
6. I received the following information from PPPDL, "*Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba*"
7. I received a completed PII from applicator Richard Clark of Crop Production Services> According to Mr. Clark, he made a pesticide application of **Roundup Power Max** (EPA #524-549; active ingredient: glyphosate). **Warrant** (EPA #524-591; active ingredient: acetochlor) and **Xtendimax** (EPA #524-617; active ingredient: dicamba) on June 7, 2018 between 8:50am and 12:10pm to the field east and southeast of the complainant's field (see diagram above). He recorded the wind at 8-10 miles per hour in a north-northeasterly direction blowing toward the southeast portion of the complainant's field. In further review of the PII, the applicator failed to "*check Drift Watch for sensitive crops/sites*" as required by Xtendimax label.
8. I checked weather data for June 7, 2018 at www.wunderground.com for Grissom Air Force Base in Peru Indiana (33 miles west). According to the data, the wind was blowing at 8-10 miles per hour in a north-northeasterly direction toward the southeast portion of the complainant's field.

9. I received the following analysis results from the OISC Residue Lab:

Case #	2018/0685		Investigator			K. Gibson	
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)				
			Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-56-1650	Control soil	Soil	Not tested	Not tested	Not tested	Not tested	Not tested
2018-56-1651	Control vegetation	Vegetation	BQL	BDL	BDL	BDL	BDL
2018-56-1652	Vegetation 100 yd complainant field A	Vegetation	0.621	BDL	BDL	BDL	BDL
2018-56-1653	Vegetation 50 yd complainant field A	Vegetation	0.724	BDL	BDL	BDL	BDL
2018-56-1654	Vegetation 10 yd complainant field A	Vegetation	1.07	BDL	BDL	BDL	BDL
2018-56-1655	Vegetation 100 yd complainant field B	Vegetation	0.524	BDL	BDL	BDL	BDL
2018-56-1656	Vegetation 50 yd complainant field B	Vegetation	1.00	BDL	BDL	BDL	BDL
2018-56-1657	Vegetation 10 yd complainant field B	Vegetation	1.45	0.588	BDL	30.4	BDL
2018-56-1658	Soil 10 yd target field	Soil	BQL	6.18	BDL	672	360
2018-56-1659	Soil 50 yd target field	Soil	11.6	65.7	BDL	1344	960
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC							
LOQ (ppb)	Vegetation		0.4	0.4	2	10	125
LOQ (ppb)	Soil		2	2	2	5	50
Signature						Date	9/16/18

10. The label for **Xtendimax** reads in part, ***“DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops, the includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON.”*** and ***“Before making an application, the applicator must survey the application site for adjacent non-target susceptible crops, The applicator must also consult applicable sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site”***.

11. After reviewing all available information, applicator Richard Clark is in violation of the Xtendimax label for failure to check a sensitive crop registry (**Drift Watch**) and for making an application of **Xtendimax** when the wind was blowing toward an adjacent non-dicamba tolerant susceptible crop (soy beans).


 Kevin W. Gibson
 Pesticide Investigator

Date: November 14, 2018

Disposition: Richard Clark was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$1,000.00 was assessed for this violation. Consideration was given to the fact this was his fourth violation for drift management. See case numbers 2015/0930, 20171080 and 20171081.



George N. Saxton
Compliance Officer

Draft Date: December 11, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0690

Complainant: Noel Hunt
7955 E 1200 S
Amboy, Indiana 46911
765-251-0775

Respondent: Co-Alliance Herbst
Bruce Horner
Ty Breedlove
Matt Van Osdell
2655 S 600 W
Marion, Indiana 46953
765-384-4306

Licensed Business
Certified Applicator/Sales
Registered Technician/Applicator
Manager

1. On June 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On June 26, 2018, I contacted the Complainant, Noel Hunt, via telephone. Mr. Hunt informed me that he had noticed what looked to be damage from dicamba on his Liberty Soybeans. Mr. Hunt informed me that he does not use any dicamba products, and that he applied Round-Up, Intensity, and Liberty. Mr. Hunt stated that Ted Oiler farms a field just to the south of his and he believes he sprays dicamba. Mr. Hunt stated that the symptoms in his field are just across the road from Mr. Oyler's field.
3. On June 26, 2018, I was able to contact Mr. Oyler via telephone. I informed Mr. Oyler of the complaint that was received from Mr. Hunt. Mr. Oyler stated that he did not make a dicamba application. Mr. Oyler also informed me that he does not have dicamba tolerant soybeans in his field and that in the same area where Mr. Hunt has symptoms of dicamba injury, he also has symptoms of dicamba injury. Mr. Oyler informed me that Co-Alliance Herbst has made a dicamba application in the adjacent field. Mr. Oyler did not wish to make a complaint with OISC, but stated rather that he has already contacted Co-Alliance and informed them of the damage to his field.
4. On June 28, 2018, Agent Joe Becovitz and I met with the complainant Noel Hunt at his residence. Mr. Hunt was able to show me on a map exactly where his field was and where the symptoms were. The field is located on the north side of 400 north, ¼ mile west of State Road 13 in Grant County. I explained to Mr. Hunt that I would be collecting soil and vegetation samples to take to the lab for analysis. Agent Joe Becovitz and I then drove to Mr. Hunts Field.
5. During the on-site investigation I did the following:
 - a. Observed and photographed cupping and puckering of the soybean leaves in the complainant's field. I also observed that there was a visual gradient pattern of the cupping and puckering. The most severe injury was closest to 400 north. The injury lessened as I walked through the field to the north. These symptoms are associated with growth regulator type herbicides such as dicamba.

- b. Looked for other potential sources of an application of growth regulator herbicides but did not see any given the localized area of the growth regulator injury.
- c. Collected a composite soil sample from the target soybean field. Collected gradient vegetation samples and a soil sample from Mr. Hunt's soybean field. Also collected a soil sample from Mr. Oyler's field (See Fig. 3). The residue samples were submitted to the OISC Residue Laboratory for analysis.
- d. Collected samples of injured soybean plants from Mr. Hunt's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDL).



Fig. 1



Fig. 2

- Fig. 1-2) Mr. Hunt's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.

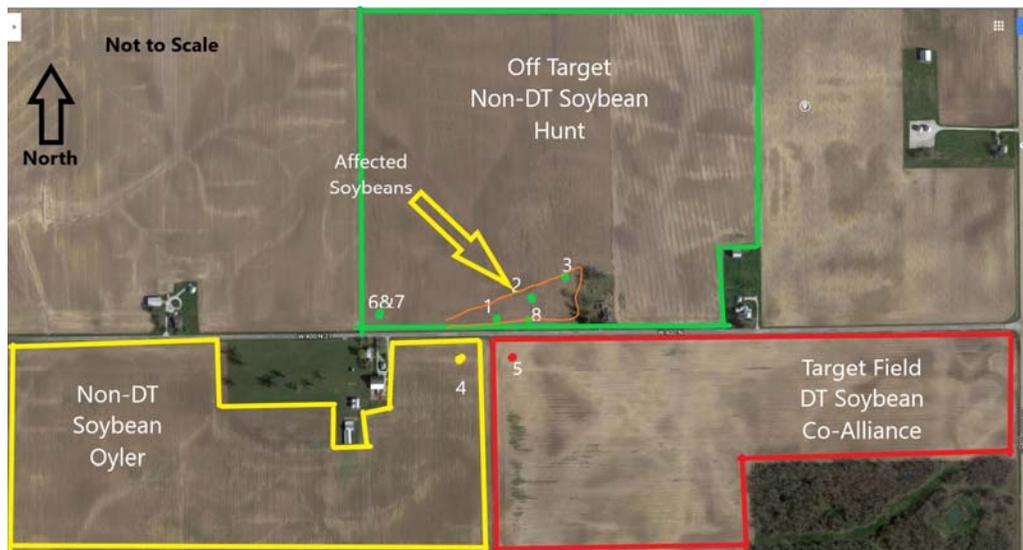


Fig. 3

- Fig. 3) is an aerial diagram of the fields including approximate field property lines and where soil and vegetation samples were taken from.
6. After my on-site investigation, I met with Matt Van Osdell, the manager of Co-Alliance Herbst Branch in Marion, Indiana. I presented my OISC credentials and informed Mr. Van Osdell of the complaint. Mr. Van Osdell and I were able to look at an aerial map and confirm that Co-Alliance does make pesticide applications to the target field in question. Mr. Van Osdell stated that Co-Alliance made two pesticide applications to the field due to unfavorable weather conditions. I then presented Mr. Van Osdell a pesticide investigation inquiry (PII), and instructed him to complete the form for both pesticide applications and return to me within 15 days.

7. On June 13, 2018, I received two completed Pesticide Investigation Inquiry from Mr. Van Osdell. The PII for the May 24, 2018 pesticide application indicates the following:
- Registered Technician: Ty Breedlove
 - Application Date and Time: May 24, 2018, 10:10am to 10:45am
 - Pesticide Applied: Roundup PowerMax, EPA Reg. #524-549, Glyphosate Xtendimax, EPA Reg. #524-617, Dicamba, 22oz/acre Warrant, EPA Reg. #524-591, Acetochlor
 - Adjuvants: Astonish, Capsule
 - Target Field Location and Size: East side of field sprayed, 26 acres
 - Pre- or Post- Emergent Application: Post
 - Wind Direction at Boom Height: Start- SW, End- SW
 - Wind Speed at Boom Height: Start- 5mph, End- 8mph
 - Nozzles: Wilger UR 110-08
 - Boom Height: 24 Inches
 - Downwind Buffer: 35 acres to west of App
 - Checked Registrants Website before application: Yes, May 24, 2018
 - Checked DriftWatch before application: Yes, May 24, 2018
 - Dicamba Mandatory Training Attended: Yes, February 6, 2018
8. The second pesticide application made by Co-Alliance will be reported in case 2018/1029.
9. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*
10. The OISC Residue Laboratory analyzed the soil and vegetation samples collected from the fields for Acetochlor and reported the following:

Case #	2018/0690		Investigator		G. Creason	
Sample #	Sample Description	Amount of Analyte (ng/swab or ppb)				
		Matrix	Acetochlor	Dicamba	5-OH Dicamba	DCSA
2018-37-8001	Nontarget field vegetation soybean sample Noel Hunt most impacted	Vegetation	BQL	Did not test	Did not test	Did not test
2018-37-8002	Nontarget field vegetation soybean sample Noel Hunt somewhat impacted	Vegetation	3.08	Did not test	Did not test	Did not test
2018-37-8003	Nontarget field vegetation soybean sample Noel Hunt least	Vegetation	BQL	Did not test	Did not test	Did not test
2018-37-8004	Ted Oyler nontarget field soil sample Grab sample	Soil	BQL	Did not test	Did not test	Did not test
2018-37-8005	Target field Grab sample soil	Soil	328	Did not test	Did not test	Did not test
2018-37-8006	Comparative control Grab sample soil	Soil	63.2	Did not test	Did not test	Did not test
2018-37-8007	Comparative control vegetation sample	Vegetation	6.61	Did not test	Did not test	Did not test
2018-37-8008	Nontarget field Grab sample soil	Soil	256	Did not test	Did not test	Did not test
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC						
LOQ (ppb)	Soil		7	Did not test	Did not test	Did not test
LOQ	Vegetation		3	Did not test	Did not test	Did not test
Signature				Date	11/20/18	

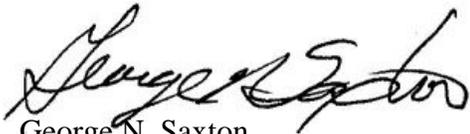
11. The OISC residue laboratory analysis detected acetochlor in the vegetation and soil samples from Mr. Hunt's non-DT soybean field. I contacted Mr. Hunt via telephone and he confirmed that he did not make any pesticide applications with products containing acetochlor.
12. The wind data along with Mr. Breedlove's statements indicate during both of the applications the wind direction was out of the south west towards Mr. Hunt's field. The label for *Xtendimax*, EPA Reg. #524-617, Active Ingredient = dicamba states, "**DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**" The Label for *Warrant*, EPA Reg. #524-591, Active Ingredient= *Acetochlor* states "**Do not apply when wind conditions favor drift to non-target site**"
13. Based on the evidence collected in this investigation, it has been determined that Ty Breedlove failed to comply with the drift management restrictions on the label for the herbicide *Xtendimax*, EPA Reg. #524-617, Active Ingredient = dicamba. Mr. Breedlove also failed to comply with the Use Restrictions on the label for the herbicide *Warrant*, EPA Reg. #524-591, Active Ingredient = *Acetochlor*.



Garret A. Creason
Investigator

Date: December 4, 2018

Disposition: Bruce Horner and Ty Breedlove were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: January 14, 2019
Final Date: February 18, 2019

CASE SUMMARY

Case #2018/0691

Complainant: Bill Kessinger
14577 N. SR 13
Elwood, Indiana 46036
765-425-1485

Respondent: Brent Floyd
8727 W 1400 N
Elwood, Indiana 46036
765-620-2155
Private Applicator

1. On June 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On June 27, 2018, I met with Mr. Kessinger at his residence. He took me to his non-dicamba tolerant soybean field located behind his residence. He stated Mr. Brent Floyd had made a pesticide application to the soybean field to the north of his soybean field the first of June. He stated he had spoken with Mr. Floyd and learned he had applied Engenia herbicide to his field. Mr. Kessinger stated he was concerned the dicamba from the Engenia had drifted or moved onto his soybean field, as he had cupping and curling of the leaves on his soybeans. I asked Mr. Kessinger, if he had applied any pesticides to his beans and he stated he had not applied anything post emergent to his soybeans.
3. I then observed Mr. Kessinger's soybean field. I did observe cupping and curling of the leaves on the soybeans. There was a fencerow dividing the two fields. The symptoms to Mr. Kessinger's soybeans appeared to be in a uniform pattern across his field from the north proceeding south. I took photographs of the scene and of the symptoms to Mr. Kessinger's soybeans. I then collected soil and vegetation samples from the target soybean field and vegetation samples from the fencerow and from Mr. Kessinger's soybean field at intervals of 50 feet, 100 feet and 150 feet in from the target field. I also collected a comparison vegetation sample at 300 feet in from the target field. All of the samples were labeled and submitted to the OISC Residue Lab. I further collected a full soybean plant sample from Mr. Kessinger's soybean field, which I submitted to the Purdue Plant and Pest Diagnostic Lab (PPDL). The following photographs show the location of the target field to the complainant's field and of the symptoms to the complainant's soybeans.





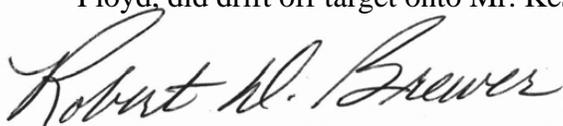
4. I then met with Mr. Floyd at his residence. He advised me he had made two pesticide applications to the target soybean field. He stated he applied a tank mix of Engenia herbicide EPA Reg. #7969-345 with the active ingredient dicamba, Round Up Power Max herbicide EPA Reg. #524-549 with the active ingredient glyphosate, Zidua herbicide EPA Reg. #7969-388 with the active ingredient pyroxasulfone and Volunteer herbicide EPA Reg. #42750-72-55467 with the active ingredient clethodim. He stated he had made the first application on June 1, 2018 between 8:45 am – 9:45 am. He stated the winds were blowing from the SW at 3 – 5 mph. He stated during this first application, he did the west part of his field and the part just south of the wind turbine. He stated he felt the winds were changing, so he decided to stop the application for the day and come back another time. He stated he sprayed to the south border of his field as the winds were blowing away from Mr. Kessinger’s field. Mr. Floyd stated he came back on June 2, 2018 between 2:15 pm – 3:00 pm to finish the NE part of his field. He stated the winds were blowing E, NE at 5 mph at the time of the second application. He stated he used his field as 100 % of the needed buffer per the label for Engenia herbicide. Mr. Floyd provided me with the required records for Engenia herbicide and what he had followed per the label and state requirements for applying Engenia herbicide. This record is in this case file. I sent a Pesticide Investigation Inquiry (PII) to Mr. Floyd, which he received, completed and returned to me. The PII confirmed the previous information provided to me by Mr. Floyd. The PII is in this case file.
5. On June 28, 2018, I received a report from PPD. The report indicated, *“Cupped/pucker-ed leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba”* *“No primary infectious bacterial or fungal disease was found to be associated with the symptoms on this sample”*. The PPD report is in this case file.
6. I researched the Weather Underground Website for the weather conditions on the date and times of the pesticide applications. I used triangulation from the three nearest weather reporting stations from the target field. I used KINELWOO7 located south of the target field, KINSUMMI4 located NE of the target field and KINWINDF3 located NW of the target field. The stations indicated on June 1, 2018 during the time of the application, the winds were variable from S, SW, SSE at 3 – 7 mph. On June 2, 2018, the stations indicated during the time of the application, the winds were variable from E, N, NE, at 3 – 5 mph. Copies of the weather reports are in this case file.
7. I was unable to locate any other dicamba applications in the immediate area, which may have impacted Mr. Kessinger’s field.
8. On September 27, 2018, I received a report from the OISC Residue Lab. The report indicated all of the active ingredients were detected in the vegetation samples collected from the target field and the fencerow. The active ingredients clethodim, dicamba and glyphosate were detected in the vegetation sample collected 50 feet into Mr. Kessinger’s soybean field. The following is a copy of the OISC Residue Lab report.

Case # 2018/0691						Investigator	B. Brewer				
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)								
			Pyoxasulfone	Clethodim/ Clethodim sulfone/ Clethodim sulfoxide	Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA		
2018-33-6124	Soil target	Soil	N/A	NA	NA	NA	NA	NA	NA	NA	
2018-33-6125	Vegetation soybean target	Vegetation	1.85	2.01/841/6000*	BDL	36.3	BDL	32400	589		
2018-33-6126	Vegetation weeds fence row	Vegetation	28.0	2.84/163/573	5310*	12.8	BDL	7630	58.6		
2018-33-6127	Vegetation soybean complt's field 50 ft in	Vegetation	BDL	BDL/BQL/3.20	1.80	BDL	BDL	58.7	BDL		
2018-33-6128	Vegetation soybean complt's field 100 ft in	Vegetation	BDL	BDL/ BDL/ BQL	BQL	BQL	BDL	BDL	BDL		
2018-33-6129	Vegetation soybean complt's field 150 ft in	Vegetation	BDL	BDL/ BDL/ BDL	BQL	BDL	BDL	BDL	BDL		
2018-33-6130	Vegetation soybean complt's field comparison sample 300 ft	Vegetation	BDL	BDL/ BDL/ BDL	BQL	BDL	BDL	BDL	BDL		
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC; NA=data not available * amount reported as minimum detected due to concentration exceeding calibration curve range.											
LOQ (ppb)	Vegetation		0.7	1/0.5/0.5	1	0.4	2	10	25		
Signature							Date	9/27/18			

9. The following is a diagram of the target field location to the complainant's field. It also indicates wind direction.



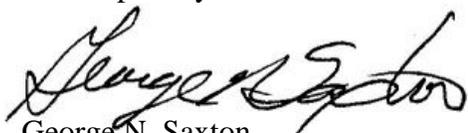
10. The label for Engenia herbicide states in part, *“Do not apply when wind is blowing in the direction of neighboring sensitive crops. Sensitive crops include, but are not limited to: non- DT beans”*. The label for RoundUp Power Max herbicide states, *“Avoid contact of this herbicide with foliage, stems, exposed non-woody roots or fruit of crops, desirable plants and trees”*.
11. The results of the OISC residue lab along with the weather report indicate the active ingredients found in Engenia herbicide and Round Up Power Max herbicide from the application made by Mr. Floyd, did drift off target onto Mr. Kessinger’s property.



Robert D. Brewer
Investigator

Date: November 29, 2018

Disposition: Brent Floyd was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: December 13, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/0696

Complainant: John Little
10739 S. 700 W.
Marion, Indiana 46952
260-359-6258

Respondent: Todd Hinshaw
6556 N. 700 E.
Van Buren, Indiana 46991
765-243-0667

Private Applicator

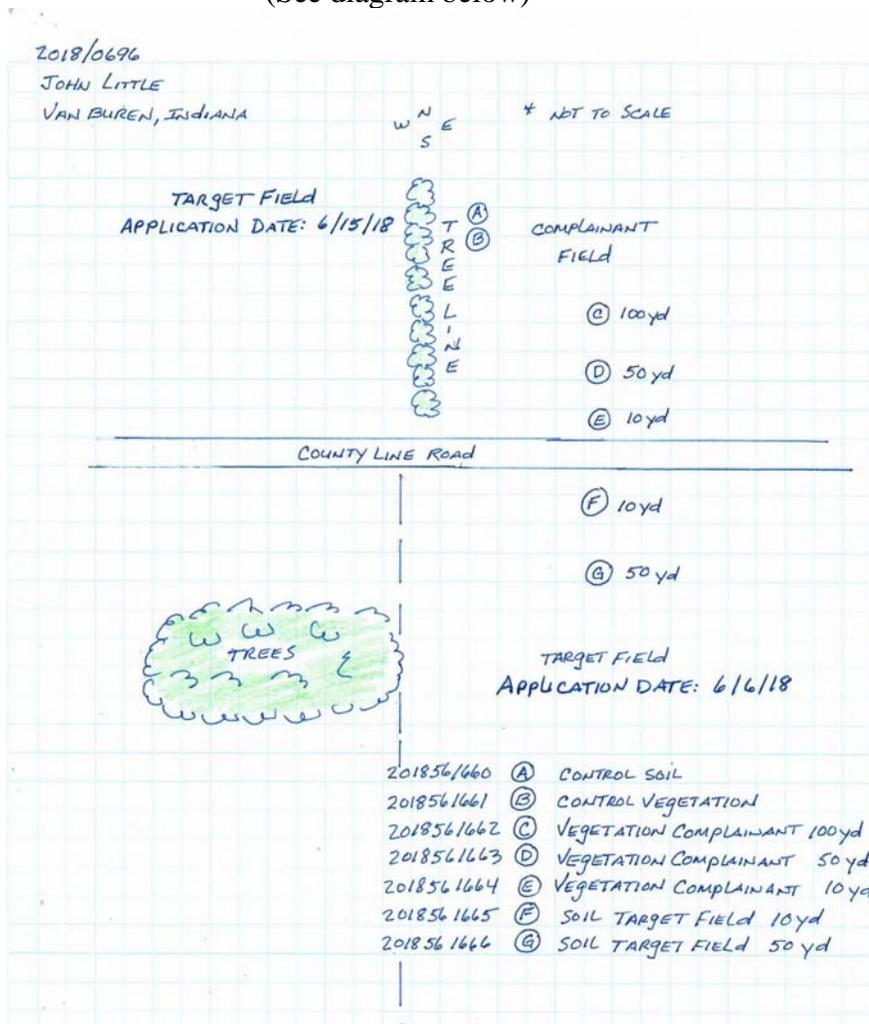
1. On June 27, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On June 28, 2018, I met with the complainant, John Little. He reiterated he believed the neighboring farmer made a dicamba application, which impacted his non-dicamba tolerant soybeans (non-DT beans).
3. I checked the complainant's soybean field for pesticide exposure symptoms. I observed cupped/puckered soybean leaves. The symptoms appeared to be uniform across the complainant's field. I obtained soybean samples from the complainant's field for submission to the Purdue Plant and Pest Diagnostic Lab (PPPL) for analysis. (See photos below)



4. I placed the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis:
 - 2018561660 Control soil
 - 2018561661 Control vegetation
 - 2018561662 Vegetation complainant field 100 yds.

- 2018561663 Vegetation complainant field 50 yds.
- 2018561664 Vegetation complainant field 10 yds.
- 2018561665 Soil target field 10 yds.
- 2018561666 Soil target field 50 yds.

(See diagram below)



- I learned Todd Hinshaw of Van Buren, Indiana made the pesticide application to the field(s) in question. He agreed to submit a completed Pesticide Investigation Inquiry (PII) for his pesticide application.
- I received the following information from PPPDL: “Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba. One set of trifoliates was strapped, which is indicative of a different growth regulator like 2,4-D or clopyralid. But every other injured leaf was dicamba injury”.
- I received a completed PII from Todd Hinshaw for two (2) pesticide applications to fields south and west of the complainant’s field. According to one of the PIIs, Mr. Hinshaw made a pesticide application of **Engenia** (EPA #7969-345; active ingredient: dicamba), **Powermax** (EPA #524-549; active ingredient: glyphosate), **Select** (38167-39-5905; active ingredient: clethodim) and **Zidua** (EPA #7969-338; active ingredient: pyroxasulfone). The application was made on June 6, 2018,

between 3:46pm and 6:00pm. He recorded the wind blowing at 2 miles per hour at the beginning of the application and 5 miles per hour at the end of the application in a southeasterly direction away from the complainant's field. (See diagram above)

8. According to the second PII, Mr. Hinshaw made a pesticide application of **Engenia** (EPA #7969-345; active ingredient: dicamba), **Powermax** (EPA #524-549; active ingredient: glyphosate), **Select** (38167-39-5905; active ingredient: clethodim) and **Zidua** (EPA #7969-338; active ingredient: pyroxasulfone) on June 15, 2018, between 9:40am and 10:56am. He recorded the wind blowing at 4 miles per hour at the beginning of the application and 2 miles per hour at the end of the application in a southeasterly direction toward the southwest portion of the complainant's field. (See diagram above)
9. In further review of the PII, the applicator completed the record keeping elements required by the **Engenia** label
10. The label for **Engenia** reads in part, "**DO NOT** apply when wind is blowing in the direction of neighboring sensitive crops", and "**Wind Speed and Direction Requirements- Wind Speed- 3 to 10 mph**"
11. After reviewing all available information, Mr. Hinshaw is in violation of the **Engenia** label when he applied it while the wind was blowing toward the complainant's property as recorded on the PII. He also violated the **Engenia** label when he applied it while the wind was blowing at 2 miles per hour as recorded on the PII.



Kevin W. Gibson
Pesticide Investigator

Date: December 7, 2018

Disposition: Todd Hinshaw was cited for two (2) counts of violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$200.00 (2 counts x \$100.00 per count) was assessed.



George N. Saxton
Compliance Officer

Draft Date: December 13, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/0712

Complainant: Brian Warpup
3344 E 700 S
Warren, Indiana 46792
260-375-6061

Respondent: Chris Geiger
720 W. Logan Street
Markle, Indiana 46770
260-820-0160

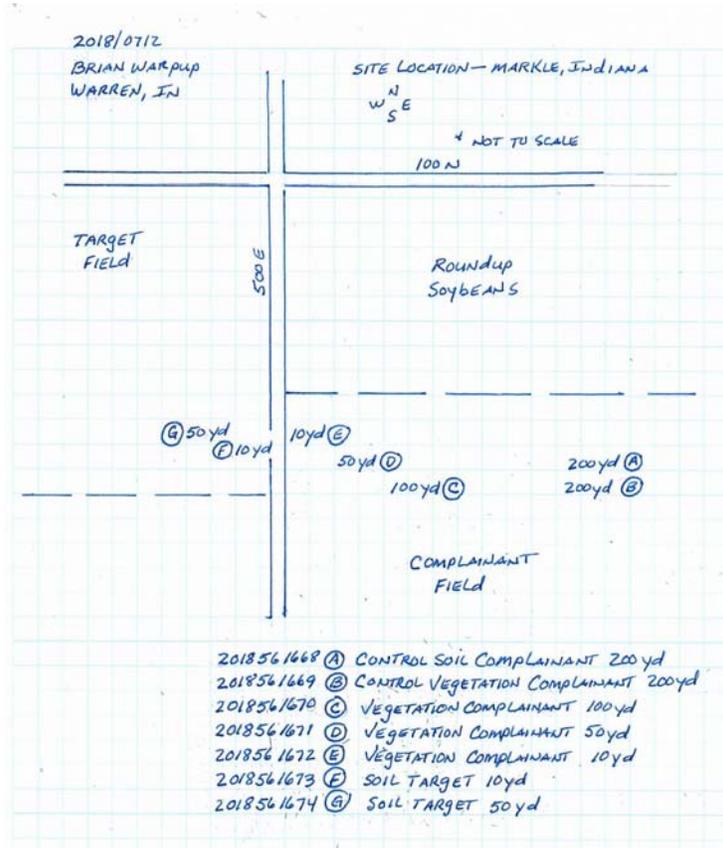
Private Applicator

1. On June 28, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his Liberty beans. He stated about two to five acres were involved.
2. On July 5, 2018, I met with the complainant, Brian Warpup. He reiterated he believed a dicamba application was made to the field northwest of his field, which had impacted his non-dicamba tolerant (non-DT) beans. I checked the impacted field in questions. I did observe soybean leaves exhibiting pesticide exposure symptoms of cupping and puckering. It also appeared to be uniformly impacted across the majority of the complainant's field,
3. I obtained some soybeans plants from the complainant's field for submission to the Purdue Plant and Pest Diagnostic Lab (PPPDL) for analysis. (see photos below)



4. I placed the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis:
 - 2018561668 Control soil complainant 200 yds.
 - 2018561669 Control vegetation complainant 200 yds.
 - 2018561670 Vegetation complainant 100 yds.
 - 2018561671 Vegetation complainant 50 yds.
 - 2018561672 Vegetation complainant 10 yds.
 - 2018561673 Soil target field 10 yds.
 - 2018561674 Soil target field 50 yds.

(see diagram below)



5. I learned Chris Geiger made a pesticide application to the field located northwest of the complainant's impacted field. I made contact with Mr. Geiger. He agreed to submit a completed Pesticide Investigation Inquiry (PII) for his application.
6. I received the following information from PPPDL: *"Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba"* and *"Brown spot was noted, but there was no evidence of significant disease in the sample. The yellow spots between the leaf veins are not due to dicamba but may be related to a nutrient problem"*
7. I received a completed PII from applicator Chris Geiger. According to the PII, Mr. Geiger made a pesticide application of **Engenia** (EPA #7969-345; active ingredient: dicamba), **Zidua** (EPA #7969-338; active ingredient: saflufenacil, imazethapyr, pyroxasulfone), **PowerMax** (EPA #524-549; glyphosate) and **Tapout** (EPA #5905-578; active ingredient: clethodim) on June 7, 2108 between 7:30am and 8:30am. He recorded the wind blowing 4.4 miles per hour in an east-northeasterly direction toward a small northwest portion of the complainant's field. (See diagram above). In further review of the PII, I found Mr. Geiger completed all of the **Engenia** label record keeping requirements.
8. I obtained the following weather data from www.wunderground.com:
 - According to the weather data for Fort Wayne International Airport in Fort Wayne Indiana (22 miles northeast) on June 7, the wind was blowing 8 miles per hour in a north direction parallel to the complainant's field.

- According to the weather data for Fulton County Airport in Rochester Indiana (44 miles west), on June 7, the wind was blowing 3 to 6 miles per hour in a north-northeasterly direction toward a small northwest portion of the complainant's field.
- According to the weather data for Delaware County Airport in Muncie Indiana (44 miles south) on June 7, the wind was blowing 8 to 10 miles per hour in an east-southeasterly direction toward a small northwest portion of the complainant's field.

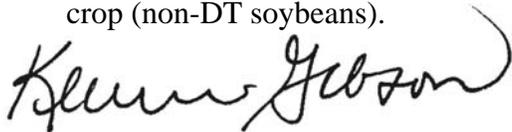
9. I received the following analysis results from the OISC Lab:

Case # 2018/0712			Investigator: K. Gibson			
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)			
			Pyrozasulfone	Dicamba	DCSA	5-OH Dicamba
2018-56-1668	Control soil 200 yds complainant field	Soil	6.27	Not tested	Not tested	Not tested
2018-56-1669	Control vegetation 200 yds complainant field	Vegetation	BDL	0.578	BDL	BDL
2018-56-1670	Vegetation 100 yds complainant field	Vegetation	BDL	0.540	BDL	BDL
2018-56-1671	Vegetation 50 yds complainant field	Vegetation	BDL	0.933	BDL	BDL
2018-56-1672	Vegetation 10 yds complainant field	Vegetation	BDL	2.04	BDL	BDL
2018-56-1673	Soil 10 yds target field	Soil	Not tested	Not tested	Not tested	Not tested
2018-56-1674	Soil 50 yds target field	Soil	Not tested	Not tested	Not tested	Not tested
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC						
LOQ (ppb)	Vegetation		3	0.4	0.4	2
LOQ (ppb)	Soil		0.3	Not tested	Not tested	Not tested
Signature			Date	10/15/18		

10. I reviewed the lab analysis results. Sample 2018561668 indicated 6.27 ppb for pyrozasulfone, an active ingredient for Zidua. However, samples 2018561669, 2018561670, 2018561671 and 2018561672 were “BDL” (below detectable limits). I contacted the complainant. Mr. Warpup told me he made an application of Zidua in one of his other farm fields. He said he did not make an application of Zidua in the impacted field in question. He did say it was possible to have some Zidua residue in his spray equipment when made a pesticide application to the impacted field in question, which would explain the Zidua present in sample 2018561668. I made contact with the OISC lab director. She told me the analysis results for the active ingredient dicamba (**Engenia**) were not significant to indicate a drift pattern.

11. The label for **Engenia** reads in part, “**DO NOT** apply when wind is blowing in the direction of neighboring sensitive crops”.

12. After reviewing available information, on the PII Mr. Geiger recorded the wind blowing 4.4 miles per hour in an east-northeasterly direction toward a small northwest portion of the complainant's field at the beginning of the application. Therefore, Mr. Geiger is in violation of the **Engenia** label because he applied it when the wind was blowing in the direction of the complainant's sensitive crop (non-DT soybeans).



Kevin W. Gibson
Investigator

Date: November 16, 2018

Disposition: Chris Geiger was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: December 12, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/0721

Complainant: Larry Bredewater
6569 S 550 E
Greensburg, Indiana 47240
812-614-1435

Respondent: Glen Bohman Private Applicator
5918 W. Brownstown Road
Osgood, Indiana 47037
812-614-0656

1. On the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 5, 2018, I met with the complainant, Larry Bredewater, at his farm in Greensburg, Indiana. Mr. Bredewater requested that I follow him to the field that he believes was drifted onto by dicamba. I followed Mr. Bredewater to a field located next to the intersection of County Road 725N and 900W in Ripley County. Mr. Bredewater's field is located directly east of this intersection. Mr. Bredewater informed me that he planted Becks RoundUp Ready soybeans on May 15, 2018 and that he has not made any pesticide applications to this field since planting. Mr. Bredewater informed me that Glen Bohman farms directly to the west across 900N and that he believes that is where the damage to his field came from. I informed Mr. Bredewater that I would be collecting soil and vegetation samples for analysis. Mr. Bredewater then left for the remainder of my on-site investigation.
3. During my on-site investigation I did the following:
 - a. Looked for, but did not find, any other potential sources of a growth regulator type herbicide application adjacent to Mr. Bredewater's soybean field. The target field was directly to the west of Mr. Bredewater's soybean field with a road separating the two fields. (Fig. 2)
 - b. Observed and photographed (Fig. 1), a gradient pattern from west to east/east northeast, of cupping and puckering of leaves on non-DT soybean plants across Mr. Bredewater's soybean field. Symptoms were notably more severe on the west end of the field closet to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Bredewater's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDL)
 - d. I collected a composite soil sample from the target soybean field. Collected gradient soil and vegetation samples from Mr. Grigsby's soybean field. The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2

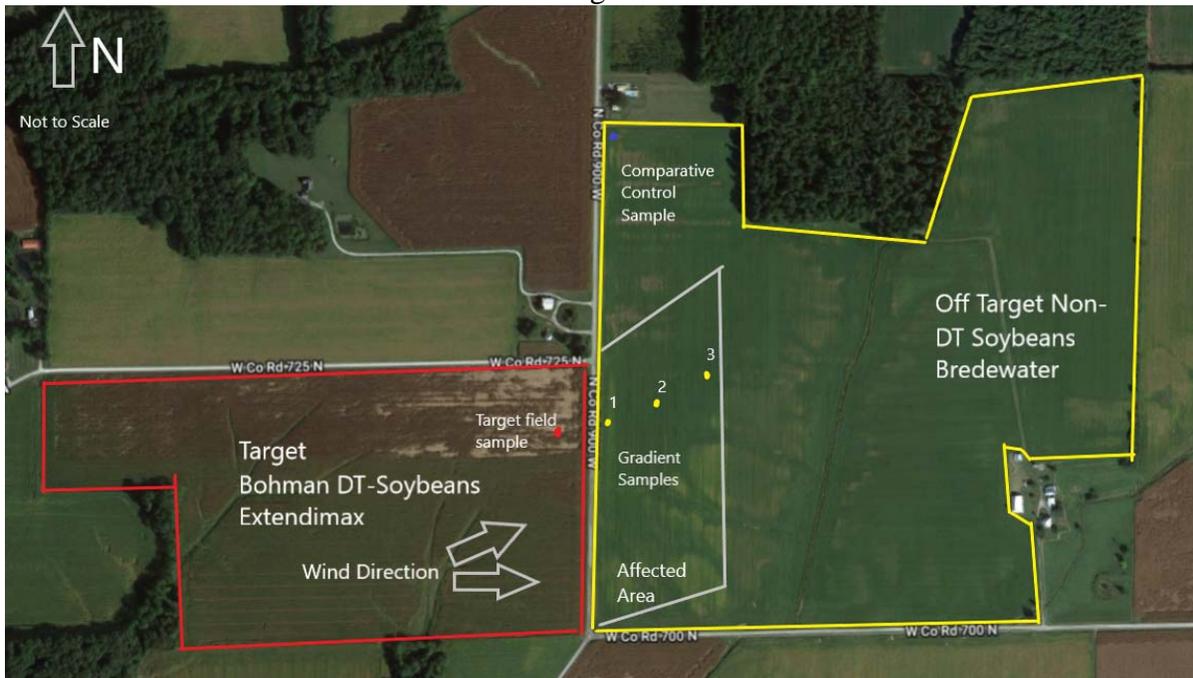


Fig. 3

- Fig. 1 is Mr. Bredewater's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
 - Fig. 2 is in Mr. Bredewater's non-DT soybean field looking at the suspected target field to the southwest.
 - Fig. 3 is an aerial diagram of the fields including approximate field property lines and where soil and vegetation samples were taken from.
4. I was able to make contact with Glen Bohman via telephone and informed him of the complaint. Mr. Bohman immediately came over to meet me and look at the field. When Mr. Bohman arrived, he confirmed that the suspected target field to the west of Mr. Bredewater's is a field he farms. Mr. Bohman stated that he did apply Xtendimax and RoundUp Power Max this year, post emergent. I then gave Mr. Bohman a Pesticide Investigation Inquiry, (PII) for him to fill out and return to me within 15 days.
 5. On July 19, 2018 I received a completed PII back from Mr. Bohman via USPS, which indicated the following:
 - a. Certified Applicator: Glen Bohman
 - b. Dicamba Mandatory Training Attended: Yes, March 24, 2018
 - c. Application Date and Time: June 18, 2018- 11:00 am-11:40am
 - d. Pesticide Applied: Roundup PowerMax, EPA Reg. #524-549, Glyphosate Xtendimax, EPA Reg. #524-617, Dicamba
 - e. Adjuvants: ZAAR and Point Blank
 - f. Target Field Location and Size: Wilson Field, 70.28 acres
 - g. Pre- or Post- Emergent Application: Post
 - h. Wind Direction at Boom Height: Start- WSW, End- W
 - i. Wind Speed at Boom Height: Start- 8mph, End- 10mph
 - j. Nozzles: TeeJet TTI11005-VP
 - k. Boom Height: 24inches
 - l. Downwind Buffer: None listed
 - m. Checked Registrants Website before application: Yes, May 21, 2018
 - n. Checked DriftWatch before application: No
 6. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*
 7. The OISC Residue Laboratory analyzed the soil and vegetation samples collected from the fields for dicamba and its breakdown products DCSA and 5-OH dicamba, and reported the following:

Case # 2018/0721			Investigator: G. Creason		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2018-37-8038	Comparative control grab sample vegetation NE corner CP field	Vegetation	BDL	BDL	BDL
2018-37-8039	Comparative control grab sample soil	Soil	BDL	BDL	BDL
2018-37-8040	Soil sample from target field	Soil	4.86	111	BDL
2018-37-8041	Soil sample from nontarget field	Soil	BDL	BDL	BDL
2018-37-8042	Vegetation sample from nontarget field most impacted	Vegetation	1.70	BDL	BDL
2018-37-8043	Vegetation sample from nontarget field moderate impacted	Vegetation	0.577	BDL	BDL

2018-37-8044	Vegetation sample from nontarget field least impacted	Vegetation	BQL	BDL	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC					
LOQ (ppb)	Vegetation		0.4	0.4	2
LOQ (ppb)	Soil		0.2	0.2	2
Signature			Date	09/16/18	

8. The OISC Residue Laboratory analysis detected dicamba in the vegetation samples from Mr. Bredewater's non-DT soybean field.
9. Mr. Bohman's statements on the PII indicate during the application the wind direction was out of the west south west at the beginning of the application and out of the west at the end of the application and blowing towards Mr. Bredewater's Non-DT soybean field. The label for *Xtendimax*, EPA Reg. #524-617, Active Ingredient = dicamba states, ***"DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON."*** ***"Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result."*** Mr. Bohman also did not check DriftWatch prior to making the pesticide application.
10. Based on the evidence collected in this investigation, it has been determined that Glen Bohman failed to comply with the spray drift management restrictions on the label for the herbicide *Xtendimax*, EPA Reg. #524-617, Active Ingredient = dicamba. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

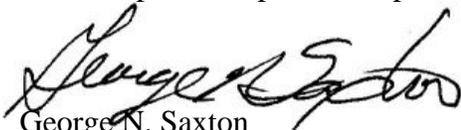


Garret A. Creason
Investigator

Date: October 15, 2018

Disposition: Glen Bohman was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of a sensitive crop registry before application.

Glen Bohman was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application when the wind is blowing towards a susceptible crop. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: November 27, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0723

Complainant: Rick Moore
5813 S 1100 E
Otterbein, Indiana 47970
765-491-2007

Respondent: Jake Hurst
Bryan Brost
Brost Farms
4466 S 850 E
Oxford, Indiana 47971
765-430-0217

Applicator/Employee
Private Applicator

1. On July 2, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 5, 2018, I met with Mr. Moore at his residence. He advised me he observed damage to his Liberty soybeans on the north side of CR 300 S at the residence of 10299 E 300 S. He stated he observed cupping and yellowing of leaves and stunted growth to his soybeans. He stated he believed the damages came from a dicamba pesticide application made to the Brost Farms field located across the road directly south of his field. I asked Mr. Moore if he had applied any pesticides to his soybean field. He stated he applied Sinister herbicide EPA Reg. #5905-593 with the active ingredient fomesafen and Liberty herbicide EPA Reg. #264-660 with the active ingredient glufosinate to his soybean field in late May 2018.
3. I then followed Mr. Moore to his soybean field. I observed a uniform symptom pattern across his soybean field. The symptoms were curling leaves and new growth consistent with dicamba exposure. I did observe some water damage around the west end of the field. I took photographs of the scene and of the symptoms to the soybeans. Mr. Bryan Brost arrived while we were at Mr. Moore's field. Mr. Brost agreed it appeared to be dicamba symptoms to Mr. Moore's soybeans. Mr. Brost stated he wanted to speak with me to learn more about the symptoms of dicamba to be able to avoid any future applications problems of either drift or volatilization. The following photographs show the symptoms to the soybeans in Mr. Moore's field.



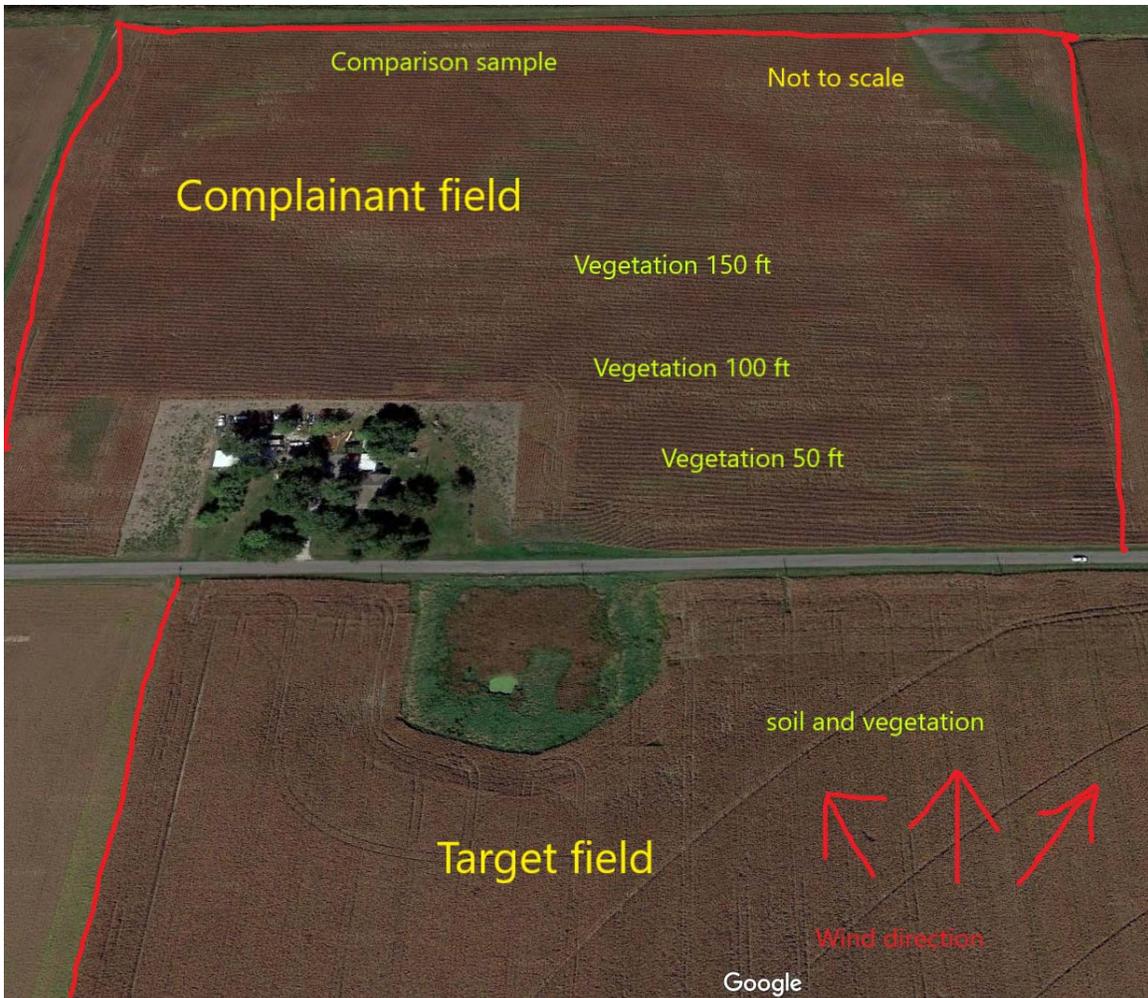
4. Mr. Brost advised me his worker Jake Hurst had made the pesticide application to his soybean field on June 6, 2018 between 3:00 pm- 6:00 pm. He stated they applied Engenia herbicide EPA Reg.

#7969-345 with the active ingredient dicamba, Roundup Power Max herbicide EPA Reg. #524-549 with the active ingredient glyphosate and Zidua WDG herbicide EPA Reg. #7969-338 with the active ingredient pyroxasulfone along with an AG 16098 drift reduction agent. He provided me with the application record, which is in this case file. I sent a Pesticide Investigation Inquiry (PII) to Mr. Brost of which he received, completed and returned to me. The PII confirmed the information provided to me by Mr. Brost and indicated they had completed all required trainings and dicamba management requirements. The PII further indicated the winds at the time and date of the pesticide application were NW at 6 mph and the temperature was 80 degree F. The PII is in this case file.

5. I then collected soil and vegetation samples from the target field. I also collected vegetation samples from the complainant's soybean field at intervals of 50 feet, 100 feet and 150 feet in from the target field. I also collected a comparison sample from the far north end of the complainant's field. All of the samples were labeled and submitted to the OISC Residue Lab. I also collected a full soybean plant sample from the complainant's field and submitted it to the Purdue Plant and Pest Diagnostic Lab (PPDL). The bean field located directly east of Mr. Moore's soybean field was planted with Liberty soybeans. I was unable to locate any other fields in the vicinity, which due to weather conditions could have impacted Mr. Moore's soybean field.
6. On July 9, 2018, I received a report from PPDL. The report stated, "*Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba. Brown spot was noted, but no significant diseases or insect injury*". A copy of the PPDL report is in this case file.
7. On September 16, 2018, I received a report from the OISC Residue Lab. The report indicated the active ingredient dicamba was detected in the samples collected from the target field as well as from the vegetation collected from the complainant's soybean field. The amount detected at 50 feet in was greater than the amount detected at 100 feet, which was greater than the amount detected at 150 feet and so on to the comparison sample. This information indicates the larger amount detected was nearest the target field and degradation occurred in the samples the further away from the target field they were. The following is a copy of the OISC residue lab report.

Case # 2018/0723			Investigator: B. Brewer		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2018-33-6131	Soil target field	Soil	3.28	229	BDL
2018-33-6132	Vegetation soybean target field	Vegetation	1.84	66.6	BDL
2018-33-6133	Vegetation soybean complainant field 50 ft	Vegetation	9.64	BQL	BDL
2018-33-6134	Vegetation soybean complainant field 100 ft	Vegetation	3.52	BDL	BDL
2018-33-6135	Vegetation soybean complainant field 150 ft	Vegetation	3.09	BDL	BDL
2018-33-6136	Vegetation soybean complainant field control North end	Vegetation	1.22	BQL	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC					
LOQ (ppb)	Vegetation		0.4	0.4	2
LOQ (ppb)	Soil		0.2	0.2	2
Signature			Date	09/16/18	

8. I researched the Weather Underground website for the weather conditions on the date and time of the pesticide application. I used triangulation using the nearest three reporting stations to the target field. KINOTTER2 located south of the target field indicated the winds were variable from SSW, SW,WSW,W at 0 – 4.3 mph and temperature between 77 – 80.8 degree F. KINLAFAY24 located NE of the target field indicated the winds were variable from SSE, SSW, S, SE calm and temperatures between 75.1 – 78.5 degree F. KINFOWLE5 located NW of the target field indicated the winds were variable from S, SW, SSE, E, ESE at 0.9 – 5.8 mph and temperatures were 77.7 – 80.2 degree F. Copies of the weather reports are in this case file.
9. The following is a diagram of the scene, showing the location of the target field in relationship to the complainant’s soybean field. It also shows the sample collection locations.



10. The label for Engenia herbicide states, “Do not apply when wind is blowing in the direction of neighboring sensitive crops. Sensitive crops include, but are not limited to: non-DT beans”.
11. The results of the OISC Residue Lab report, along with the weather report indicated the active ingredient in Engenia herbicide, dicamba, did drift off target and onto the complainant’s property.

Robert D. Brewer
 Robert D. Brewer
 Investigator

Date: November 30, 2018

Disposition: Bryan Brost was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: January 15, 2019
Final Date: February 27, 2019

CASE SUMMARY

Case #2018/0724

Complainant: Matt Johnson
7482 S. CR1150 W.
Redkey, IN 47373
260-726-0677

Respondent: Alan Dirksen Private Applicator
1205 N. CR800 W.
Portland, IN 47371
260-251-9200

1. On July 3, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 6, 2018, I spoke with Matt Johnson who reported he noticed cupping on non dicamba-tolerant (DT) soybeans in one of his fields the previous Saturday. He reported that his agronomist looked at and sampled the beans a couple of days later. Mr. Johnson indicated he was not sure which neighboring fields were sprayed with dicamba. Because he was actively involved at the fair, we agreed to meet the following week.
3. On July 11, 2018, I met Mr. Johnson at his farm. He described the location of his field and explained that, after we talked, Adam Seiber notified him Xtendimax (dicamba) would be sprayed on DT soybeans across the road to the south of the affected soybean field on July 7, 2018. Mr. Johnson reported his non-DT Roundup soybeans had not yet been post sprayed. I then went to his narrow, 25-acre field on the north side of CR500S in Jay County.
4. During my on-site investigation, I did the following:
 - a) Looked for, but did not find, any other potential sources of dicamba adjacent to the Johnson soybean field. The bean field was bordered by a soybean field along the west, north and northeast sides; a fence line with vegetation separated the two on the west side of the Johnson field.
 - b) Observed and photographed what appeared to be mostly uniform, widespread cupping and puckering of leaves (no notable gradient pattern of symptoms) on non-DT soybean plants across the Johnson field, including plants immediately adjacent to the vegetative fence line. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba.
 - c) Did not collect soybean plant samples for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue because Mr. Johnson's agronomist submitted samples the week prior.
 - d) Collected plant samples from soybeans exhibiting symptoms along the west edge of the Johnson field, 25 yards into the field and 50 yards into the field. Collected a soil sample from the potential target field to the west. Those samples were submitted to the OISC Residue lab for analysis.



Fig.1 Aerial photo of fields



Fig.2 Johnson beans near fence line



Fig.3 Cupped/puckered non-DT beans

5. On July 12, 2018, I spoke with Mr. Sieber, who verified his application to the field south of the Johnson field on July 7, 2018. After several phone calls to area growers, I spoke with Alan Dirksen, who confirmed he farmed the field, which surrounded the Johnson field on three sides. He reportedly sprayed the western portion of the field with Engenia (dicamba); the eastern portion of the field and the 110-foot buffer, which was left around the Johnson field, was sprayed with Roundup (glyphosate) and Sinister (fomesafen). Mr. Dirksen later completed a Pesticide Investigation Inquiry, which provided the following information:
 - a. Certified Applicator: Alan Dirksen
 - b. Application date and time: June 17, 2018, from 3pm – 330pm
 - c. Pesticides: Zidua (pyroxasulfone), EPA Reg. #7969-338
Engenia (dicamba) EPA Reg. #7969-345; 12.8oz/acre
 - d. Adjuvants: Clasp
 - e. Target field: 500S and Hwy 1
 - f. Pre or post application: Post
 - g. Wind speed/direction at start: 7mph from west (blowing toward Johnson field)
 - h. Wind speed/direction at end: 7mph from west
 - i. Nozzles: TTI 11004
 - j. Boom Height: 20” above crop
 - k. Downwind Buffer: 120 feet
 - l. Checked registrants website before application: June 12, 2018
 - m. Checked DriftWatch before application: June 14, 2018
 - n. Dicamba mandatory training attended: February 27, 2018

6. I checked recorded wind data at www.wunderground.com for the closest official weather station to the application site for June 17, 2018. The Delaware County Airport, which is 15 miles southwest of the application site, confirmed winds were from the west at 9mph at 253pm and 7mph at 353pm on the date of application.

7. The PPDL report for the soybeans collected from the Johnson field the week prior to my on-site inspection stated, *“Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba. We are seeing several fields with this type of injury and uniform symptomology across the whole field, sometimes with no obvious source. It could be any combination of direct particle drift during an inversion, volatility, or volatile vapors becoming trapped in an inversion and moving off-target.”* It further stated, *“Brown spot was noted on the lower leaves. There was no evidence of other disease.”*

8. The OISC Residue Lab analyzed the samples collected from the Johnson field for dicamba and its breakdown products, DCSA and 5-OH dicamba, and reported the following:

Case # 2018/0724			Investigator: A. Roth		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2018-47-5086	Nontarget beans West edge	Vegetation	3.03	BQL	BDL
2018-47-5087	Nontarget beans 25 yds	Vegetation	1.22	BDL	BDL
2018-47-5088	Nontarget beans 50 yds	Vegetation	0.734	BDL	BDL
2018-47-5089	Target soil	Soil	Did not test	Did not test	Did not test
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC					
LOQ (ppb)	Vegetation		0.4	0.4	2
Signature		Date	09/24/18		

9. Dicamba was detected in all three samples collected from the Johnson field. DCSA was detected in the sample collected from the west edge of the field, but was below quantification limits. The soil sample was not analyzed. The evidence at the site, the lab reports and the wind data reported by Mr. Dirksen and confirmed at the airport, suggest dicamba from the application to the target field moved off-target to the Johnson field. While it is difficult to determine whether dicamba moved off-target due to direct particle drift, application into an inversion or volatility at some point after the application, Engenia was applied when winds were blowing toward the sensitive non-DT soybeans.

10. The Engenia label states, “Engenia should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, habitat for threatened species, or sensitive crop plants) is minimal (e.g. when the wind is blowing away from sensitive areas).” Further, it states, “DO NOT apply when wind is blowing in the direction of neighboring sensitive crops. Sensitive crops include, but are not limited to: non-DT soybeans...”


 Andrew R. Roth
 Investigator

Date: November 26, 2018

Disposition: Alan Dirksen was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.


 George N. Saxton
 Compliance Officer

Draft Date: December 13, 2018
 Final Date: January 28, 2019

CASE SUMMARY

Case #2018/0730

Complainant: Brad Plank
4398 E 800 S
Walton, Indiana 46994
574-721-7222

Respondent: Dennis Ramer
Justin Ramer
6734 S. US 34
Walton, Indiana 46994
574-721-1463
Private Applicator

1. On July 3, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift from beans to his beans.
2. On July 3, 2018, I contacted complainant Brad Plank via telephone. Mr. Plank stated he has a non-dicamba tolerant soybean field located at the southwest corner of 400 east and 650 South in Cass County. Mr. Plank stated that along the east side of the field, next to 400 east, there is injury to the soybeans that he believed to be from dicamba injury. Mr. Plank informed me that Dennis Ramer farms the field directly across 400 east and believes he has used dicamba.
3. On July 9, 2018, I met with Mr. Plank at his farm in Walton, Indiana. I then followed Mr. Plank to the field with the possible dicamba injury. During my on-site investigation I did the following:
 - a. Looked for, but did not find, any other potential sources of a growth regulator type herbicide application adjacent to Mr. Plank's soybean field. The target field was directly across 400 east to the east of Mr. Plank's soybean field.
 - b. Observed and photographed a gradient pattern from east to west of cupping and puckering leaves on non-DT soybean plants across Mr. Plank's soybean field. Symptoms were notably more severe on the east end of the field closet to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Plank's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
 - d. Collected a composite soil sample from the target soybean field. Collected gradient soil and vegetation samples from Mr. Plank's soybean field. The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2

- Fig. 1) Mr. Plank’s non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2) Photo looking from Mr. Plank’s field across 400 east at the target field.



Fig. 3

- Fig. 3) is an aerial diagram of the fields including approximate field property lines and where soil and vegetation samples were taken from.
4. I was able to make contact with Dennis Ramer via telephone shortly after my on-site investigation to make him aware of the complaint that OISC received. However, Mr. Ramer was out of town and we agreed to speak at a later time. On September 5, 2018, I was able to speak with Mr. Ramer and he confirmed that he does farm the target field. Mr. Ramer stated his son Justin Ramer makes the pesticide applications to the field and that dicamba was applied. I emailed Mr. Ramer a Pesticide Investigation Inquiry (PII) and instructed him to have it returned to me within 15 days.
 5. On September 26, 2018, I emailed Mr. Ramer asking if the PII had been completed. On October 22, 2018, I received a completed PII via email from Justin Ramer. Justin Ramer stated that he had

originally sent it to the wrong email address and that was the cause of the delay. The completed PII that Justin Ramer provided me with indicated the following:

- a. Certified Applicator: Justin Ramer
- b. Application Date and Time: June 15, 2018, 11:15 am to 2:08pm
- c. Pesticide Applied: Roundup PowerMax, EPA Reg. #524-549, Glyphosate Engenia, EPA Reg. #7969-345, Dicamba
- d. Adjuvants: Cornbelt Vaporgaurd +DRA
- e. Target Field Location and Size: Long/Stern 200, 200 acres
- f. Pre- or Post- Emergent Application: Post
- g. Wind Direction at Boom Height: Start- W, End- W
- h. Wind Speed at Boom Height: Start- 3-5mph, End- 3-5mph
- i. Nozzles: Turbo TeeJet Induction TTII1004-VP
- j. Boom Height: 30-36 Inches
- k. Downwind Buffer: No
- l. Checked Registrants Website before application: No
- m. Checked DriftWatch before application: No
- n. Dicamba Mandatory Training Attended: Yes, February 8, 2018

6. Weather history data was obtained at www.wunderground.com and the closet official weather station to the application site was the Logansport Municipal Station (KGGP) located in Logansport, Indiana 5 miles northwest of the application site. The weather data for June 15, 2018 follows:

Time	Temperature	Wind Direction	Wind Speed	Wind Gust
10:55 AM	77 F	SSE	6 mph	0 mph
11:15 AM	79 F	SSE	5 mph	0 mph
11:35 AM	79 F	S	3 mph	0 mph
11:55 AM	79 F	S	6 mph	0 mph
12:15 PM	81 F	CALM	0 mph	0 mph
12:35 PM	81 F	S	5 mph	0 mph
12:55 PM	81 F	SSE	5 mph	0 mph
1:15 PM	81 F	S	6 mph	0 mph
1:35 PM	81 F	SSW	3 mph	0 mph
1:55 PM	82 F	ESE	5 mph	0 mph
2:15 PM	82 F	SSE	3 mph	0 mph

- 7. The personal weather station KINCAMDE2, located in Camden, Indiana and the Kokomo Municipal Station, KOKK, located in Kokomo, Indiana both also state that during the time of the pesticide application the wind was blowing SSE and ESE towards the complainant’s field.
- 8. The PPPDL report stated: Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.
- 9. The wind data indicates during the application the wind direction was out of the south southeast to east southeast towards Mr. Plank’s field. The label for Engenia, EPA Reg. #7969-345, Active Ingredient = dicamba states, **“DO NOT apply when wind is blowing in the direction of a neighboring sensitive crop”**. Mr. Ramer’s statements on the PII indicate that the boom height was 30-36 inches. The Label for Engenia states, **“DO NOT exceed a boom height of 24 inches**

above target pest or crop canopy.” Mr. Ramer also did not check the registrant’s website prior to the application. The label for Engenia states **“DO NOT tank mix any product with Engenia unless: You check the list of EPA approved products for use with Engenia at**

www.engeniatankmix.com

no more than 7 days before applying Engenia.” Mr. Ramer also did not check DriftWatch prior to the application. The label for Engenia states, **“Before making an application, the applicator must survey the application site for neighboring sensitive areas. The applicator must also consult sensitive crop registries to locate nearby sensitive areas where available”**

10. Based on the evidence collected in this investigation, it has been determined that Justin Ramer failed to comply with the drift management restrictions and tank mix restrictions on the label for the herbicide Engenia, EPA Reg. #7969-345, Active Ingredient = dicamba. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



Garret A. Creason
Investigator

Date: December 6, 2018

Disposition: Justin Ramer was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: January 15, 2019
Final Date: February 27, 2019

CASE SUMMARY

Case #2018/0731

Complainant: Scott Smith
1625 E 600 N
Windfall, Indiana 46076
765-438-1626

Respondent: Jesse Kelich
Kirk Retherford
Hartley Grain Co., Inc.
100 S. Cob Street
Elwood, Indiana 46036
765-620-8818

Registered Technician
Certified Applicator
Licensed Business

1. On July 3, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 12, 2018, I met with the complainant to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC. The complainant advised me that he believed his non-DT beans may have been damaged by a pesticide application made by Jesse Kelich to a nearby soybean field.
3. During my on-site investigation I did the following:
 - a) Looked for and discovered where the potential dicamba application was made in the area of the impacted site.
 - b) Observed and photographed what I believed to be dicamba symptoms, such as cupping and curling of the soybean leaves (figure 1) throughout the complainant's non-target soybean field (figure 2). The field is located to the north/north-west of the target field. I also observed and photographed what I believed to be dicamba exposure symptoms (raised and more prominent ridges in the tomato plant leaves) to the north of the non-target soybeans (figure 3 & figure 4) in the complainant's adjacent tomato field.



Figure 1



Figure 2



Figure 3



Figure 4

- c) Collected soybean and tomato samples from impacted areas of the complainant's non-target soybeans and tomato field for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
- d) Collected samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - 1). Impacted soybean and tomato plants from complainant's non-target soybean and tomato fields.
 - 2). Soil from the target field
- e) Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collections, roads, structures, and other landmarks (figure 5)

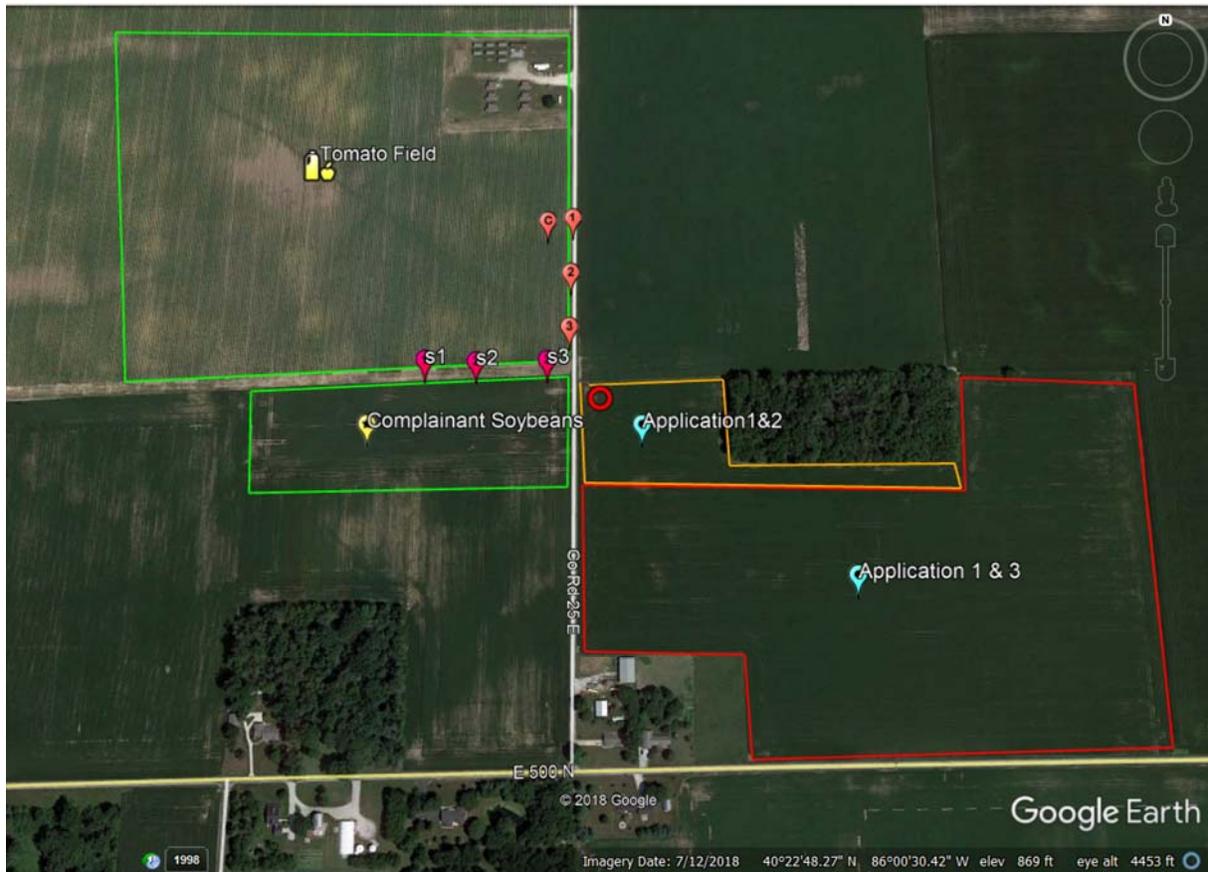


Figure 5

*Figure 5 is a Google Earth Image of the Complainant's fields outlined in Green and the Target fields outlined in Orange (Application Maps 1 & 2 in applicator records) and Red (Application Maps 1 & 3 in applicator records).

*Application 1 contained Buccaneer Plus EPA #55467, Leverage 360 EPA #264-1104, and Zidua EPA #7969-338

*Application 2 contained Flexstar EPA #100-1101

*Application 3 contained Engenia EPA #7969-345

*Markers C (Control), 1(Tomato 1), 2 (Tomato 2), and 3 (Tomato 3) show the approximate location of Tomato samples.

*Markers S1 (Soybean 1), S2 (Soybean 2), S3 (Soybean 3) show the approximate location of Soybean samples.

*Red Circle Icon is the approximate location of the target soil sample.

4. I collected written records from the applicator Jesse Kelich. The written records and statements addressed the blow items as follows:

- a. Application date & time: June 15, 2018 from 2:14pm to 4:12pm
- b. Target Field: soybeans
- c. Pesticides:

Application 1:

Buccaneer Plus EPA #55467-9 Active Ingredient Glyphosate 41%
 Leverage 360 EPA #264-1104
 Zidua EPA #7969-338

*The applicator did note an error for the tank mix that was originally recorded by the sprayer. The tank mix 1 is not Engenia but the previously listed three products)

Application 2:

Flexstar #100-1101

Application 3:

Engenia EPA #7969-345 Active Ingredient Dicamba 60.8 %

- d. Application Rate: shown on application sheet
- e. Adjuvants: Astonish
- f. Nozzles: Wilgur UR110-10 35 PSI
- g. Boom Height: 20"
- h. Ground Speed: 8.1 mph
- i. Winds: 3.13 mph 103 degrees
- j. Applicator: Jesse Kelich
- k. Certified Supervisor: n/a
- l. Left a 110' untreated buffer next to non-target site:
- m. Checked Registrant's Website Prior to Application: No
- n. Checked Field Watch Prior to Application: Yes
- o. Surveyed Application Site Prior to Application: Yes

5. I searched wind data from www.weatherunderground for the zip code 46076 in Windfall, Indiana for the reported dates and times of the application. The results of that search indicated the wind speeds and directions during the applications were as follows:

June 15, 2018 As recorded from the Kokomo Municipal Airport

1:56 PM	84 ° F	57 ° F	40 %	ENE	6 mph	0 mph
2:56 PM	86 ° F	54 ° F	33 %	ESE	8 mph	0 mph
3:56 PM	86 ° F	58 ° F	38 %	SE	10 mph	0 mph
4:56 PM	88 ° F	58 ° F	36 %	S	6 mph	0 mph

6. The report from the Purdue Plant and Pest Diagnostic Laboratory (PPDL) states:

Host/Habitat	Tomato (Lycopersicon sp./spp.)
List of Diagnosis/ID(s)	
Suspected for Herbicide injury; Exposure (Abiotic disorder)	
Suspected for Cultural/environmental problem (Abiotic disorder)	

Final Report

7-13-18

Curled petioles on aborted flowers, and curled sepals on forming fruit could be indicative of injury from a growth regulator herbicide.

Joe Ikley
Weed Science Program Specialist
Purdue University
915 West State Street
W. Lafayette, IN 47907
e-mail - jikley@purdue.edu
Cell - (410) 596-9091
Office - (765) 496-2121

7-13-18

There was no evidence of an infectious disease on this sample.

Note that non-disease related physiological leaf roll can be caused by the interaction of nutrition, growing conditions and genetics of the plant. This type of upward rolling of leaf margins and thickening of leaves is common in tomato and seems to be triggered by high or low soil moisture, high Nitrogen, heat stress, excess pruning or some combination of these. This symptom of curling occurs only on leaves--not on petioles or sepals.

Gail Ruhl
Plant Disease Diagnostician

Host/Habitat	Soybean (Glycine max)
List of Diagnosis/ID(s)	
Suspected for Herbicide injury; Exposure (Abiotic disorder)	

Final Report

7-13-18

Necrosis and chlorosis on leaves is indicative of injury from a PPO-inhibiting herbicide like fomesafen. Some of the crinkling/puckering on leaves can also be caused by a PPO-inhibitor. Leaves with extreme puckering and parallel veins is more indicative of injury from a growth regulator herbicide (though not dicamba).

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7-13-18

No major infectious disease was observed to be associated with this sample.

Gail Ruhl
Plant Disease Diagnostician

7. The report from the OISC Pesticide Residue Laboratory states:

Case #	2018/0731		Investigator				M. Rosch	
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)					
			Pyrooxasulfone	Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-35-7243	Control veg	Vegetation	BDL	6.58	BQL	BDL	BDL	BDL
2018-35-7244	Tomato 1 - 160	Vegetation	BDL	BQL	BDL	BDL	BDL	BDL
2018-35-7245	Tomato 2 - 80	Vegetation	BDL	0.232	BDL	BDL	BDL	BDL
2018-35-7246	Tomato 3 - corner	Vegetation	BDL	BDL	BDL	BDL	BDL	BDL
2018-35-7247	Soybean 1	Vegetation	BDL	0.873	BDL	BDL	13.1	BDL
2018-35-7248	Soybean 2	Vegetation	BDL	0.940	BDL	BDL	BDL	BDL
2018-35-7249	Soybean 3	Vegetation	BDL	2.25	BDL	BDL	BDL	BDL
2018-35-7250	Target soil	Soil	40.5	0.490	89.5	BDL	329	226
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC								
LOQ (ppb)	Soil		0.3	0.2	0.2	0.4	5	25
LOQ (ppb)	Vegetation		0.7	0.2	0.2	2	5	50
Signature					Date	11/16/18		

8. The label violations in this case are the following:

-Engenia EPA #7969-345:

Page 11 of the label reads,

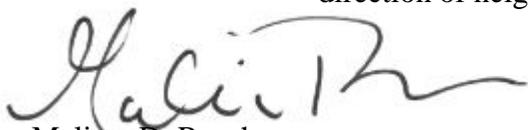
“DO NOT apply when wind is blowing in the direction of neighboring sensitive crops.”

Page 12 of the label reads,

“DO NOT tank mix any product with Engenia unless : 1. You check the list of EPA approved products for use with Engenia at www.engeniatankmix.com no more than 7 days before applying Engenia.”

9. There appears to be a violation in this case because of the following:

- The label violations mentioned in paragraph 8.
- This would have been a no-spray day since the wind was blowing in the direction of neighboring sensitive crops.



Melissa D. Rosch
Investigator

Date: December 14, 2018

Disposition: Jesse Kelich and Kirk Retherford were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that Kirk Retherford failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



George N. Saxton
Compliance Officer

Draft Date: January 14, 2019
Final Date: February 18, 2019

CASE SUMMARY

Case #2018/0735

Complainant: Richard Dauby
5606 Attic Road
Tell City, Indiana 47586
812-836-2042 home
303-903-0479 cell

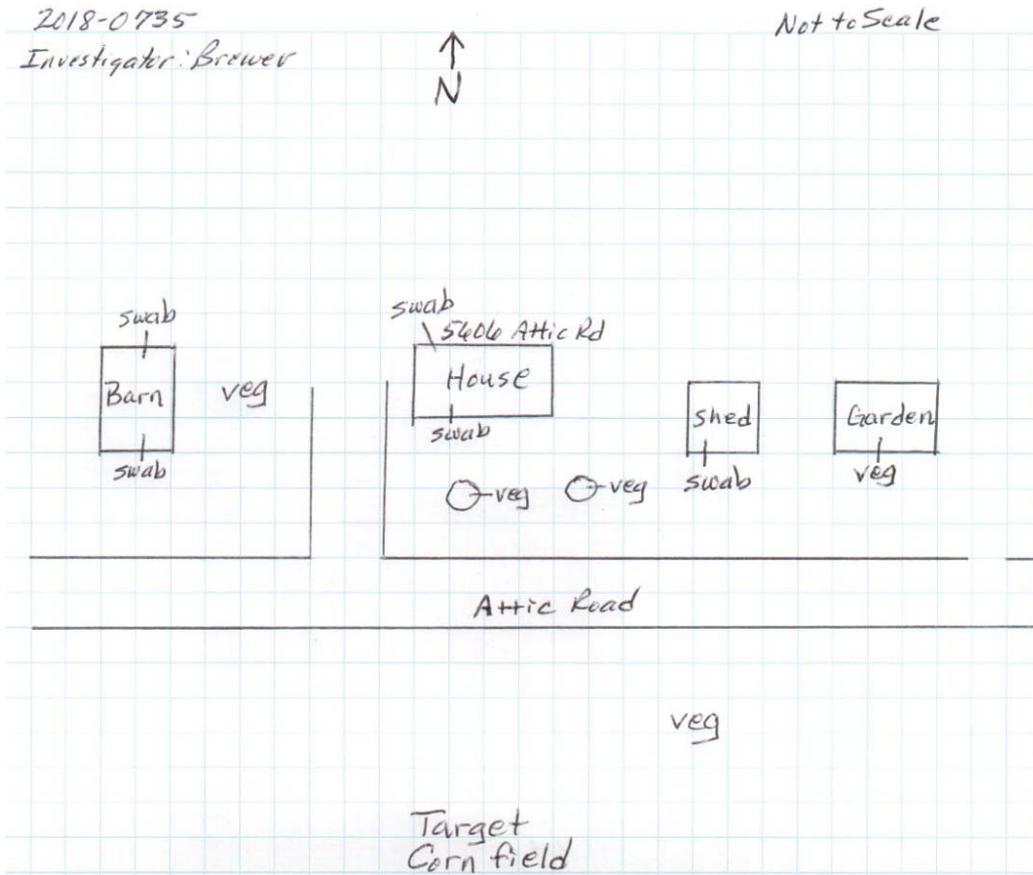
Respondent: Dustin Starlin Certified Applicator
Milhon Air, Inc.
2151 Centerton Road
Martinsville, Indiana 46151
317-831-7464

1. On July 5, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected aerial agricultural pesticide drift to his property.
2. On July 9, 2018, I met with Mr. Dauby at his residence. He stated on July 3, 2018, he observed an airplane making an aerial pesticide application to the cornfield located across the road to the south of his property. He stated the plane would bank over his property and he feels it was drifting pesticide onto his property. Mr. Dauby showed me a video he had taken of the aerial application being made. I was unable to determine from the video, if any pesticide drifted onto the Dauby property. I explained to Mr. Dauby the investigation process I would be conducting.
3. I made contact with Mr. Rodney Schwoeppe, Manager of Superior Ag in St. Meinrad, Indiana. He advised me Milhon Air, Inc. had made the aerial pesticide application to the target field. He stated they applied Triva Pro fungicide and Tundra insecticide in a tank mix.
4. I collected vegetation samples from the target cornfield and from Mr. Dauby's lawn and his garden area. I also collected swab samples from his barn, house and shed. All of the samples were labeled and submitted to the OISC residue lab. No photographs were used, due to the fact the pesticides applied were fungicides and insecticide, which leave no symptoms or visible damage.
5. I made contact with "Anna" at Milhon Air, Inc. and learned Mr. Dustin Starlin was the certified applicator/pilot who made the aerial pesticide application to the target field. She advised me Mr. Starlin made the aerial pesticide application on July 3, 2018 between 7:00 am and 9:30 am. She stated he applied Trivapro fungicide EPA Reg. #100-1613 with the active ingredients benzovidiflupyr, azoxystrobin and propiconazole and Tundra EC insecticide EPA Reg. #1381-196 with the active ingredient bifenthrin. She sent me the application record, which is in this case file. The application record map showed Mr. Starlin had left a single swath buffer on the north end of the target field.

6. I sent a Pesticide Investigation Inquiry (PII) to Mr. Starlin of which he received, completed and returned to me. The PII confirmed the information given to me previously by Anna. The PII also indicated the drift control agent Masterlock was also in the tank mix. The PII further indicated the winds at the date and time of the aerial pesticide application were 164 degree (SE) at 1 mph. The PII is in this case file.
7. I researched the Weather Underground website for the weather conditions at the nearest reporting station to the target field on the date and time of the aerial pesticide application. The website indicated the winds were variable from S, SE, SSW, WSW between 0 - 2.7 mph, which would be blowing towards the Dauby property. The temperatures were between 82 -95 degree F. A copy of the weather report is in this case file.
8. On November 19, 2018, I received a report from the OISC residue lab. The report indicated the active ingredients benzovindiflupyr, azoxystrobin and propiconazole were detected in the swab samples collected. These active ingredients along with bifenthrin were all detected in the vegetation samples collected from the Dauby property. The following is a copy of the OISC residue lab report.

Case #	2018/0735		Investigator			B. Brewer
Sample #	Sample Description	Amount of Analyte (ng/swab or ppb)				
		Matrix	Benzovindiflupyr	Azoxystrobin	Propiconazole	Bifenthrin*
2018-33-6149	Trip blank	Swab	BDL	BDL	BDL	None Detect
2018-33-6150	Control swab	Swab	BDL	1.91	BDL	None Detect
2018-33-6151	Swab South side of barn	Swab	0.470	3.91	BQL	Detected
2018-33-6152	Swab North side of barn	Swab	BDL	0.850	BDL	None Detect
2018-33-6153	Swab South side of house	Swab	BDL	1.38	4.14	None Detect
2018-33-6154	Swab North side of house	Swab	BDL	1.42	BDL	None Detect
2018-33-6155	Swab South side of East shed	Swab	BDL	5.49	BDL	Detected
2018-33-6156	Vegetation corn target field	Vegetation	0.750	BDL	BDL	BQL
2018-33-6157	Vegetation complt's property yard	Vegetation	10.0	21.9	30.0	18.7
2018-33-6158	Vegetation complt's garden	Vegetation	BQL	BDL	BDL	3.51
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC						
*Qualitative test for Bifenthrin in swabs was performed. No LOQ was determined.						
LOQ	Vegetation		0.7	3	3	2
LOQ (ng/swab)	Swab		0.4	0.2	4	N/A*
Signature				Date	11/19/18	

9. The following is a diagram of the area, indicating the location of the target field to Mr. Dauby's residence and the sample collection locations.



10. I researched the labels for Triapro fungicide and Tundra EC insecticide. The label for Triva Pro fungicide states, "Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur". "AVOID SPRAY DRIFT." The label for Tundra EC states on page two "Do not make applications when weather conditions favor drift from treated areas". "Only apply this product if the wind direction favors on-target deposition."
11. The results of the OISC residue lab, along with the weather report, indicated the active ingredients from the aerial pesticide application made by Mr. Starlin did drift off target and onto the complainant's property.

Robert D. Brewer
Robert D. Brewer
Investigator

Date: November 27, 2018

Disposition: Dustin Starlin was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact this was Mr. Starlin's second violation of similar nature. See case number 2017/1099.

George N. Saxton
George N. Saxton
Compliance Officer

Draft Date: December 10, 2018

Final Date: January 17, 2019

cc: Kathryn Watson – Email: kwatson@csmlawfirm.com

- b. Observed and photographed a gradient pattern from west to east of cupping and puckering of leaves on non-DT soybean plants across Mr. Warpup's soybean field. Symptoms were notably more severe on the west end of the field closest to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
- c. Collected samples of injured soybean plants from Mr. Grigsby's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDL).
- d. Collected a composite soil sample from the target soybean field. Collected gradient vegetation samples and composite soil samples from Mr. Warpup's soybean field. The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2

- Fig. 1 is Mr. Warpup's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is Mr. Warpup's damaged soybean field at the northwest corner looking east.



Fig. 3

- Fig. 3 is an aerial diagram of the fields including approximate field property lines and where soil and vegetation samples were taken from.

6. On July 13, 2018 I received the completed PII back from Mr. Penrod which indicated the following:
- Certified Applicator: Scott Landrum
 - Dicamba Mandatory Training Attended: Yes, January 23, 2018
 - Application Date and Time: June 16, 2018, 11:00am to 11:25am
 - Pesticide Applied: Engenia, EPA Reg. #7969-345, Dicamba, 12.8oz/Acre
 - Adjuvants: Class Act Ridion and AG16098
 - Target Field Location and Size: Just Kan't Rest Farms 178.75 acres; 67.2 acres was applied too.
 - Pre- or Post- Emergent Application: Post
 - Wind Direction at Boom Height: Start- SW, End- SW
 - Wind Speed at Boom Height: Start- 5mph, End- 5mph
 - Nozzles: Wilger UR 110-10
 - Boom Height: 24 Inches
 - Downwind Buffer: None
 - Checked Registrants Website before application: March 2018
 - Checked DriftWatch before application: Unknown
7. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*
8. The OISC Residue Laboratory analyzed the soil and vegetation samples collected from the fields for dicamba and its breakdown products DCSA and 5-OH dicamba, as well as glyphosate and reported the following:

Case #	2018/0742		Investigator				G. Creason	
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)					
			Pyroxasulfone	Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-37-8070	Comparative control vegetation from NE corner CP field	Vegetation	BDL	10.9	BDL	BDL	BDL	BDL
2018-37-8071	Comparative control soil from NE corner CP field	Soil	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested
2018-37-8072	Least affected vegetation from CP field	Vegetation	BDL	10.5	BDL	BDL	BDL	BDL
2018-37-8073	Moderately affected vegetation from CP field	Vegetation	BDL	7.96	BDL	BDL	BDL	BDL
2018-37-8074	Most affected vegetation from CP field	Vegetation	BDL	9.63	BDL	BDL	BDL	BDL
2018-37-8075	Soil sample from CP field	Soil	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested
2018-37-8076	Target field soil sample	Soil	Not tested	1.76	34.5	BDL	898	428
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC								
LOQ (ppb)	Soil	Not tested	0.2	0.2	2	10	125	

LOQ (ppb)	Vegetation	0.3	0.4	0.4	2	25	125
Signature					Date	10/02/18	

9. The OISC Residue Laboratory analysis detected dicamba in the vegetation samples from Mr. Warpup’s non-DT soybean field. Glyphosate was below detection limits in Mr. Warpup’s non-DT soybean field.
10. On October 17, 2018, I contacted Mr. Penrod via telephone to clarify answered questions on the PII. Mr. Penrod was able to confirm that the Engenia application was made to the Northern 1/3 of the soybean field and that only Engenia was applied. He stated that on June 6, 2018 the south 2/3 of the field was applied with RoundUp. Mr. Penrod also stated on the PII that the wind was a southwest wind and I was able to confirm with him that the wind was from the southwest blowing toward the northeast.
11. Mr. Penrod’s statements on the PII with Scott Landrum as the applicator indicate during the application the wind direction was out of the southwest and blowing towards Mr. Warpup’s Non-DT soybean field. The label for *Engenia*, EPA Reg. #7969-345, Active Ingredient = dicamba states, **“DO NOT APPLY Engenia when the wind is blowing toward neighboring sensitive crops.”** **“Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.”** Mr. Penrod and Mr. Landrum also did not check DriftWatch prior to making the pesticide application in accordance with the Engenia label which states, **“Before making an application, the applicator must survey the application site for neighboring sensitive areas. The applicator must also consult sensitive crop registries to locate sensitive nearby areas where available.”** It was also found that the registrants website was not checked prior to the application in accordance with the label requirement which states **“DO NOT tank mix any product with Engenia unless: You check the list of EPA approved products for use with Engenia at www.engeniatankmix.com no more than 7 days before applying Engenia.”**
12. Based on the evidence collected in this investigation, it has been determined that Scott Landrum failed to comply with the drift management restrictions on the label for the herbicide *Engenia*, EPA Reg. #7969-345, Active Ingredient = dicamba. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

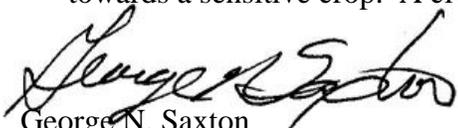


Garret A. Creason
Investigator

Date: October 17, 2018

Disposition: Scott Landrum was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of the registrant’s website within seven (7) days of application and checking a sensitive crop registry before application.

Scott Landrum was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management by applying when winds were blowing towards a sensitive crop. A civil penalty in the amount of \$250.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: November 27, 2018
Final Date: February 28, 2019

CASE SUMMARY

Case #2018/0743

Complainant: John Little
10739 S 700 W 35
Marion, Indiana 46952
260-359-6258

Respondent: Todd Hinshaw
6556 N 700 E
Van Buren, Indiana 46991
765-243-0667
Private Applicator

1. On July 6, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 6, 2018, I contacted the complainant, John Little, via telephone, to set up a time to meet. Mr. Little stated that he was going to be out of the county for the next few weeks and that he would not be able to meet in person. Mr. Little asked that I contact Brian Warpup, a friend, to show me the field with injury. Mr. Little stated that the soybean field with the injury was located at the southwest corner of State Road 218 and 500W. Mr. Little stated that he believed the injury was from dicamba. The field was a 38-acre non-dicamba tolerant soybean field.
3. On July 11, 2018, I met with Brian Warpup and he was able to show me Mr. Little's soybean field that had been affected. While at the field, I could see a gradient pattern going from west to east through the field. Mr. Little had informed me that Todd Hinshaw farms directly to the west of his field. I was able to contact Mr. Hinshaw via telephone while at the field and confirm he farmed the adjacent field to the west. Mr. Hinshaw also stated he applied dicamba. I sent Mr. Hinshaw a Pesticide Investigation Inquiry on July 11, 2018.
4. During my on-site investigation I did the following:
 - a. Looked for but did not find any other potential sources of a growth regulator type herbicide application adjacent to Mr. Little's soybean field. The target field bordered Mr. Little's soybean field to the west with a small grass/tree strip separating the two fields.
 - b. Observed and photographed a gradient pattern of cupping and puckering leaves on non-DT soybean plants across Mr. Little's soybean field from west to east. Symptoms were notably more severe on the west end of the field closest to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Little's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL).

- d. Collected composite soil and vegetation samples from the target soybean field. Collected gradient soil and vegetation samples from Mr. Little's soybean field. The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2

- Fig. 1 is Mr. Little's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is looking south at the dividing line of grass and trees between the two fields.



Fig. 3

- Fig. 3 is an aerial diagram of the fields including approximate field property lines and where soil and vegetation samples were taken from.

5. On July 20, 2018 I received a completed Pesticide Investigation Inquiry from Mr. Hinshaw which indicated the following:
 - a. Private Applicator: Todd Hinshaw
 - b. Application Date and Time: June 18, 2018, 7:45am to 9:06am
 - c. Pesticide Applied: Roundup PowerMax, EPA Reg. #524-549, Glyphosate
Engenia, EPA Reg. #7969-345, Dicamba, 12.8oz/Acre
Zidua, EPA Reg. #7969-338, Pyroxasulfone
 - d. Adjuvants: AG16098 and Class Act Ridion
 - e. Target Field Location and Size: Hanna South, 91.4 acres
 - f. Pre- or Post- Emergent Application: Post
 - g. Wind Direction at Boom Height: Start- S, End- S
 - h. Wind Speed at Boom Height: Start- 4-6mph, End- 4-8mph
 - i. Nozzles: Teejet TTI11004
 - j. Boom Height: 18 to 24 Inches
 - k. Downwind Buffer: No
 - l. Checked Registrants Website before application: No
 - m. Checked DriftWatch before application: Yes, June 5, 2018
 - n. Dicamba Mandatory Training Attended: Yes, January 30, 2018

6. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*

7. Weather history data was obtained at www.wunderground.com and the closest official weather station to the application site was the Fort Wayne International Airport (FWA) located in Fort Wayne, Indiana 28 miles northeast of the application site. The weather data for June 18, 2018 follows:

8. A personal weather station in South Huntington County, KINVANBU3, also states that during the time of the application the wind was out of southwest, and west southwest. This station is located approximately two miles east-southeast from the application site. Wind from the southwest / west-southwest was blowing toward the complainants field.

9. The OISC Residue Laboratory analyzed the soil and vegetation samples collected from the fields for glyphosate, dicamba, its breakdown products DCSA and 5-OH dicamba, and reported the following:

Case #	2018/0743		Investigator				G. Creason	
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)					
			Pyroxasulfone	Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-37-8077	Comparative control vegetation	Vegetation	Did not test	BQL	BDL	BDL	BDL	BDL
2018-37-8078	Comparative control soil	Soil	Did not test	Did not test	Did not test	Did not test	Did not test	Did not test
2018-37-8079	Least affected vegetation from CP field	Vegetation	Did not test	0.769	BDL	BDL	BDL	BDL
2018-37-8080	Moderately affected vegetation from CP field	Vegetation	Did not test	1.05	BDL	BDL	BDL	BDL

2018-37-8081	Most affected vegetation from CP field	Vegetation	Did not test	1.97	BDL	BDL	BDL	BDL
2018-37-8082	Soil from CP field	Soil	Did not test					
2018-37-8083	Soil from target field	Soil	Did not test	0.379	60.6	BDL	271	865
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC								
LOQ (ppb)	Soil	Did not test	0.2	0.2	0.4	10	125	
LOQ (ppb)	Vegetation	Did not test	0.4	0.4	2	25	125	
Signature						Date	11/19/18	

10. The OISC Residue Laboratory analysis detected dicamba in the vegetation samples from Mr. Little’s non-DT soybean field. Glyphosate was below detection limits in Mr. Little’s non-DT soybean field.

11. The wind data and laboratory reports indicate during the application the wind direction was out of the southwest to out of the west southwest towards Mr. Little’s field. The label for *Engenia*, EPA Reg. #7969-345, Active Ingredient = dicamba states, “**DO NOT apply when wind is blowing in the direction of a neighboring sensitive crop**”. Mr. Hinshaw also did not check the registrant’s website prior to the application. The Label for Engenia also states “**DO NOT tank mix any product with Engenia unless you check the list of EPA approved products for use with Engenia at www.engeniatankmix.com no more than 7 days before applying Engenia**”

12. Based on the evidence collected in this investigation, it has been determined that Todd Hinshaw failed to comply with the Drift Management restrictions and Tank Mix restrictions on the label for the herbicide *Engenia*, EPA Reg. #7969-345, Active Ingredient = dicamba. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



Garret A. Creason
Investigator

Date: November 30, 2018

Disposition: Todd Hinshaw was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: January 14, 2019
Final Date: February 27, 2019

CASE SUMMARY

Case #2018/0752

Complainant: Gary Kellermeier
2550 S 100 E
Brownstown, Indiana 47220
812-498-2064

Respondent: Steven McCory
Kova Fertilizer, Inc.
3323 E. SR 258
Seymour, Indiana 47274
812-522-3303

Certified Applicator
Licensed Business

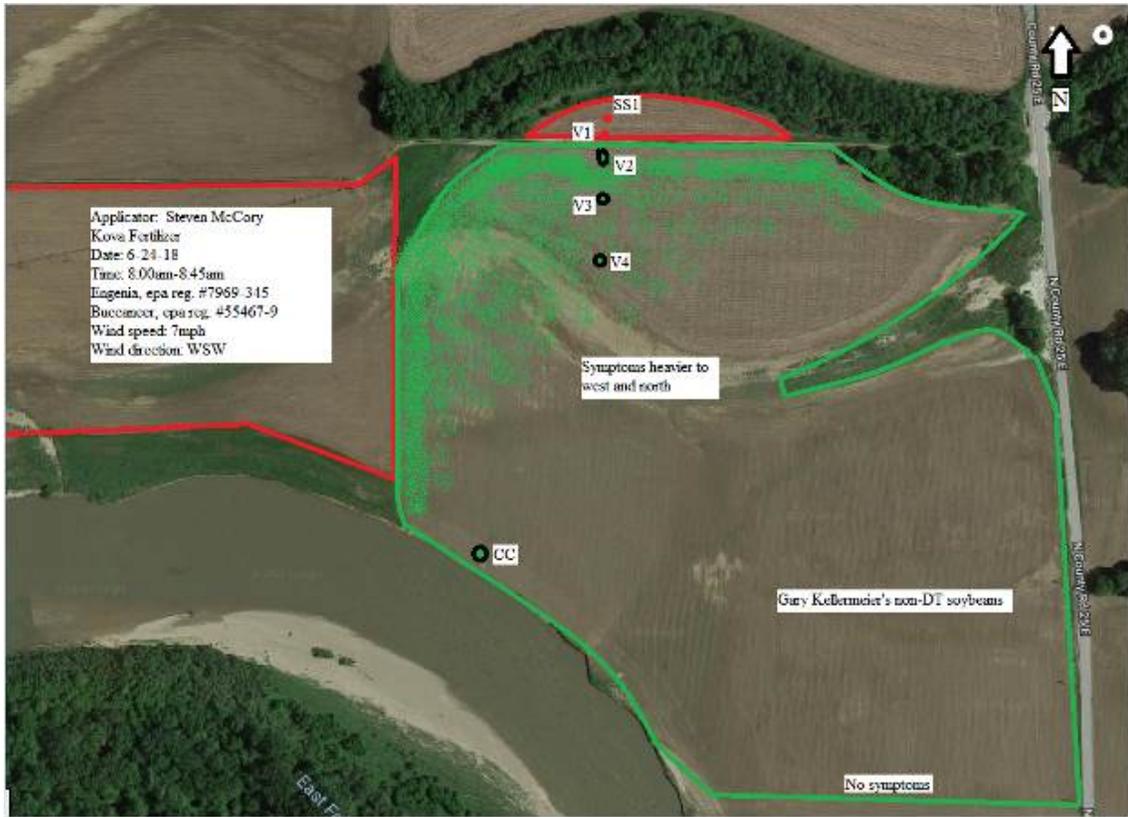
1. On July 9, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 12, 2018, I met with Mr. Kellermeier at his Roundup Ready soybean field west of North County Road 25 East in Brownstown, Indiana. Mr. Kellermeier stated symptoms appeared to be on the north and west side of his soybean field. Soybean plants had cupped and puckered leaves. See figures 1-2. I did not observe symptomology on south or east sides of Mr. Kellermeier's soybean field. See field diagram.



Figure 1-Cupped leaves



Figure 2-North end of field



Field Diagram

3. On July 12, 2018, I collected investigative samples. In addition, I collected a vegetation sample to be visually analyzed by Purdue's Pest and Plant Diagnostic Lab (PPDL).
4. On July 13, 2018, I received the following report from PPDL:

Diagnosis and Recommendations

Host/Habitat	Soybean (Glycine max)
List of Diagnosis/ID(s)	
Suspected for Herbicide injury; Exposure (Abiotic disorder)	

Final Report

7-13-18
 Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.

Joe Ikley
 Weed Science Program Specialist
 Purdue University
 e-mail - jikley@purdue.edu
 Office - (765) 496-2121

7-13-18
 No fungal or bacterial disease and no insect/mite pests were observed to be associated with the symptoms of concern (foliar distortion).

Gail Ruhl
 Plant Disease Diagnostician

5. On July 13, 2018, I received a completed PII from Steven McCory. Mr. McCory documented he made an application on 6-24-18 between 8:00am and 8:45am using Engenia (EPA Reg. #7969-345, active ingredient dicamba) and Buccaneer Plus (EPA Reg. #55467-9, active ingredient glyphosate). Wind was documented out of the west, southwest at 7mph, blowing toward Mr. Kellermeier's non-DT soybeans.
6. Label language for Engenia states in part, "*DO NOT apply when wind is blowing in the direction of neighboring sensitive crops. Sensitive crops include, but are not limited to, non-DT soybeans.*"
7. Environmental samples were not analyzed due to the applicator's admitted label violation.


Paul J. Kelley
Investigator

Date: October 29, 2018

Disposition: Steven McCory was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed to Kova Fertilizer, Inc. for this violation.


George N. Saxton
Compliance Officer

Draft Date: December 7, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0754

Complainant: Steve Thomas
4671 W 1150 S
Brookston, Indiana 47923
765-427-0323

Respondent: Brandon Bell
5045 S 450 W
Chalmers, Indiana 47929
219-207-02220

Private Applicator

1. On July 9, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans from the bean field across the road.
2. On July 11, 2018, I met with the complainant to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC. The complainant advised me that he believed his non-DT Roundup Ready beans had been damaged by an application made by Mr. Bell to a nearby bean field.
3. During my on-site investigation I did the following:
 - a) Looked for and discovered there were no other potential dicamba applications made in the area adjacent to the impacted site.
 - b) Observed and photographed what I believed to be fairly uniform dicamba exposure symptoms (figure 1) throughout the complainant's non-target, non-DT soybean field (figure 2) located to the east of the target field. I could also see that it appeared as if there may have been a run-off from the target field to the complainant's field. In this area symptoms were heavier. (figure 3) The runoff was from a culvert that ran under the road connecting the two fields. (figure 4) The target field and the complainant's non-target field were separated by county road 1200 S east of 650 W about forty-five (45) feet. (figure 5)
 - c) Collected soybean plant samples from impacted areas of the complainant's non-target soybean field for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
 - d) Collected samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted soybean plants from complainant's non-target soybean field;
 - ii) Soil from target field
 - iii) Soil from non-target field
 - iv) Weed veg from target field

4. Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks. (figure 6)
5. On July 12, 2018, I collected written records from the applicator Mr. Bell.
 - a) Application date & time: June 19, 2018 from 1:30pm to 3:15pm;
 - b) Target field: soybean field to the south of complainant's soybean field;
 - c) Pesticides: Xtendimax (dicamba) EPA Reg. #524-617 and Roundup PowerMax (glyphosate) EPA Reg. #524-549 and Section Three (clethodim) EPA Reg. #66330-414-1381;
 - d) Application rate: Xtendimax 22 oz. per acre Roundup PowerMax 32 oz. per acre Section Three 6 oz. per acre;
 - e) Adjuvants: Class Act Rideon;
 - f) Nozzles: TTI 11005
 - g) Boom height: 24 inches
 - h) Ground speed: 12.5 mph
 - i) Winds: 3-5 mph from the west southwest and west northwest;
 - j) Applicator: Brandon Bell;
 - k) Certified supervisor: not applicable;
 - l) Left a 110' untreated buffer next to non-target site: yes 360 feet
 - m) Checked registrant's web site before application: Yes April 15, 2018
 - n) Checked Field Watch before application: Yes June 15, 2018
 - o) Surveyed application site before application: Yes
6. I searched wind data from www.weatherunderground.com for zip code 47920 in Brookston, Indiana for the reported date and time of the application. The results of that search indicated that wind speed and direction during the application were as follows:

As recorded at Purdue University 6-24 mph gusts 22-40 mph W SW and WSW

1:54 PM	89 ° F	74 ° F	61 %	SW	10 mph	0 mph
2:21 PM	88 ° F	73 ° F	61 %	W	10 mph	0 mph
2:43 PM	76 ° F	68 ° F	76 %	WNW	24 mph	40 mph
2:54 PM	71 ° F	68 ° F	90 %	WSW	20 mph	35 mph
2:57 PM	71 ° F	69 ° F	93 %	WSW	22 mph	35 mph
3:11 PM	70 ° F	69 ° F	97 %	WSW	6 mph	22 mph

Purdue University Wind Data 8 Miles South

7. The wind would have been blowing in the direction of the complainants beans.
8. The report from the PPPDL states, "*Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.*"
9. The report from the OISC Pesticide Residue Laboratory states:

Case #	2018/0754				Investigator	K. Neal	
Sample #	Sample Description	Amount of Analyte (ppb)					
		Matrix	Dicamba	DCSA	5-OH Dicamba	Acifluorfen	Clethodim/ Clethodim Sulfone/ Clethodim Sulfoxide
2018-22-1092	Soil sample from Bell DT beans 1200S South side	Soil	Did not test	Did not test	Did not test	Did not test	N/A
2018-22-1093	RR beans Thomas 1200S North side	Vegetation	6.06	0.692	BDL	Did not test	BDL/5.02/11.5
2018-22-1094	Weed veg Bell DT beans 1200S	Vegetation	*2890	21.2	224	Did not test	BDL/BDL/BDL
2018-22-1095	Soil sample Thomas beans North of Culvert	Soil	Did not test				
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC *minimum concentration reported due to amount exceeding calibration curve range.							
LOQ (ppb)		Vegetation	0.4	0.4	2	Did not test	0.3/0.3/0.3
Signature					Date	10/02/2018	



Figure One



Figure Two



Figure Three



Figure Four



Figure Five

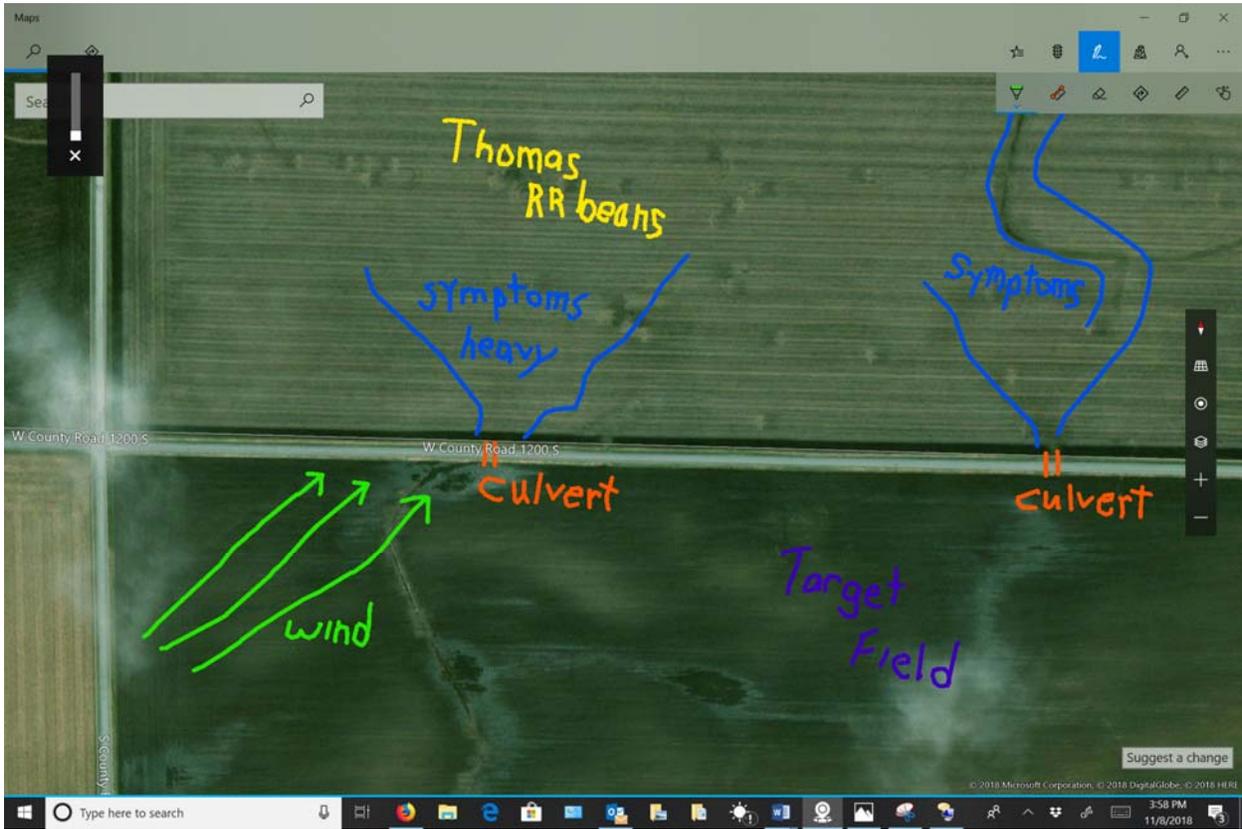


Figure Six

10. The label for Xtendimax states, *“DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON.” “Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.”*

Kevin W. Neal

Kevin W. Neal
Investigator

Date: November 7, 2018

Disposition: Brandon Bell was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation. Consideration was given to the fact this was his first violation of similar nature.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with both the off-target drift restrictions and the drift management restrictions on the label for the herbicide Xtendimax.

George N. Saxton

George N. Saxton
Compliance Officer

Draft Date: December 11, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0759

Complainant: Jack Knust
23 N. County Road 150 W.
Center Point, Indiana 47840
812-236-5352

Respondent: Chad Brown Private Applicator
1492 N. County Road 200 E.
Center Point, Indiana 47840
812-201-8621

1. On June 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 9, 2018, I met with the farm manager for Knust Farms Inc. Kegan Knust at a soybean field located near S. County Road 200 E. and E. County Road 200 S in Center Point, Indiana (See Fig. 5). Kegan Knust advised the field was owned by Jack Knust. Mr. Knust stated Knust Farms Inc. had several non-DT soybean fields in the area showing symptoms of dicamba injury.
3. On July 16, 2018, I again met with the farm manager for Knust Farms Inc. Kegan Knust at a soybean field located near S. County Road 200 E. and E. County Road 200 S in Center Point, Indiana. Keagan Knust advised this field was also owned by Jack Knust. Further, this soybean field bordered the field in paragraph 2 to the west with a waterway in between. (See Fig. 5). At the time of the first investigation, I was not made aware the field directly to the west was also owned by Jack Knust and showing symptoms of dicamba injury and therefore two separate investigations were done. Due to the fact the off target fields border each other and are owned by Jack Knust this case report pertains to both investigations done on Jack Knust's non-DT soybean fields.
4. During my on-site investigation for both investigations on July 9, 2018 and July 16, 2018 I did the following:
 - a. Looked for, and found two potential sources of a growth regulator type herbicide applications in the area. The target field for this particular case is located to the south east of Mr. Knust's soybean fields across a county road and another soybean field. (See Fig. 5). In regards to the other potential source of growth regulator type herbicide application located in the area reference case 2018/0689.
 - b. Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybean plants across Mr. Knust's soybean fields (See Fig. 1 and 2). Symptoms were visible throughout Mr. Knust's soybean fields. Symptoms were notably more severe on the east end of the Mr. Knust's east field. These symptoms are commonly

associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.

- c. Collected samples of injured soybean plants from both of Mr. Knust's fields for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
- d. Collected composite soil and vegetation samples from the target soybean field. Collected gradient soil and vegetation samples from both of Mr. Knust's soybean fields (See Fig. 5). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

- Fig. 1 is Mr. Knust east field non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is Mr. Knust west field non-DT soybeans with cupped/puckered leaves and discolored leaf tips.

- Fig. 3 is looking northwest from the east border of Mr. Knust's non-DT soybean field
- Fig. 4 is looking northwest from the east border of Mr. Knust west non-DT soybean field.

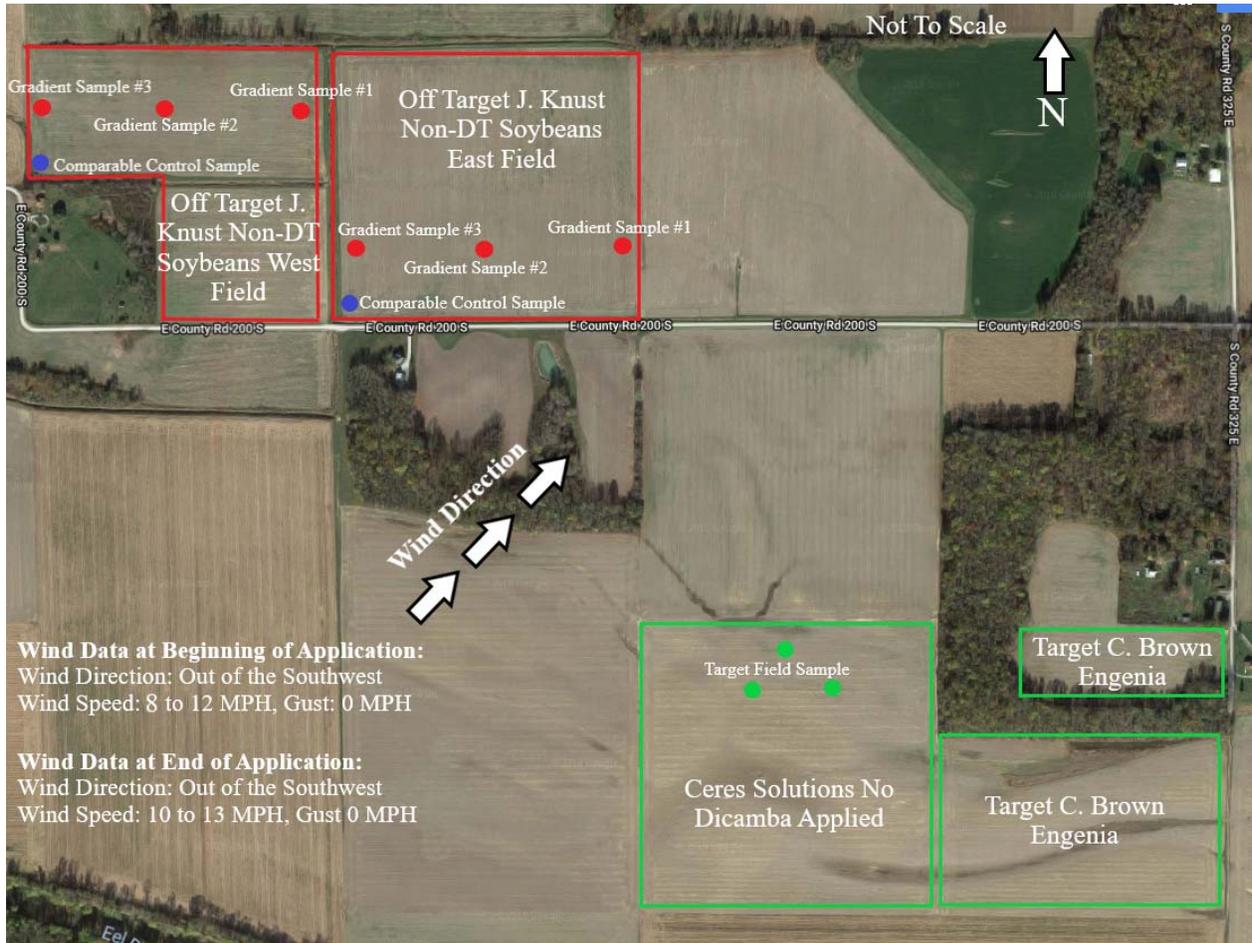


Fig. 5

- Fig. 5 is an aerial diagram of the fields including wind data, field property lines, and from where soil and vegetation samples were taken.
5. On July 18, 2018, I met with private applicator Chad Brown. I advised Mr. Brown I was a Pesticide Investigator for OISC and the complaint against him. Mr. Brown stated he was familiar with area and he had three fields to the southeast of Mr. Knust's fields across a county road and another soybean field. Mr. Brown stated no dicamba products were used in the field closet to Mr. Knust's field due to the close proximity of a different non-DT soybean field. Further, Mr. Brown stated he made an application of Engenia to the two other field's one right after the other with the same tank mix on June 18, 2018. I advised Mr. Schroer I would be sending him via email a Pesticide Investigation Inquiry for him to complete and return to me.

6. On July 26, 2018 I received a completed Pesticide Investigation Inquiry from Mr. Schroer which indicated the following:

- a. Private Applicator: Chad Brown
- b. Application Date and Time: June 18, 2018, 1:15pm to 2:07pm
- c. Pesticide Applied: Cornerstone Plus 5, EPA Reg. #31381-241, Glyphosate Section Three, EPA Reg. #66330-414-1381, Clethodium Engenia, EPA Reg. #7969-345, Dicamba, 12.8oz/Acre
- d. Adjuvants: Class Act Ridion, Superb, and Ag16098
- e. Target Field Location and Size: Riney Bottoms, 30 Acres
- f. Pre- or Post- Emergent Application: Post
- g. Wind Direction at Boom Height: Start- SW, End- SW
- h. Wind Speed at Boom Height: Start- 5mph, End- 7mph
- i. Nozzles and Pressure: Turbo TeeJet Induction TT1005, 40lbs
- j. Boom Height: 20 to 24 inches
- k. Downwind Buffer: No – 100% adjacent property.
- l. Checked Registrants Website before application: Yes, June 9, 2018
- m. Checked DriftWatch before application: Yes, June 8, 2018
- n. Dicamba Mandatory Training Attended: Yes, January 12, 2018 #18110029

7. Weather history data was obtained at www.wunderground.com from the three closest official weather station to the application site. The locations and weather data for June 18, 2018 follow:

- Terre Haute Regional Airport (KHUF) located in Terre Haute, Indiana 13 miles to the northwest of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/18/2018	12:53 PM	91 F	SW	9 MPH	0 MPH
6/18/2018	1:53 PM	91 F	SW	10 MPH	0 MPH

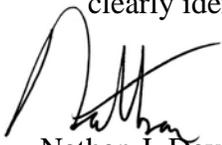
- Indianapolis International Airport (KIND) located in Indianapolis, Indiana 46 miles to the northeast of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/18/2018	12:54 PM	90 F	WSW	12 MPH	0 MPH
6/18/2018	1:54 PM	91 F	SW	13 MPH	0 MPH

- Lawrenceville-Vincennes International Airport (KLWV) located in Lawrenceville, Illinois 50 miles to the southwest of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/18/2018	12:53 PM	90 F	SW	8 MPH	0 MPH
6/18/2018	1:53 PM	92 F	SW	12 MPH	0 MPH

8. The triangulated wind data from the Terre Haute Regional Airport (KHUF), Indianapolis International Airport (KIND), and Lawrenceville-Vincennes International Airport (KLWV) indicate the wind speed during the application was between 8mph and 13mph with no gust. Further, the wind was out of the southwest and not blowing in the direction of Mr. Knust fields.
9. The reports from the PPPDL samples taken from both of Mr. Knust fields stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*
10. Soil and vegetation samples taken during the investigations were not analyzed by the OISC Residue Laboratory due to both dicamba applications made in the area applying the same tank mix partners and analyzing the samples would not produce results beneficial to the investigations.
11. On September 14, 2018, I spoke to Mr. Brown in regards to if he used the required downwind buffer during the application of Engenia. Mr. Brown stated he did not use a downwind buffer during the application and nobody else around him uses a downwind buffer when woods are downwind. The label for *Engenia, EPA Reg. #7969-345, Active Ingredient = dicamba* states, **“Maintain a 110 foot buffer when applying this product from the downwind outer edges of the field”**.
12. The triangulated wind data from the Terre Haute Regional Airport (KHUF), Indianapolis International Airport (KIND), and Lawrenceville-Vincennes International Airport (KLWV) indicate the wind speed during the application was between 8 mph (legal application) and 13 mph with no gust. The wind directions were all from the south or west blowing away from the complainant’s field. Since two locations showed winds 10 mph or below, the benefit of the doubt was given to the applicator, especially since wind direction is usually more reliably corroborated or refuted by various weather data sources than wind speed. Wind speed data can vary significantly based on location and height of weather station.
13. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide *Engenia, EPA Reg. #7969-345, Active Ingredient = dicamba*. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.


Nathan J. Davis
Investigator



Date: September 14, 2018

Disposition: Chad Brown was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management for not leaving a buffer. A civil penalty in the amount of \$100.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



George N. Saxton
Compliance Officer

Draft Date: November 13, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0769

Complainant: Jim Hawkins
703 N 800 W
Fowler, Indiana 47944
765-363-0331

Respondent: Timothy Talbert
Crop Production Services
1777 N 2800 E
Sheldon, Illinois 60966
815-867-1313

Certified Applicator
Licensed Business

1. On July 11, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 11, 2018, I met with the complainant to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC. The complainant advised me that he believed his non-DT Liberty Link beans had been damaged by an application made by Mr. Talbert to a nearby bean field.
3. During my on-site investigation I did the following:
 - a) Looked for and discovered there was another potential dicamba application made in the area adjacent to the impacted site. (See Case #2018/0768)
 - b) Observed and photographed what I believed to be fairly uniform dicamba exposure symptoms (figure 1) throughout the complainant's non-target, non-DT soybean field (figure 2) located to the north of the target field. The target field and the complainant's non-target field were adjacent to one another.
 - c) Collected soybean plant samples from impacted areas of the complainant's non-target soybean field for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
 - d) Collected samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted soybean plants from complainant's non-target soybean field;
 - e) Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks (figure 3).
4. On July 12, 2018, I collected written records from the applicator Mr. Talbert.
 - a) Application date & time: June 6, 2018 from 11:11am to 12:06pm;
 - b) Target field: soybean field to the south of complainant's soybean field;

- c) Pesticides: Engenia (dicamba) EPA Reg. #7969-345 & Zidua (pyroxasulfone) EPA Reg. #7969-338 & Makaze Yield Pro (glyphosate) EPA Reg. #34704-1033 & Intensity (clethodim) EPA Reg. #34704-864;
- d) Application rate: Engenia 12.8 oz. per acre Zidua 1.5 oz. per acre Makaze 1 qt. per acre Intensity 5 oz. per acre;
- e) Adjuvants: None;
- f) Nozzles: TTI 11005
- g) Boom height: 24 inches
- h) Ground speed: 8-10 mph
- i) Winds: 4-5 mph from the south southeast;
- j) Applicator: Timothy Talbert;
- k) Certified supervisor: not applicable;
- l) Left a 110' untreated buffer next to non-target site: yes 120 feet
- m) Checked registrant's web site before application: Yes April, 2018
- n) Checked Field Watch before application: Yes April 12, 2018
- o) Surveyed application site before application: Yes April 12, 2018

5. I searched wind data from www.weatherunderground.com for zip code 47921 in Boswell, Indiana for the reported date and time of the application. The results of that search indicated that wind speed and direction during the application were as follows:

As recorded at Purdue University 6-7 mph direction variable

10:54 AM	66 ° F	53 ° F	63 %	VAR	7 mph	0 mph
11:54 AM	69 ° F	54 ° F	58 %	VAR	6 mph	0 mph

Purdue University Wind Data 28 Miles East Southeast

As recorded at Jasper County Indiana 6-8 mph out of the Southeast

11:15 AM	70 ° F	43 ° F	38 %	SE	7 mph	0 mph
11:35 AM	70 ° F	43 ° F	38 %	ESE	6 mph	0 mph
11:55 AM	72 ° F	43 ° F	35 %	SE	6 mph	0 mph
12:15 PM	72 ° F	41 ° F	33 %	SSE	8 mph	0 mph

Jasper County Wind Data 28 Miles Northeast

- 6. The winds would have been blowing in the direction of the complainants beans.
- 7. The report from the PPPDL states, "*Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.*"
- 8. The report from the OISC Pesticide Residue Laboratory states:

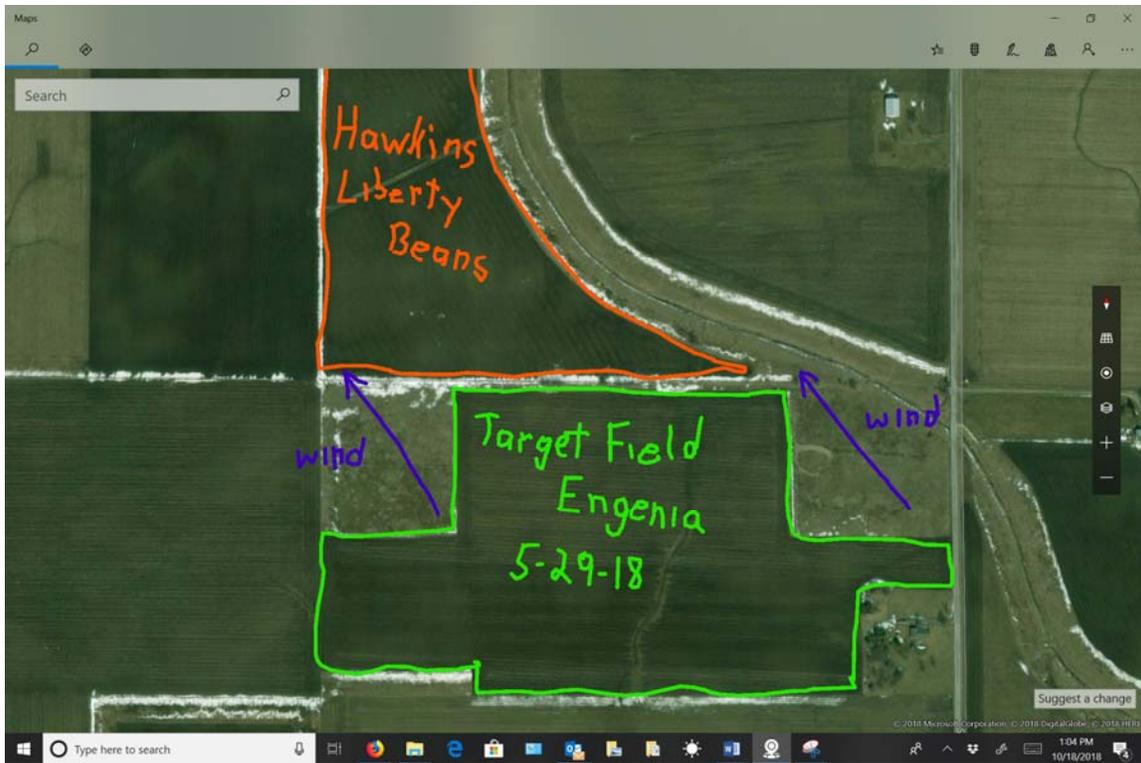
Case #	2018/0768		Investigator				K. Neal	
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)					
			Temboatrione	Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-22-1088	Soil sample Sondergrath corn Division Rd	Soil	Did not test	16.5	65.0	BDL	526	804
2018-22-1089	Soil sample Puetz corn Division Rd	Soil	Did not test	BDL	BDL	BDL	607	781
2018-22-1090	Liberty Link beans Hawkins Division Rd North	Vegetation	Did not test	2.70	BDL	BDL	BDL	BDL
2018-22-1091	Liberty Link beans Hawkins Division Rd Southwest	Vegetation	Did not test	1.80	BDL	BDL	BDL	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC								
LOQ (ppb)	Soil	Did not test	0.2	0.2	2	10	125	
LOQ (ppb)	Vegetation	Did not test	0.4	0.4	2	25	125	
Signature						Date	09/27/18	



Figure One



Figure Two



9. The label for Engenia states, “DO NOT apply when wind is blowing in the direction of neighboring sensitive crops.” Also, “DO NOT tank mix any product with Engenia unless: You check the list of EPA approved products for use with Engenia at www.engeniatankmix.com no more than 7 days before applying Engenia.”

Kevin W. Neal

Kevin W. Neal
Investigator

Date: October 18, 2018

Disposition: Timothy Talbert was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of the registrant’s website within seven (7) days of application.

Timothy Talbert was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$250.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.

George N. Saxton

George N. Saxton
Compliance Officer

Draft Date: November 29, 2018
Final Date: February 7, 2019

CASE SUMMARY

Case #2018/0776

Complainant: Steve Thomas
4671 W. 1150 S.
Brookston, Indiana 47923
765-427-0323

Respondent: James Fields Private Applicator
4527 E. County Line N.
Battleground, Indiana 47920
765-479-0966

1. On July 11, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans from the bean field across the road.
2. On July 11, 2018, I met with the complainant to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC. The complainant advised me that he believed his non-DT Roundup Ready beans had been damaged by an application made by Mr. Fields to a nearby bean field.
3. During my on-site investigation I did the following:
 - a) Looked for and discovered there were no other potential dicamba applications made in the area adjacent to the impacted site.
 - b) Observed and photographed what I believed to be fairly uniform dicamba exposure symptoms (figure 1) throughout the complainant's non-target, non-DT soybean field (figure 2) located to the east of the target field. The target field and the complainant's non-target field were separated by county road 300W about forty-five (45) feet. (figure 3)
 - c) Collected soybean plant samples from impacted areas of the complainant's non-target soybean field for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
 - d) Collected samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted soybean plants from complainant's non-target soybean field;
 - ii) Soil from target field
4. Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks. (figure 4)
5. On July 19, 2018, I collected written records from the applicator Mr. Fields.
 - a) Application date & time: June 17, 2018 from 1:30pm to 3:45pm;
 - b) Target field: soybean field to the west of complainant's soybean field;
 - c) Pesticides: Xtendimax (dicamba) EPA Reg. #524-617 and Roundup PowerMax (glyphosate) EPA Reg. #524-549;
 - d) Application rate: Xtendimax 22 oz. per acre Roundup PowerMax 22 oz. per acre;

- e) Adjuvants: Reign and Radiate;
- f) Nozzles: TTI 11003
- g) Boom height: 36 inches
- h) Ground speed: 7.6 mph
- i) Winds: 3-9 mph from the south southwest;
- j) Applicator: James Fields;
- k) Certified supervisor: not applicable;
- l) Left a 110' untreated buffer next to non-target site: yes 120 feet plus road
- m) Checked registrant's web site before application: No
- n) Checked Field Watch before application: No
- o) Surveyed application site before application: No

6. I searched wind data from www.weatherunderground.com for zip code 47920 in Brookston, Indiana for the reported date and time of the application. The results of that search indicated that wind speed and direction during the application were as follows:

As recorded at Purdue University 5-12 mph variable South Southwest

1:54 PM	90 ° F	73 ° F	57 %	VAR	5 mph	0 mph
2:54 PM	91 ° F	73 ° F	55 %	SSW	9 mph	0 mph
3:54 PM	91 ° F	73 ° F	55 %	SW	12 mph	0 mph

Purdue University Wind Data 8 Miles South

- 7. The wind would have been blowing in the direction of the complainants beans.
- 8. The report from the PPPDL states, *“Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.”*



Figure One



Figure Two



Figure Three

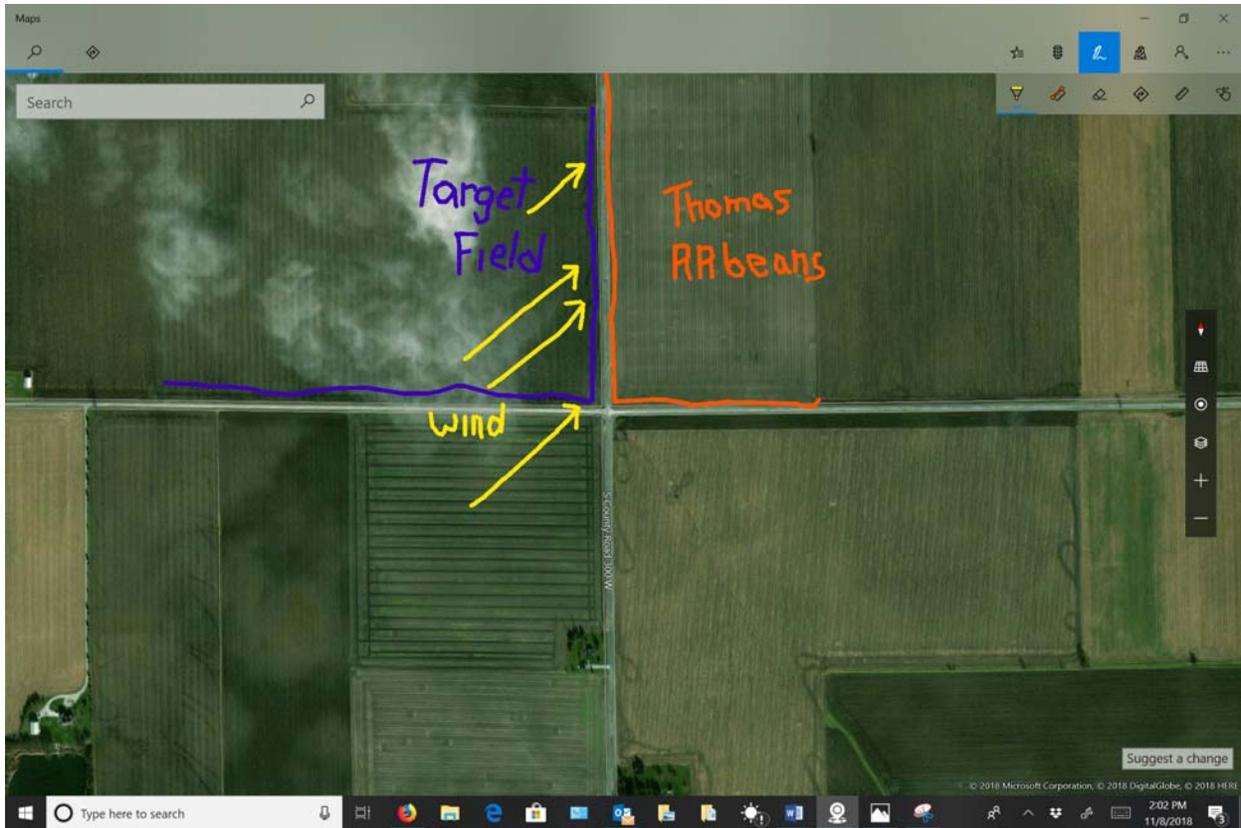


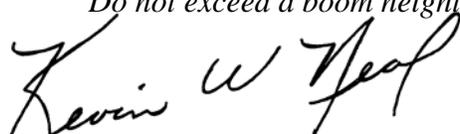
Figure Four

9. The label for Xtendimax states, “Record that a sensitive crop registry was consulted; or document surveying neighboring fields for any susceptible crops prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted or the survey of neighboring fields and the date conducted.”

“Before making an application, the applicator must survey the application site for adjacent non-target susceptible crops. The applicator must also consult applicable sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site.”

“DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON.”

“Do not exceed a boom height of 24 inches above target pest or crop canopy.”


Kevin W. Neal
Investigator

Date: November 8, 2018

Disposition: James Fields was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Xtendimax. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application.



George N. Saxton
Compliance Officer

Draft Date: December 11, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0780

Complainant: Sunshine Adams
100 Stonegate Drive
New Castle, Indiana 47362
765-524-9746

Respondent: Jim Robinson Certified Applicator
Ag Max Agricultural Helicopter Services
7000 Airport Drive
Sellersburg, Indiana 47172
812-246-5761

1. On July 11, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report aerial agricultural pesticide drift to her and her two children. She said she had clothing that she and her children were wearing that have not been laundered that OISC can analyze with the understanding the clothing would not be returned.
2. On July 13, 2018, I met with Ms. Adams at her residence. She stated on July 11, 2018 at approximately 2:45 pm, she was walking the dog with her daughter Aria age 10 and cousin Dylan age 10 along the west side of IN 103 in the apartment complex property. She stated she saw a red helicopter spraying the cornfield on the east side of the highway. As she saw the helicopter was coming towards them, she told the kids to run back towards the apartment. She stated they got to the tree by the apartment building as the helicopter banked over the roadway and the entrance of the apartment complex. She stated she felt a mist hit them. She felt as though the wind off the helicopter rotor blades pushed the pesticide across the front lot of the apartment complex. She stated they came inside; showered herself and the kids, and cleaned the dog. She then called the health department who gave her the OISC number. She stated she bagged the shirts from herself and the kids and placed them in the refrigerator. She stated they did not seek any medical attention.
3. I had Mrs. Adams show me where she was standing at the time she felt the mist. I then took photographs of the scene. I collected the clothing from Mrs. Adams, as well as vegetation samples from the target cornfield and from where Mrs. Adams was standing when she said she felt the mist. I also collected swab samples from the stop sign at the entrance of the apartment complex, a stone at the front of the apartment complex property and from the apartment building. All of the samples were labeled and submitted to the OISC residue lab. The following photographs show the scene.



4. I then learned AG Max Agricultural Helicopter Services had made the aerial pesticide application to the target cornfield. I made contact with Mr. Joshua Pollert of Ag Max. He advised me Ag Max did make the aerial

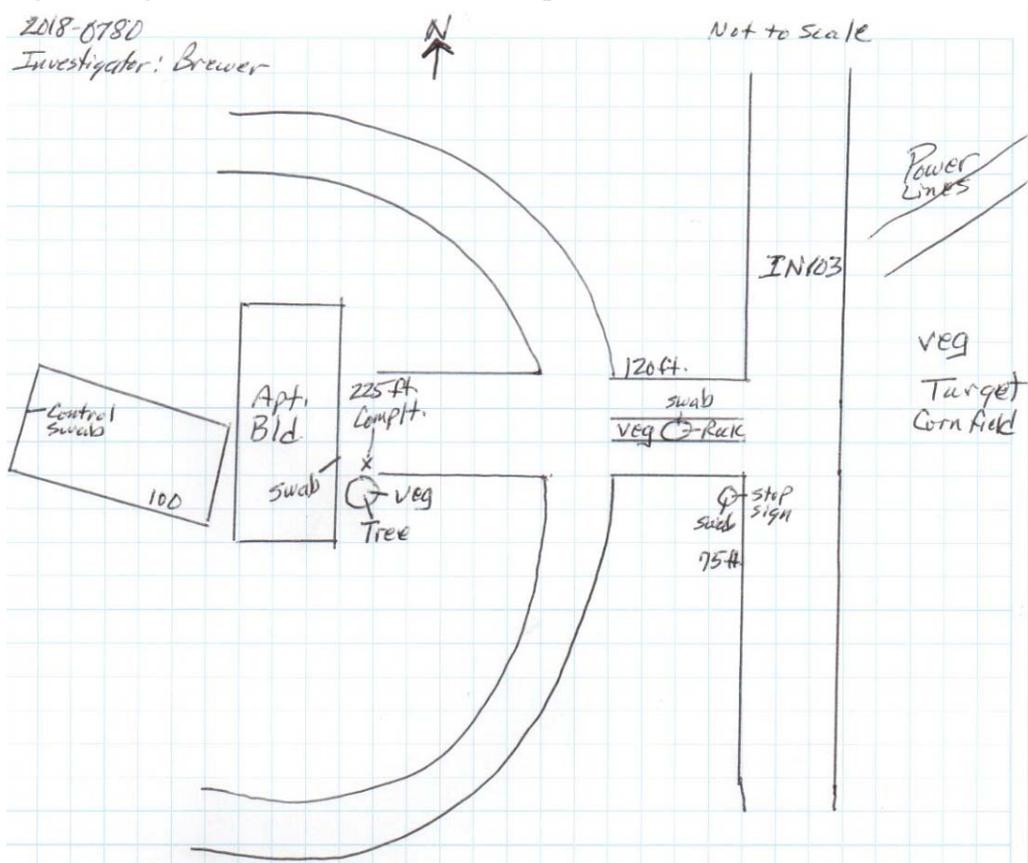
pesticide application on July 11, 2018, job #1062197. He stated Mr. Jim Robinson was the certified applicator who made the application. He stated Mr. Robinson applied Stratego YLD fungicide EPA Reg. #264-1093 with the active ingredients prothioconazole and trifloxystrobin. Mr. Pollert sent me the application record for that aerial application. The record did not have the application times or the wind speed and direction on it. I sent a Pesticide Investigation Inquiry (PII) to Mr. Pollert and Mr. Robinson. They received the PII, completed it and returned it to me. The PII stated the aerial application was made on July 11, 2018 between 6:00 pm – 7:00 pm. It further stated the wind direction was 48 degree (NE) at 7 mph.

5. While at the scene, I made contact with maintenance at the apartment complex. I asked if they had applied any fungicides to the apartment complex property. They advised they had not applied any fungicides.
6. On October 5, 2018, I received a report from the OISC residue lab. The report indicated the active ingredients prothioconazole and trifloxystrobin were detected in all of the samples I collected. The following is a copy of the OISC residue lab report.

Case # 2018/0780			Investigator: B. Brewer			
Sample #	Sample Description	Sample Matrix	Amount Found (ng/swab, ppb or ng/clothing)			
			Prothioconazole	Prothioconazole Desthio	Trifloxystrobin	Trifloxystrobin acid
2018-33-6178	Trip blank	Swab	BDL	BDL	BDL	BDL
2018-33-6179	Control swab	Swab	BDL	4.45	45.6	BDL
2018-33-6180	Swab stop sign	Swab	460	3800	84000	28.6
2018-33-6181	Swab entrance stone	Swab	70.6	141	1591	2.2
2018-33-6182	Swab apt building	Swab	BDL	39.9	291	BDL
2018-33-6183	Vegetation corn target	Vegetation	Detected**	209	694*	23.0
2018-33-6184	Vegetation where complainant was standing	Vegetation	Detected**	587	7040	19.6
2018-33-6185	Complainant clothing	Clothing	388000	20600	652000	51.3
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC *Minimum concentration reported due to amount exceeding calibration curve ++ In vegetation, Prothioconazole quickly degraded to Prothioconazole-Desthio hence the exact amount cannot be determined.						
LOQ (ppb)	Vegetation		NA	0.7	3	0.7
LOQ (ng/swab)	Swab		20	0.2-2	0.2-1	0.4
LOQ (ng/clothing)	Clothing		2500	250	25	50
Signature			Date	10/05/18		

7. I checked the Weather Underground website for the weather conditions at the date and time of the aerial pesticide application. Due to the discrepancy between the time the complainant stated she observed the helicopter making the application and the time stated on the PII by Mr. Robinson, I documented the weather for both times. The website indicated the winds on the date of the application at 2:30 pm were ESE at 2 – 4 mph. The website indicated the winds on the date of the application from 6:00 pm – 7:00 pm were variable from ESE, E, NNE at 2 – 6 mph.

8. I researched the label for Stratego YLD fungicide. The label stated on page 3, "Do not apply this product in a way that will contact workers or other persons, either directly or through drift". It further stated on page 5, "Do not make applications when conditions favor drift beyond the target application area".
9. The following is a diagram of the scene and of the sample collection locations.



10. The results of the OISC residue lab, along with the weather data, which at both times indicated the winds were blowing towards the apartment complex, indicate pesticide from the aerial pesticide application made by Mr. Robinson did move off target onto the complainant and children's person and onto the apartment complex property.

Robert D. Brewer
 Robert D. Brewer
 Investigator

Date: October 29, 2018

Disposition: Jim Robinson was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$500.00 was assessed to Ag Max Agricultural Helicopter Services. In addition, Mr. Robinson's pesticide applicators license was suspended for one hundred eighty days from receipt of this notice. Consideration was given to the fact this was his second violation of similar nature (see 2017/1040) and there was potential for human harm.

Mr. Robinson's license will be reinstated on June 13, 2019.

George N. Saxton
 George N. Saxton
 Compliance Officer

Draft Date: December 7, 2018
 Final Date: January 17, 2019

CASE SUMMARY

Case #2018/0784

Complainant: Lynn Swagger
9400 E 400 N
Van Buren, IN 46991
765-661-1595

Respondent: AgBest LLC
Jacey Paulson
1746 E 200 N
Hartford City, IN 47348
765-348-1254

Licensed Business
Certified Applicator

1. On July 12, 2018, Lynn Swagger spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a possible dicamba drift to his soybeans. Mr. Swagger stated he first noticed injury to his soybeans approximately two weeks ago.
2. On July 17, 2018, I contacted AgBest LLC regarding this investigation. I received a completed Pesticide Investigation Inquiry (PII) form from Jacey Paulson. Mr. Paulson documented he made an application on June 16, 2018, between 11:00am and 11:25am, using Xtendimax (EPA Reg. #524-617, active ingredient dicamba) and Roundup Powermax (EPA Reg. #524-529, active ingredient glyphosate). Mr. Paulson documented the wind was 5 mph out of the south, blowing toward Mr. Swagger's Liberty soybeans.
3. On July 18, 2018, I met Mr. Swagger at his Liberty soybean field located west of County Road 1200 E. and north of County Road 400 N. in Van Buren, Indiana. I observed exposure symptoms on the south end of Mr. Swagger's field and the north end of Mr. Swagger's field from an application by another applicator. (See case summary 20180913). See figure 1 and site diagram.



Figure 1-Cupped leaves on right



Site Diagram

4. On July 18, 2018, I collected a vegetation sample to be visually analyzed by Purdue's Pest and Plant Diagnostic Lab (PPDL). Furthermore, I collected other investigative samples; however, the samples were not analyzed due to Mr. Paulson's PII admission of a label violation.
5. On July 19, 2018, PPDL reported the following:

Diagnosis and Recommendations

Host/Habitat	Soybean (Glycine max); Cultivar: Liberty
List of Diagnosis/ID(s)	
	Suspected for Herbicide injury; Exposure (Abiotic disorder)
	Suspected for Soybean sudden death syndrome (Fusarium virguliforme)

Final Report

7-19-18

Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.

Joe Ikley
 Weed Science Program Specialist
 Purdue University
 e-mail - jikley@purdue.edu
 Office - (765) 496-2121

7-19-18

Discoloration of the cortical tissue in the roots and stems of this soybean sample is suggestive of Sudden Death Syndrome (SDS).

<https://cropprotectionnetwork.org/library/>

Gail Ruhl
 Plant Disease Diagnostician

6. Label language for Xtendimax states in part, “*DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON.*”



Paul J. Kelley
Investigator

Date: October 29, 2018

Disposition: Jacey Paulson was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. AgBest LLC was assessed a civil penalty in the amount of \$250.00. Consideration was given to the fact this was Jacey Paulson’s first violation of similar nature.



George N. Saxton
Compliance Officer

Draft Date: December 5, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0793

Complainant: Barbara Goldblatt
728 Downing Drive
Greenwood, IN 46143
317-859-1897

Respondent: David Richardson
Hoosier Lawn Maintenance
1745 E 500 N
Whiteland, IN 46184
317-535-6500

Certified Applicator
Licensed Business

1. On August 22, 2018, Barbara Goldblatt spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a possible drift and human exposure. Ms. Goldblatt stated she was outside in her yard when she smelled what she believed to be lawn care chemicals. She stated she was hit in the face with the chemicals before she could get in the house.
2. On August 23, 2018, I met with the complainant Barbara Goldblatt at her residence. Mrs. Goldblatt stated on August 21, 2018 she was on the east side of her house working in her yard. Mrs. Goldblatt stated she could hear a motor running close to her and she smelled what she thought were lawn care chemicals. Mrs. Goldblatt stated she saw a subject riding on an applicator machine next door applying lawn care chemicals. Mrs. Goldblatt stated she went into her residence and shut all the windows. I asked Mrs. Goldblatt if she had exposure to her person from the pesticides and she stated no she did not; she could just smell it.
3. During my onsite investigation I did the following
 - a. Documented the area with photographs.
 - b. I did not observe any symptomology on trees or ornamentals consistent with pesticide injury.
 - c. Took swab and vegetation samples from the south side of Mrs. Goldblatt's residence closet to the target yard. Also took comparable control swab and vegetation samples from the north side of Mrs. Goldblatt's residence. The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

- Fig. 1 is looking southeast between the two residence along the property line, Mrs. Goldblatt's residence is on the left in the picture.
- Fig. 2 is a window on the south side of Mrs. Goldblatt's residence where I took a swab sample from.
- Fig. 3 is the north side of Mrs. Goldblatt's residence where comparable control samples were taken from.
- Fig. 4 is a picture taken by Mrs. Goldblatt of the applicator making the application next door.
- Fig. 5 is a picture taken by Mrs. Goldblatt of the applicators vehicle with Hoosier Lawn Maintenance on the side.



Fig. 6

- Fig. 6 is an aerial diagram of the area of application including wind data, property lines and where swab and vegetation samples were taken from.
4. On August 24, 2018, I contacted Hoosier Lawn Maintenance and spoke to the owner Ron Condra. I advised Mr. Condra I was a Pesticide Investigator with OISC and the complaint against Hoosier Lawn Maintenance. Mr. Condra advised he was aware of the complaint and had been in contact with Mrs. Goldblatt. Mr. Condra stated the certified applicator who made the application was David Richardson. Further, Mr. Condra stated they put in the service invoice notes for this application to stay away from the neighbor's lawn since she is an environmentalist and therefore are extra careful when they make this application. I advised Mr. Condra I would need him to send me the service invoice for this specific application.
 5. On August 28, 2018, I received the service invoice from Hoosier Lawn Maintenance for the application done on August 21, 2018 which indicated the following:

- a. Certified Applicator: David Richardson
- b. Application Date and Time: August 21, 2018, 10:35am to 10:55am
- c. Pesticide Applied: Surge, EPA Reg. #2217-867, Active Ingredients = Sulfentrazone, Dicamba, Mecoprop and 2,4-D
Lesco Three Way, EPA Reg. #10404-43, Active Ingredients = Mecoprop, Dicamba, and 2,4-D
- d. Service Address: 746 Downing Dr.
Greenwood, Indiana 46143
- e. Wind Direction: Left blank
- f. Wind Speed: Left blank

6. Weather history data was obtained at www.wunderground.com from the three closest official weather station to the application site. The locations and weather data for August 21, 2018 follow:

- Indianapolis International Airport (KIND) located in Indianapolis, Indiana 13 miles to the northwest of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Gust
8/21/2018	10:18am	72 F	SW	13 MPH	0 MPH
8/21/2018	10:54am	73 F	WSW	14 MPH	0 MPH

- Shelbyville Municipal Airport (KGEZ) located in Shelbyville, Indiana 17 miles to the west of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Gust
8/21/2018	9:53am	72 F	WSW	14 MPH	0 MPH
8/21/2018	10:42am	72 F	WSW	9 MPH	0 MPH

- Columbus Municipal Airport (KBAK) located in Columbus, Indiana 26 miles to the south of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Gust
8/21/2018	9:45am	72 F	SW	12 MPH	0 MPH
8/21/2018	10:45am	72 F	SSW	16 MPH	0 MPH

7. The triangulated wind data from the Indianapolis International Airport (KIND), Shelbyville Municipal Airport (KGEZ), and Columbus Municipal Airport (KBAK) indicate the wind speeds during the application were between 9mph and 16mph with no gusts out of the southwest.

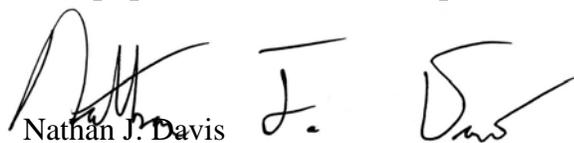
8. The OISC Residue Laboratory analyzed the samples collected from Mrs. Goldblatt's residence for 2,4-D, mecoprop, and dicamba, its breakdown products DCSA and 5-OH dicamba, and reported the following:

Case #	2018/0793		Investigator	N. Davis			
Sample #	Sample Description	Matrix	Amount of Analyte				
			2,4-D	5-OH Dicamba	DCSA	Dicamba	MCP
2018-39-9696	Trip Blank Swab	Swab	BQL	BDL	BDL	BDL	BDL
2018-39-9697	Comparable Control Acetone Swab N. Side Window	Swab	BQL	BDL	BDL	BQL	BDL
2018-39-9698	Acetone Swab S. Side Window	Swab	BQL	BDL	BDL	BDL	BDL
2018-39-9699	Shirt worn by complainant	Clothing	Did not test	Did not test	Did not test	Did not test	Did not test
2018-39-9700	Comparable Control Composite Veg N. Side (Weeds)	Vegetation	Did not test	Did not test	Did not test	Did not test	Did not test
2018-39-9701	Composite Veg S. Side (Weeds)	Vegetation	Did not test	Did not test	Did not test	Did not test	Did not test
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC							
LOQ (ng/swab)	Swab		1	1	1	1	1
Signature					Date	09/20/18	

9. According to the OISC Residue Laboratory analysis for the swab samples taken 2,4-D was below quantification limits. Mecoprop, dicamba, its breakdown products DCSA and 5-OH dicamba were all below detection limits. Due to 2,4-D being below quantification limits and Mecoprop, dicamba, its breakdown products DCSA and 5-OH dicamba being below detection limits vegetation samples were not analyzed. Further, the shirt worn by Mrs. Goldblatt was not analyzed due to her statement that she was not exposed to the pesticides on her person.
10. On September 21, 2018, I contacted the certified applicator who made the application David Richardson in regards to the wind speed at the time of the application and personal protective equipment (PPE) worn during the application. When I inquired about wind speed during the time of the application Mr. Richardson stated he did not think the wind speeds were in excess of the required label wind speeds. Further, I advised Mr. Richardson of the photographs Mrs. Goldblatt had taken of him while he was making the application and I observed in the photographs he was not wearing chemical resistant waterproof gloves or a long sleeve shirt. Mr. Richardson stated he had applied water earlier in the day and forgot to put on a long sleeve shirt and he stated he was also not wearing chemical resistant waterproof gloves.
11. The triangulated wind data from the Indianapolis International Airport (KIND), Shelbyville Municipal Airport (KGEZ), and Columbus Municipal Airport (KBAK) indicate the wind speed during the application was between 9mph and 16mph with no gusts out of the

southwest blowing towards Mrs. Goldblatt's residence. The label for Surge, EPA Reg. #2217-867, Active Ingredients = Sulfentrazone, Dicamba, Mecoprop and 2,4-D states **"Apply only when wind speed is less or equal to 10 mph"**. The label for Lesco Three Way, EPA Reg. #10404-43, Active Ingredients = Mecoprop, Dicamba, and 2,4-D states **"Do not apply at wind speeds greater than 10mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for non-target species, non-target crops) within 250 feet downwind"**.

12. The evidence of the pictures supplied by Mrs. Goldblatt of Mr. Richardson making the application and the statements made by Mr. Richardson indicate Mr. Richardson was not wearing a long sleeve shirt or chemical resistant waterproof gloves during the application. The label for Surge, EPA Reg. #2217-867, Active Ingredients = Sulfentrazone, Dicamba, Mecoprop and 2,4-D states **"Applicators and other handlers must wear: Long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear"**. The label for Lesco Three Way, EPA Reg. #10404-43, Active Ingredients = Mecoprop, Dicamba, and 2,4-D states **"All mixers, loaders, applicators, and other handlers must wear: Long-sleeved shirt and long pants, shoes plus socks, protective eyewear (goggles, face shield, or safety glasses), chemical-resistant gloves (except for applicators using ground boom equipment) and chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate"**.


Nathan J. Davis
Investigator

Date: October 2, 2018

Disposition: David Richardson was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the use of personal protective equipment.

David Richardson was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application within 250 feet of a residential area. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact there was potential for human harm.


George N. Saxton
Compliance Officer

Draft Date: November 13, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0804

Complainant: Jim Hawkins
703 N 800 W
Fowler, Indiana 47944
765-363-0331

Respondent: Stephanie Spiros
Francois Lubbe
Walker Place
27 East Liberty Lane
Danville, Illinois 61832
217-443-3600

Reported Supervisor

1. On July 17, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 18, 2018, I met with the complainant to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC. The complainant advised me that he believed his non-DT Liberty Link beans had been damaged by an application made by Mr. Lubbe to a nearby bean field.
3. During my on-site investigation I did the following:
 - a) Looked for and discovered there were no other potential dicamba applications made in the area adjacent to the impacted site.
 - b) Observed and photographed what I believed to be dicamba exposure symptoms (figure 1) throughout the complainant's non-target, non-DT soybean field (figure 2) located to the east of the target field. It appeared to me that the symptoms were heavier near the target field and lighter farther to the east. The target field and the complainant's non-target field were immediately adjacent to one another. (figures 3, 4 & 5)
 - c) Collected soybean plant samples from impacted areas of the complainant's non-target soybean field for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
 - d) Collected samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted soybean plants from complainant's non-target soybean field;
 - ii) Soil from target field
 - iii) Weed vegetation from target field
4. Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks. (figure 6)
5. On August 2, 2018, I collected written records from the applicator Mr. Lubbe.
 - a) Application date & time: June 24, 2018 from 8:30am to 11:30am;
 - b) Target field: soybean field to the west of complainant's soybean field;

- c) Pesticides: Engenia (dicamba) EPA Reg. # 7969-345 and Cornerstone Plus (glyphosate) EPA Reg. #1381-241;
 - d) Application rate: Engenia (no response) Cornerstone Plus (no response);
 - e) Adjuvants: Class Act Rideon;
 - f) Nozzles: TTI 11005
 - g) Boom height: 24 inches
 - h) Ground speed: 10 mph
 - i) Winds: 6-9 mph from the northeast;
 - j) Applicator: Francois Lubbe;
 - k) Certified supervisor: None;
 - l) Left a 110' untreated buffer next to non-target site: none
 - m) Checked registrant's web site before application: Yes June 21, 2018
 - n) Checked Field Watch before application: Yes June 21, 2018
 - o) Surveyed application site before application: Yes
6. I searched wind data from www.weatherunderground.com for zip code 47948 in Goodland, Indiana for the reported date and time of the application. The results of that search indicated that wind speed and direction during the application were as follows.

As recorded at Jasper County Indiana 3-6 mph West Northwest

8:35 AM	72 ° F	61 ° F	69 %	W	6 mph	0 mph
8:55 AM	72 ° F	63 ° F	73 %	WNW	3 mph	0 mph
9:15 AM	73 ° F	63 ° F	69 %	WNW	3 mph	0 mph
9:35 AM	75 ° F	61 ° F	61 %	W	5 mph	0 mph
9:55 AM	75 ° F	61 ° F	61 %	WNW	6 mph	0 mph
10:15 AM	77 ° F	59 ° F	54 %	NW	5 mph	0 mph
10:35 AM	77 ° F	59 ° F	54 %	N	5 mph	0 mph
10:55 AM	79 ° F	57 ° F	47 %	NNW	6 mph	0 mph
11:15 AM	79 ° F	57 ° F	47 %	WNW	5 mph	0 mph
11:35 AM	79 ° F	55 ° F	44 %	NNW	6 mph	0 mph
11:55 AM	79 ° F	54 ° F	42 %	NNW	6 mph	0 mph

Jasper County Wind Data 13 Miles Northeast

- 7. Wind would have been blowing toward complainant's field.
- 8. The report from the PPPDL states, "*Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.*"
- 9. The report from OISC residue lab states:

Case #	2018/0804			Investigator	K. Neal		
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)				
			Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-22-1102	Soil sample Walker DT beans West	Soil	Did not test	Did not test	Did not test	Did not test	Did not test
2018-22-1103	Weed veg Walker DT beans West	Vegetation	Did not test	Did not test	Did not test	11800*	264
2018-22-1104	Hawkins Liberty Link beans 10 yds in	Vegetation	Did not test	Did not test	Did not test	BDL	BDL
2018-22-1105	Hawkins Liberty Link beans 50 yds in	Vegetation	Did not test	Did not test	Did not test	BDL	BDL
2018-22-1106	Hawkins Liberty Link beans 100 yds in	Vegetation	Did not test	Did not test	Did not test	BDL	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC							
*result exceeded calibration curve range and reported as minimum concentration found							
LOQ (ppb)	Vegetation	Did not test	Did not test	Did not test	10	125	
LOQ (ppb)	Soil	Did not test	Did not test	Did not test	Did not test	Did not test	Did not test
Signature						Date	11/13/18



Figure One



Figure Two



Figure Three



Figure Four



Figure Five

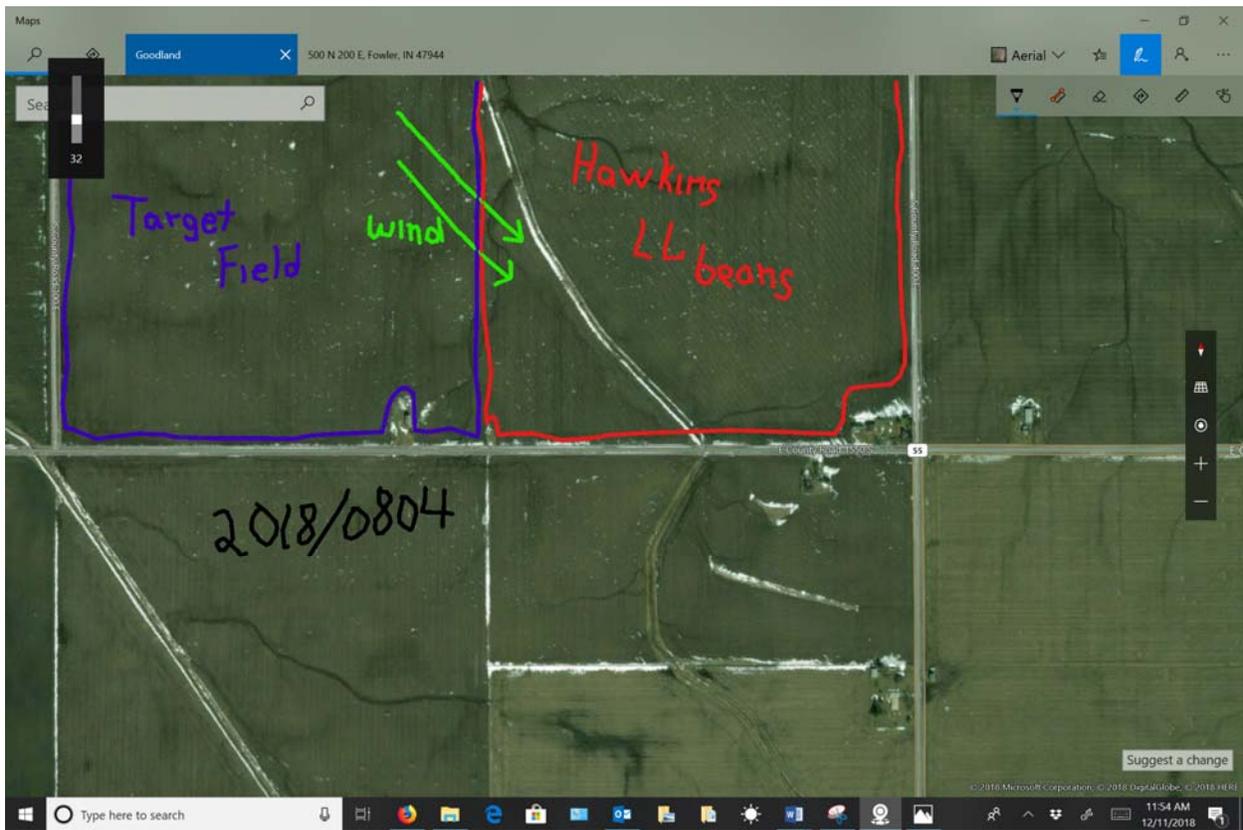
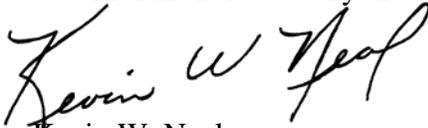


Figure Six

10. While checking to see if Mr. Lubbe had attended the mandatory Indiana dicamba training, which he did in Vermillion County on February 24, 2018, it was discovered Ms. Spiros, who identified herself as Mr. Lubbe’s supervisor, does not possess an Indiana credential of any kind that would allow her to supervise the application of restricted use pesticides in Indiana. Ms. Spiros indicated on the Pesticide Investigation Inquiry below Mr. Lubbe’s name that he was a Registered Technician with the number PA 61090.

11. On a separate record sheet Ms. Spiros indicated she was Mr. Lubbe's certified applicator by providing the same number PA 61090. As it turns out, this is Ms. Spiros' Private Applicator number for the state of Illinois.

12. A check of the OISC database does not find that Ms. Spiros has any credential in the state of Indiana nor does anyone with Walker Place or Walker Ag Group. (See 2018/1030)



Kevin W. Neal
Investigator

Date: November 20, 2018

Disposition: Walker Place was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

Although off-target movement of the dicamba herbicide was documented, OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



George N. Saxton
Compliance Officer

Draft Date: January 15, 2019
Final Date: February 27, 2019

CASE SUMMARY

Case #2018/0812

Complainant: Antonia Fisher
247 E 1000 S
Lynn, Indiana 47355
260-415-4487

Respondent: Ag Max
Jim Robinson
7000 Airport Drive
Sellersburg, Indiana 47172
812-246-5761

Licensed Business
Licensed Applicator

1. On July 18, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report aerial pesticide agricultural drift to her hay field, livestock, creek, and woods.
2. On July 23, 2018, I contacted Ag Max to obtain documentation of applications near Antonia Fisher's residence.
3. On July 24, 2018, I received documentation from Joshua Pollert, General Manager for Ag Max. Contained in the documentation were the application reports and aircraft tracking information. The documentation indicated Jim Robinson made several applications near the Fisher property. One application on July 17, 2018, was directly north of the Fisher property. The application time was 5:00pm-5:30pm. Ag Max records indicated Stratego fungicide (EPA Reg. 264-1093, active ingredients trifloxystrobin and propiconazole) was applied. Ag Max indicated the wind was 6mph out of the north, northwest.
4. On July 26, 2018, I met with Mrs. Fisher. Mrs. Fisher stated she became concerned when she noticed a helicopter banking over her property as it turned to make a pesticide application to the cornfield north of her property. Mrs. Fisher was concerned her hay field would be contaminated. Mrs. Fisher provided me photos of the helicopter as in flew over her property. See figure 1.



Figure 1-Photo taken by Mrs. Fisher of helicopter

5. On July 26, 2018, I collected vegetation samples from the target fields to the north and west of Mrs. Fisher's property. In addition, I collected vegetation samples from Mrs. Fisher's north pasture and west pasture. See site diagram.



Site diagram

6. On September 20, 2018, OISC's Residue Lab reported the following:

Case # 2018/0812			Investigator: J. Kelley		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Propiconazole	Trifloxystrobin	Trifloxystrobin Acid
2018-50-2107	CC-comparative control	Vegetation	BDL	1.11	3.85
2018-50-2108	NVT-vegetation from north target field	Vegetation	BDL	46.2	1060
2018-50-2109	NV1-vegetation 20 yds from north field	Vegetation	BDL	99.6	1070
2018-50-2110	NV2-vegetation 50 yds from north field	Vegetation	BDL	38.5	332
2018-50-2111	WVT-vegetation from west target field	Vegetation	BDL	0.502	BQL
2018-50-2112	WVT-vegetation 20 yds from west field	Vegetation	BDL	0.979	5.65
2018-50-2113	WV2-vegetation 50 yds from west field	Vegetation	BDL	BDL	5.63
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC					
LOQ (ppb)	Vegetation		3	0.3	3
Signature		Date	09/20/18		

7. Label language for Stratego states in part, “Do not make applications when conditions favor drift beyond the target application area.”
8. Based on the OISC Residue Lab report, in which a component of Stratego (trifloxystrobin) was detected, coupled with the Ag Max application report showing the wind was out of the north, northwest blowing toward Mrs. Fisher property, preponderance of the evidence indicated there were conditions that favored drift beyond the application area and off target movement of pesticides onto Mrs. Fisher’s property.



Paul J. Kelley
Investigator

Date: October 15, 2018

Disposition: Jim Robinson was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$500.00 was assessed for this violation. Consideration was given to the fact this was his second violation of similar nature. See case number 2017/1040



George N. Saxton
Compliance Officer

Draft Date: November 27, 2018

Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0818

Complainant: Gilbert Fortman
10828 E. 300 N.
Avilla, Indiana 46710
260-349-8955

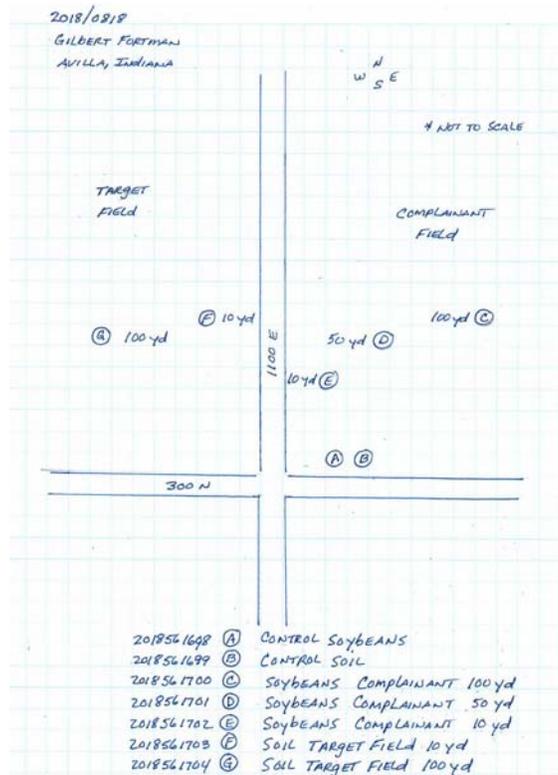
Respondent: Ed Huelsenback
7403 E. 400 S.
Laotto, Indiana 46763
260-242-1402

Private Applicator

1. On July 19, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 26, 2018, I made contact with the complainant, Gilbert Fortman. Mr. Fortman told me he believed his neighbor farmer made an application of dicamba. He said he noticed about one week ago what he believed to be dicamba-related symptoms to his non-dicamba tolerant (DT) Liberty Link soybeans.
3. I checked the complainant's soybean field for dicamba (growth regulator) exposure symptoms. I observed leaf puckering/cupping to the complainant's soybeans. I obtained soybean plants for submission to the Purdue Plant and Pest Diagnostic Lab (PPDDL) for analysis. (See photos below)



4. I placed the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis:
 - **2018561698** Control soybeans
 - **2018561699** Control soil
 - **2018561700** Soybeans complainant field 100 yds.
 - **2018561701** Soybeans complainant field 50 yds.
 - **2018561702** Soybeans complainant field 10 yds.
 - **2018561703** Soil target field 10 yds.
 - **2018561704** Soil target field 100 yds. (See diagram below)



5. I learned Ed Huelsenback made a pesticide application to the field west of the complainant's impacted field. I made contact with Mr. Huelsenback. He agreed to submit a completed Pesticide Investigation Inquiry (PII) for his application.
6. I received the following information from PPPDL: "*Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba*".
7. I received a completed PII from Mr. Huelsenback. According to the PII, Mr. Huelsenback made a pesticide application of **Engenia** (EPA #7969-345; active ingredient: dicamba) and **Buccaneer 5 Extra** (EPA #55467-15; active ingredient: glyphosate) on June 28, 2018 between 7:15am and 10:30am. He recorded the wind blowing at 3.5 miles per hour in a south-southeasterly direction toward the southwestern portion of the complainant's field. (See diagram above). In further review of the PII, I found Mr. Huelsenback completed all of the **Engenia** label record keeping requirements.
8. I checked weather data from www.wunderground.com. Weather data for June 28, 2018 for Avilla, Indiana area confirmed the applicator's PII information that the wind was blowing 3 to 6 miles per hour in a south-southeasterly direction.
9. I received the following analysis results from OISC Residue Lab:

Case #	2018/0818		Investigator		K. Gibson		
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)				
			Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-56-1698	Control soybeans	Vegetation	0.739	BDL	BDL	BQL	BDL
2018-56-1699	Control soil	Soil	BDL	BQL	BDL	BDL	BDL

2018-56-1700	Soybeans 100 yds complainant field	Vegetation	0.765	BDL	BDL	BQL	BDL
2018-56-1701	Soybeans 50 yds complainant field	Vegetation	0.738	BDL	BDL	BQL	BDL
2018-56-1702	Soybeans 10 yds complainant field	Vegetation	1.78	BDL	BDL	6.53	BDL
2018-56-1703	Soil 10 yds target field	Soil	BQL	1.75	BDL	203	209
2018-56-1704	Soil 100 yds target field	Soil	4.83	175	BDL	309	279
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC							
LOQ (ppb)	Vegetation		0.2	0.2	2	5	50
LOQ (ppb)	Soil		0.2	0.2	0.4	10	125
Signature					Date	11/19/18	

10. The lab analysis detected low levels of dicamba in the complainant's environmental samples, which did not support drift.
11. The label for Engenia reads in part, "**DO NOT** apply when wind is blowing in the direction of neighboring sensitive crops".
12. After reviewing available information, on the PII Mr. Huelsenback recorded the wind blowing 3.5 miles per hour in a south-southeasterly direction toward the southwest portion of the complainant's field at the beginning of the application. Therefore, Mr. Huelsenback is in violation of the **Engenia** label because he applied it when the wind was blowing in the direction of the complainant's sensitive crop (non-DT soybeans).



Kevin W. Gibson
Pesticide Investigator

Date: November 26, 2018

Disposition: Ed Huelsenback was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



George N. Saxton
Compliance Officer

Draft Date: December 13, 2018
Final Date: January 28, 2019

CASE SUMMARY

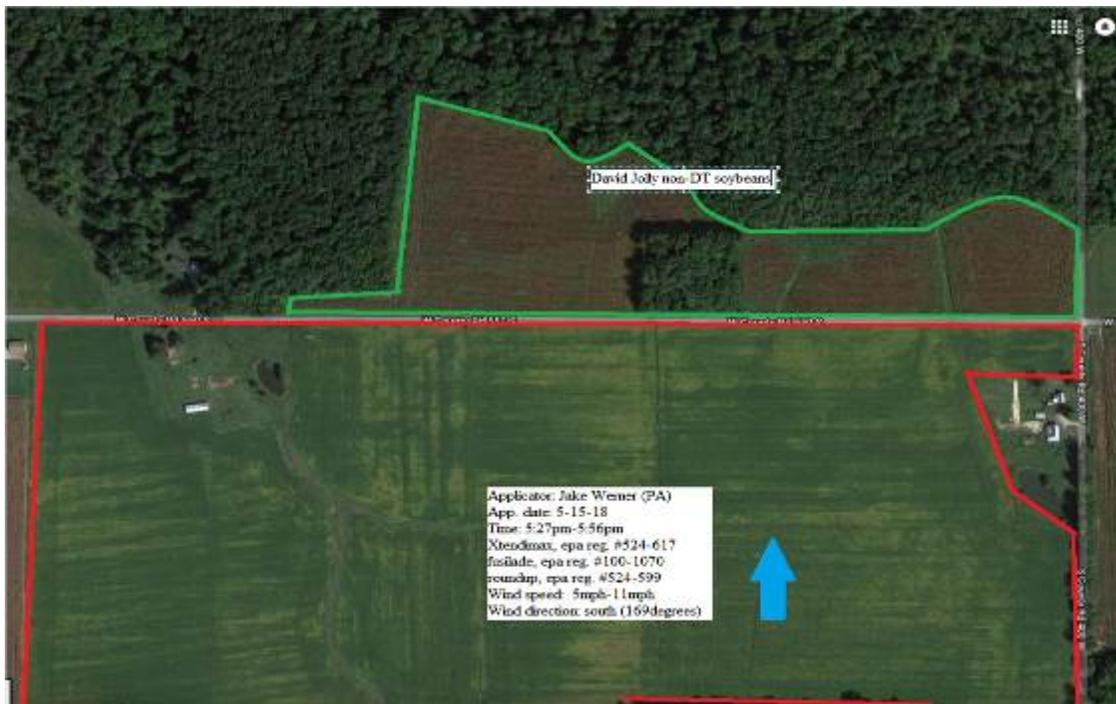
Case #2018/0832

Complainant: David Jolly
1013 W 500 S
Versailles, Indiana 47042
812-621-1319

Respondent: Jacob Werner
9757 S. US 421
Madison, IN 47250
812-621-1435

Private Applicator

1. On July 23, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On August 2, 2018, I went to David Jolly's field located north of West County Road 550 South in Versailles, Indiana. See site diagram. I observed cupped and crinkled leaves throughout Mr. Jolly's non-DT soybean field. See figure 1-2. I collected a vegetation sample to be visually analyzed by Purdue's Pest and Plant Diagnostic Lab (PPDL). Furthermore, I collected investigative samples; however, these sample where not analyzed due to Mr. Werner's admission of a label violation on the completed Pesticide Investigation Inquiry (PII) form.



Site Diagram



Figure 1-Cupped/crinkled leaves



Figure 2-Symptomology across field

- On August 3, 2018, I received the following from PPDL:

Diagnosis and Recommendations

Host/Habitat	Soybean (Glycine max)
List of Diagnosis/ID(s)	
Suspected for Herbicide injury; Exposure (Abiotic disorder)	

Final Report

8-5-18

Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.

Joe Ikley
 Weed Science Program Specialist
 Purdue University
 e-mail - jjikley@purdue.edu
 Office - (765) 496-2121

8-5-18

No fungal or bacterial disease and no insect/mite pests were observed to be associated with the symptoms of concern (foliar distortion).

Gail Ruhl
 Plant Disease Diagnostician

- On August 20, 2018, I received a completed PII from Jacob Werner. Mr. Werner documented he made an application on July 1, 2018, between 5:27pm and 5:56pm using Xtendimax (EPA Reg. #524-617, active ingredient dicamba) and fusillade (EPA Reg. #100-1070, active ingredient fluazifop-P-butyl). Mr. Werner documented the wind was out of the south blowing toward Mr. Jolly’s non-DT soybeans at 5mph-11mph. Furthermore, Mr. Werner did not attend the state mandatory dicamba training, or check any website.
- Label language for Xtendimax states in part, *“DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON.”*

“The applicator must check the list of tested products found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax® With VaporGrip® Technology.”

“Prior to applying this product in the 2018 growing season and each growing season thereafter, applicator(s) must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a EPA Reg. No. 524-617 Master Label October 2017 Page 8 of 40 registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.”



Paul J. Kelley
Investigator

Date: October 29, 2018

Disposition: Jacob Werner was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation. In addition, his Private Applicator permit and certification were revoked for a period of five (5) years, beginning January 11, 2019.



George N. Saxton
Compliance Officer

Draft Date: December 5, 2018

Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0833

Complainant: Mike Diener
373 N. Diener Road
Reynolds, Indiana 47980
219-207-0109

Respondent: Garrett Meents
Monticello Farm Service
1415 N. 6th Street
Monticello, Indiana 47960
574-583-8238

Certified Applicator
Licensed Business

1. On July 23, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 25, 2018, I met with the complainant to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC. The complainant advised me that he believed his non-DT beans had been damaged by an application made to a nearby DT soybean field.
3. During my on-site investigation I did the following:
 - a) Looked for and did not observe another potential dicamba application made in the area adjacent to the impacted site.
 - b) Observed and photographed what I believed to be dicamba exposure symptoms as well as some necrosis and necrotic spotting (figure 1) on the complainant's non-target, non-DT soybean field. The symptoms were heavier near the target field and gradually diminished to the north of the target field however, there were still some symptoms. (figures 2, 3, and 4) The target field and the complainant's non-target field were adjacent to one another. (figure 5).
 - c) Collected soybean plant samples from impacted areas of the complainant's non-target soybean field for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
 - d) Collected samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted soybean plants from complainant's non-target soybean field;
 - ii) Soil sample from target field
 - iii) Weed vegetation from the target field
 - e) Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks (figure 6).

4. On July 25, 2018, I collected written records from the applicator. The written records and statements addressed the below items as follows:
- Application date & time: June 29, 2018; from 7:35pm-8:40pm
 - Target field: soybean field to the south of complainant's soybean field;
 - Pesticides: Engenia (dicamba) EPA Reg. #7969-345; Abundit Extra Herbicide (glyphosate) EPA Reg. #71368-20
 - Application rate: 12.8 oz. per acre Engenia; 40 oz. per acre Abundit
 - Adjuvants: Clasp DRA;
 - Nozzles: Trident 5550
 - Boom height: 28 Inches
 - Ground speed: 6.2 mph
 - Winds: 7-8 mph toward the North Northeast;
 - Applicator: Garrett Meents;
 - Certified supervisor: not applicable;
 - Left a 110' untreated buffer next to non-target site: No
 - Checked registrant's web site before application: No
 - Checked Field Watch before application: No
 - Surveyed application site before application: Yes
5. I searched wind data from www.weatherunderground.com for zip code 47980 in Reynolds, IN for the reported dates and times of the application. The results of that search indicated that wind speeds and directions during the application were as follows:

June 29, 2018
As recorded at Jasper County 5-6 mph out of the south

7:35 PM	86 ° F	73 ° F	66 %	S	6 mph	0 mph
7:55 PM	84 ° F	73 ° F	70 %	S	5 mph	0 mph
8:15 PM	82 ° F	73 ° F	74 %	S	5 mph	0 mph
8:35 PM	82 ° F	73 ° F	74 %	S	5 mph	0 mph

Jasper County Wind Data 18 Miles Northeast

- The wind would have been blowing in the direction of the complainants beans.
- The report from the PPPDL states, *“Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.” “No fungal or bacterial disease and no insect/mite pests were observed to be associated with the symptoms of concern (foliar distortion).”*
- The report from the OISC Pesticide Residue Laboratory states:

Case #	2018/0833		Investigator	K. Neal			
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)				
			Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-22-1117	Soil sample target field	Soil	NA	NA	NA	NA	NA
2018-22-1118	Veg weeds target field	Vegetation	*412	68.7	73.5	4010	BQL
2018-22-1119	Veg soybeans Diener 10 yards in	Vegetation	15.2	0.434	BDL	5250	156
2018-22-1120	Veg soybeans Diener 50 yards in	Vegetation	5.53	BQL	BDL	34.1	BDL
2018-22-1121	Veg soybeans Diener 100 yards in	Vegetation	3.82	BQL	BDL	BDL	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC * result reported as minimum detected due to concentration exceeding calibration curve range							
LOQ (ppb)	Vegetation	0.2	0.2	2	25	125	
Signature				Date	09/16/18		



Figure One



Figure Two



Figure Three



Figure Four



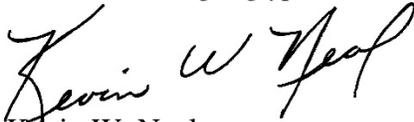
Figure Five



Figure Six

9. The OISC residue lab results, PPPDL report and the wind direction data suggest that dicamba from the application to the target field moved off-target to the complainant’s non-target soybean field. The data also suggests that the product moved at the time of application as there is a discernable pattern supported by the OISC residue lab results for both herbicides in the tank mix at the time of application. The wind direction data supports that the Engenia was applied when the wind was blowing toward the sensitive non-DT soybeans.
10. The label for Engenia states, “DO NOT apply when wind is blowing in the direction of neighboring sensitive crops.” The label also states, “The applicator must also consult sensitive crop registries to locate nearby sensitive areas where available. And “DO NOT tank mix any product with Engenia unless: You check the EPA list of approved products for use with Engenia at www.engeniatankmix.com no more than 7 days before applying Engenia.”

11. The label for Abundit Extra Herbicide states, “*The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from sensitive areas).*” And “*Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product may kill, seriously injure or reduce yields of many desirable forms of vegetation including flowers, fruits, grapes, tomatoes, ornamentals vegetables, cotton, soybeans, tobacco, beans and other desirable nontarget plants including, where applicable, target crop species not containing a glyphosate tolerant gene.*”



Kevin W. Neal
Investigator

Date: September 18, 2018

Disposition: Garrett Meents was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of a sensitive crop registry and the registrant’s website before application.

Garrett Meents was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with both the off-target drift restrictions and the drift management restrictions on the labels for the herbicide Engenia and Abundit Extra.



George N. Saxton
Compliance Officer

Draft Date: October 30, 2018

Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0840

Complainant: Rich Neukam
11611 Dale Road
Dale, Indiana 47523
812-457-4892

Respondent: Bernard Buening
Philip Ebelhar
Superior Ag Resources
418 N. Washington Street
Dale, Indiana 47523
812-686-2028

Certified Applicator
Registered Technician
Licensed Business

1. On July 24, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 30, 2018, I met with Rich Neukam at his soybean field located near the intersection of Dale Road and Deer Fly Lane in Dale, Indiana. Mr. Neukam stated on or around July 21, 2018, he noticed four of his non-DT soybean fields showing symptom of what he believed to be dicamba injury. All four fields were located in the same area (See Fig. 5). Mr. Neukam stated he believed the soybean field to the south of his south non-DT soybean field had a dicamba product applied to it.
3. During my on-site investigation I did the following:
 - a. Looked for, and found one potential source of a growth regulator type herbicide application in the area. The target field is located directly to the south of Mr. Neukam's south non-DT soybean field across a small grass strip (See Fig. 5).
 - b. Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybean plants across Mr. Neukam's soybean fields (See Fig. 1 and 2). Symptoms were visible throughout Mr. Neukam's soybean fields. Symptoms were notably more severe on the south end of Mr. Neukam's south field closet to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Neukam's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
 - d. Collected a composite soil sample from the target soybean field. Collected vegetation samples from Mr. Neukam's soybean fields (See Fig. 5). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

- Fig. 1 is Mr. Neukam's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is Mr. Neukam's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 3 is looking east at the property line between Mr. Neukam's south non-DT soybean field and the Superior Ag Resources field.
- Fig. 4 is looking southeast across Mr. Neukam's south non-DT soybean field in the direction of the Superior Ag Resources field.

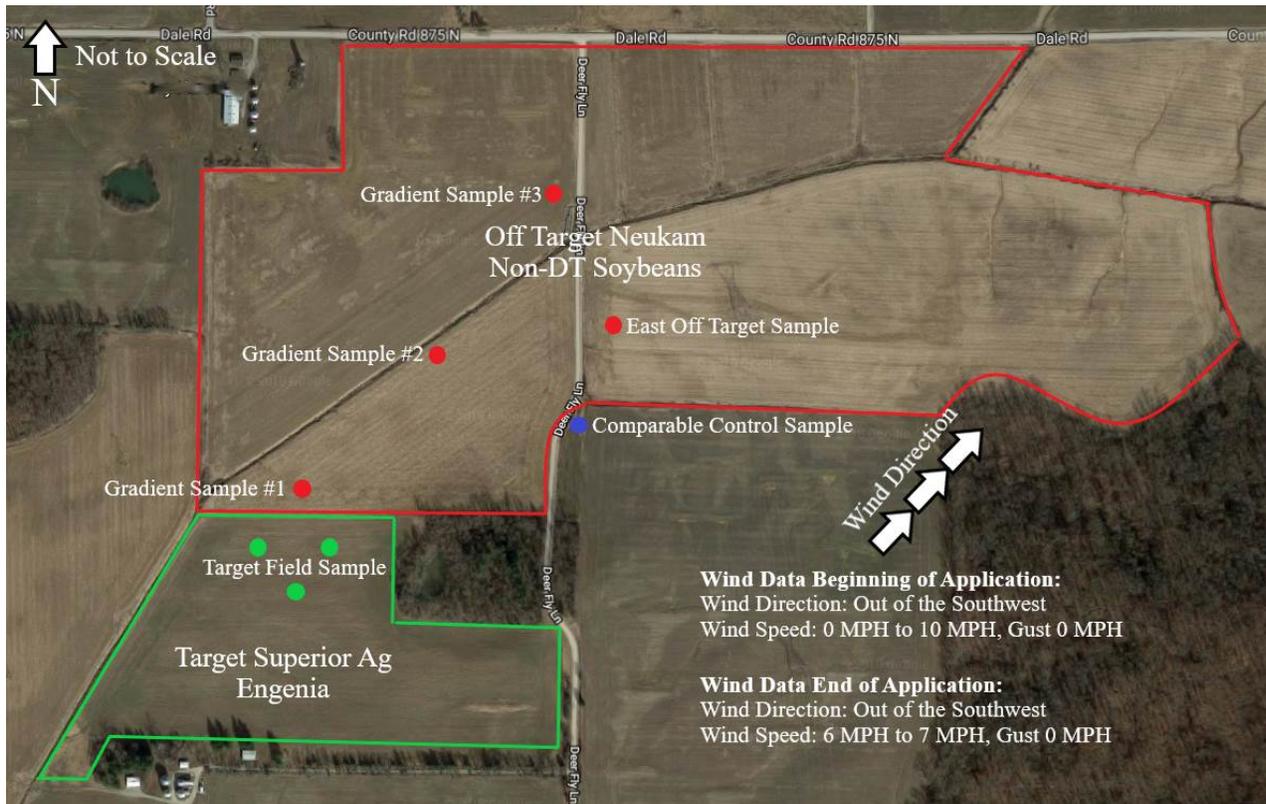


Fig. 5

- Fig. 5 is an aerial diagram of the fields including wind data, field property lines, and where soil and vegetation samples were taken from.
4. On July 31, 2018, I contacted the Branch Manager for Superior Ag Resources located in Dale, Indiana Bernard Buening. I advised Mr. Buening I was a Pesticide Investigator for OISC and the complaint against him. Mr. Buening stated he was familiar with the area and Superior Ag Resources made an application of Engenia to a soybean field to the south of Mr. Neukum's non- DT soybean field on July 9, 2018. I advised Mr. Buening I would be sending him via email a Pesticide Investigation Inquiry for him to complete and return to me.
 5. On August 3, 2018 I received a completed Pesticide Investigation Inquiry from Mr. Buening which indicated the following:
 - a. Certified Applicator: Bernard Buening
 - b. Registered Technician: Philip Ebelhar
 - c. Application Date and Time: July 9, 2018, 9:14am to 10:15am
 - d. Pesticide Applied: Engenia, EPA Reg. #7969-345 12.8oz/Acre
 Roundup Powermax, EPA Reg. #524-549, 1qt/Acre
 Zidua, EPA Reg. #7969-338, 1.5oz/Acre
 - e. Adjuvants: Class Act Ridion, On Target 16098
 - f. Target Field Location and Size: Breivogel Farms, 28.69 Acres
 - g. Pre- or Post- Emergent Application: Pre
 - h. Wind Direction at Boom Height: Start- NE, End- NE
 - i. Wind Speed at Boom Height: Start- 3.4mph, End- 4.7mph
 - j. Nozzle and Pressure: TeeJet TTI 1104, 45psi

- k. Boom Height: 24 inches
- l. Downwind Buffer: None.
- m. Checked Registrants Website before application: Yes, June 30, 2018
- n. Checked DriftWatch before application: Yes, June 30, 2018
- o. Dicamba Mandatory Training Attended: Both, Yes, January 25, 2018
#10597

6. Weather history data was obtained at www.wunderground.com from the three closest official weather station to the application site. The locations and weather data for July 9, 2018 follow:

- Huntingburg Regional Airport (KHNB) located in Holland, Indiana 9 miles to the north of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
7/9/2018	8:55 AM	73 F	CALM	0 MPH	0 MPH
7/9/2018	9:55 AM	79 F	SW	5 MPH	0 MPH
7/9/2018	10:55 AM	82 F	WSW	7 MPH	0 MPH

- Evansville Regional Airport (KEVV) located in Evansville, Indiana 26 miles to the west of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
7/9/2018	8:54 AM	81 F	SW	10 MPH	0 MPH
7/9/2018	9:54 AM	82 F	WSW	7 MPH	0 MPH
7/9/2018	10:54 AM	84 F	SSW	6 MPH	0 MPH

- Owensboro-Daviess County Regional Airport (KOWB) located in Owensboro, Kentucky 29 miles to the south of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
7/9/2018	8:56 AM	80 F	SW	9 MPH	0 MPH
7/9/2018	9:56 AM	83 F	SW	7 MPH	0 MPH
7/9/2018	10:56 AM	84 F	SW	6 MPH	0 MPH

7. The triangulated wind data from the Huntingburg Regional Airport (KHNB), Evansville Regional Airport (KEVV), and Owensboro-Daviess County Regional Airport (KOWB) indicate the wind speed during the application was between 0 mph and 10 mph with no gust out of the south or west.

8. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*

9. The OISC Residue Laboratory analyzed the soil and vegetation samples collected from the fields for pyroxasulfone and glyphosate, and reported the following:

Case #	2018/0840		Investigator	N. Davis	
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)		
			Pyroxasulfone	Glyphosate	AMPA
2018-39-9658	Comparable control composite veg grass from ditch	Vegetation	BDL	BDL	BDL
2018-39-9659	Target field composite soil	Soil	0.770	110	575
2018-39-9660	N off target gradient #1 veg soybean	Vegetation	BDL	BDL	BDL
2018-39-9661	N off target gradient #2 veg soybean	Vegetation	BDL	BDL	BDL
2018-39-9662	N off target gradient #3 veg soybean	Vegetation	BDL	BDL	BDL
2018-39-9663	E off target veg soybean	Vegetation	BDL	BDL	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC					
LOQ (ppb)	Vegetation		0.7	10	125
LOQ (ppb)	Soil		0.3	10	50
Signature			Date	10/05/18	

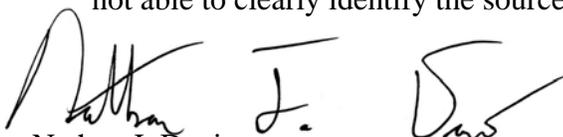
10. Pyroxasulfone and Glyphosate were below detection limits in the off target vegetation samples.

11. The triangulated wind data from the Huntingburg Regional Airport (KHNB), Evansville Regional Airport (KEVV), and Owensboro-Daviess County Regional Airport (KOWB) indicate the wind speed during the application was between 0 mph and 10 mph with no gust. The wind directions were all from the south or west and blowing towards Mr. Neukam's non-DT soybean fields. Since two locations showed legal application wind speeds, the benefit of the doubt was given to the applicator in regards to wind speed, especially since wind direction is usually more reliably corroborated or refuted by various weather data sources than wind speed. Wind speed data can vary significantly based on location and height of weather station.

12. The wind data indicates the wind directions were from the south and west blowing towards Mr. Neukam's non-DT soybean fields. The label for *Engenia*, EPA Reg. #7969-345, *Active Ingredient = dicamba* states, "**DO NOT apply when wind is blowing in the direction of a neighboring sensitive crop**".

13. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide *Engenia*,

EPA Reg. #7969-345, Active Ingredient = dicamba. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



Nathan J. Davis
Investigator

Date: October 11, 2018

Disposition: Bernard Buening and Philip Ebelhar were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$1,000.00 was assessed to Superior Ag Resources. Consideration was given to the fact this was Mr. Ebelhar's second violation and Mr. Buening's third violation of similar nature. See case numbers 2016/0861 and 2017/0667.



George N. Saxton
Compliance Officer

Draft Date: November 27, 2018

Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0845

Complainant: Willie Liter
8350 W. Highway 56
Lexington, Indiana 47138
502-649-6616

Respondent: Andrew Stephen
Agroflite LLC
5128 Forsyth Commerce Road
Orlando, Florida 32807
561-600-8885

Certified Applicator
Licensed Business

1. On July 24, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report aerial agricultural pesticide drift to his property and person. The complainant stated the helicopter was flying overhead while he was speaking to the Compliance Officer and it was 'very windy'. He also stated he has a shirt he will surrender for analysis with the understanding the shirt will not be returned to him.
2. On August 6, 2018, I met with Willie Liter. Mr. Liter provided me with the shirt he was wearing on the day of the application. Furthermore, Mr. Liter showed me where he was standing in his yard when exposed. I collected vegetation samples from the target cornfield and the area Mr. Liter stated he was standing. In addition, I took swab samples from the front and back windows of Mr. Liter's residence. See site diagram.



Site Diagram

- On August 6, 2018, I went to Crop Production Services (CPS) located at 71 S. SR-3, in Lexington, Indiana (47138). I obtained a copy of a work order (work order #465788-1279282) by Agroflite detailing the aerial application performed on 7/24/18 by Andrew Stephens.
- On August 6, 2018, I spoke with Darren Rothell, Director of Operations for Agroflite. I emailed a copy of the work order and a Pesticide Investigation Inquiry (PII) form to have Mr. Stephen complete and return. Mr. Rothell followed up with an email. See email.



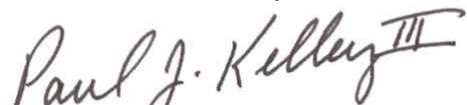
Yes sir,
 I will get this back to you asap!
 Thank you,

DARREN ROTHELL
 DIRECTOR OF OPERATIONS
 Main: 501.600.8885
 Direct: 501.333.0311
 Fax: 501.603.7899
[DARREN@AGROFLITE.COM](mailto:darren@agroflite.com)

- On September 13, 2018, OISC's Residue Lab reported the following:

Case # 2018/0845			Investigator: J. Kelley			
Sample #	Sample Description	Sample Matrix	Amount Found			
			Cyfluthrin	Benzovindiflupyr	Propiconazole	Azoxystrobin
2018-50-2140	Shirt from Mr. Liter	Clothing	Did not test	7000 ng/clothing	38700 ng/clothing	33700 ng/clothing
2018-50-2141	TB-trip blank swab	Swab	Did not test	BDL	BDL	BDL
2018-50-2142	SW1-swab from north side of house	Swab	Did not test	13.3 ng/swab	117 ng/swab	45.6 ng/swab
2018-50-2143	SW2-swab from south side of house	Swab	Did not test	16.6 ng/swab	114 ng/swab	58.0 ng/swab
2018-50-2144	CC-comparative control	Vegetation	Did not test	23.7 ppb	24.8 ppb	27 ppb
2018-50-2145	V1-vegetation from target field	Vegetation	Did not test	123 ppb	149 ppb	120 ppb
2018-50-2146	V2-vegetation from back yard near where Mr. Liter standing	Vegetation	Did not test	6.55 ppb	BDL	7.27 ppb
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC						
LOQ (ng/clothing)	Clothing	NA	8	16	8	
LOQ (ng/swab)	Swab	NA	0.2	0.4	0.2	
LOQ (ppb)	Vegetation	NA	0.7	3	3	
Signature			Date	09/13/18		

6. Label language for Trivapro A states in part, *“Do not apply this product in a way that will contact workers or other persons, either directly or through drift”*.
7. Based on the lab results of Trivapro A being found on all samples collected from Mr. Liter’s property, including the shirt Mr. Liter was wearing of the date of application, and the wind direction, off-target movement is likely.



Paul J. Kelley
Investigator

Date: October 16, 2018

Disposition: Andrew Stephen was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift to people. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact there was potential for human harm.

Andrew Stephen was cited for violation of section 65(7) of the Indiana Pesticide Use and Application Law for failure to make reports or supply information {Pesticide Investigation Inquiry (PII) form} when required or requested by the State Chemist in the course of an investigation. Mr. Stephen’s certification was indefinitely suspended until such time as he provided the required information. The PII was received by OISC Investigator Paul J. Kelley.



George N. Saxton
Compliance Officer

Draft Date: November 29, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0850

Complainant: Dale Worland
8101 N. Windmill Road
Bicknell, Indiana 47512
812-890-1696

Respondent: Douglas Stafford
Stafford Farms
720 S. Mt. Zion Road
Vincennes, Indiana 47591
812-887-5177

Certified Applicator
Licensed Business

1. On July 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 31, 2018, I met with the complainant Dale Worland at his non-DT soybean field located near the intersection of Rout Road and Loudermilk Road in Bicknell, Indiana. Mr. Worland stated he noticed his non-DT soybean field showing symptoms of dicamba injury. Further, Mr. Worland stated Stafford Farms who farm to the southwest and Ice Farms who farm to the southeast of his field may have applied dicamba products.
3. During my on-site investigation I did the following:
 - a. Looked for, and found two potential sources of a growth regulator type herbicide applications in the area. The target fields for this particular case are located to the southwest of Mr. Worland's non-DT soybean field and consist of three different fields with applications made on the same day by the same applicator with the same tank mix. (See Fig. 5). In regards to the other potential source of growth regulator type herbicide application located in the area reference case 2018/0936.
 - b. Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybean plants across Mr. Worland's soybean field (See Fig. 1 and 2). Symptoms were visible throughout Mr. Worland's soybean field. Symptoms were notably more severe on the southeast and southwest ends of Mr. Worland's field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Worland's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
 - d. Collected a composite soil sample from the target soybean field closest the Mr. Worland's soybean field. Collected vegetation samples from Mr. Worland's soybean field (See Fig. 5). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2



Fig. 3

- Fig. 1 is Mr. Worland's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is Mr. Worland's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 3 is looking northwest at the property line between the closet target field and Mr. Worland's non-DT soybean field. Mr. Worland's non-DT soybean field is on the right in the picture.

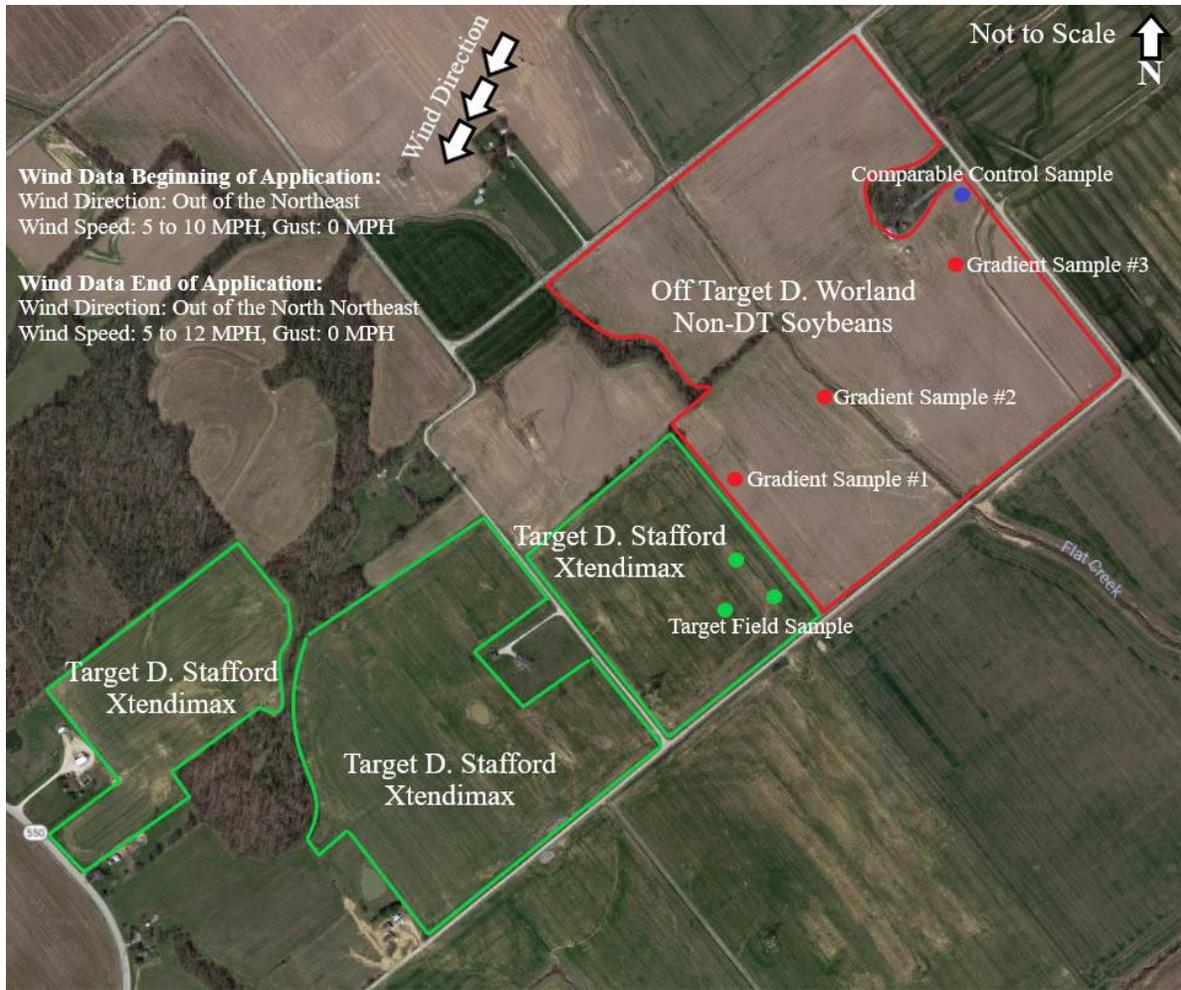


Fig. 5

- Fig. 5 is an aerial diagram of the fields including wind data, field property lines, and where soil and vegetation samples were taken from.
4. On August 6, 2018, I met with the respondent Douglas Stafford. I advised Mr. Stafford I was a Pesticide Investigator with OISC and the complaint against him. Mr. Stafford stated he made an application of Xtendimax to three fields to the southwest of Mr. Worland's field on July 17, 2018. Mr. Stafford advised all three fields were the same tank mix and done one right after the other. Further, Mr. Stafford stated he does not use the internet and he uses a weather app on his Direct TV to check weather data prior to making applications. I advised Mr. Stafford I would need him to complete a pesticide investigation inquiry form for the application to the three fields.
 5. On August 16, 2018 I received a completed Pesticide Investigation Inquiry from Mr. Stafford which indicated the following:
 - a. Certified Applicator: Douglas Stafford
 - b. Application Date and Time: July 17, 2018, 12:00pm to 6:00pm
 - c. Pesticide Applied:
Xtendimax, EPA Reg. #524-617, Active Ingredient=Dicamba, 22oz/Acre
RoundUp Powermax, EPA Reg. #524-549, Active Ingredient=Glyphosate, 40oz/Acre

- d. Adjuvants: Leeway
- e. Target Field Location and Size: Debs, 114 Acres
- f. Pre- or Post- Emergent Application: Post
- g. Wind Direction at Boom Height: Start- NNW, End- N
- h. Wind Speed at Boom Height: Start- 4 to 7mph, End- 4 to 7mph
- i. Nozzle and Pressure: Engenia 11004, 20 to 3psi
- j. Boom Height: 20 inches
- k. Downwind Buffer: Not Applicable
- l. Checked Registrants Website before application: Not Applicable
- m. Checked DriftWatch before application: No, I don't use internet
- n. Dicamba Mandatory Training Attended: Yes, January 25, 2018 #10597

6. Weather history data was obtained at www.wunderground.com from the three closest official weather station to the application site. The locations and weather data for July 17, 2018 follow:

- Lawrenceville-Vincennes International Airport (KLWV) located in Lawrenceville, Illinois 14 miles to the west of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
7/17/2018	11:53 AM	85 F	NE	10 MPH	0 MPH
7/17/2018	12:53 PM	87 F	ENE	7 MPH	0 MPH
7/17/2018	1:53 PM	88 F	N	8 MPH	0 MPH
7/17/2018	2:53 PM	88 F	N	10 MPH	0 MPH
7/17/2018	3:53 PM	89 F	N	9 MPH	0 MPH
7/17/2018	4:53 PM	89 F	NNE	9 MPH	0 MPH
7/17/2018	5:53 PM	88 F	NNW	10 MPH	0 MPH

- Evansville Regional Airport (KEVV) located in Evansville, Indiana 47 miles to the south of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
7/17/2018	11:54 AM	85 F	NE	8 MPH	0 MPH
7/17/2018	12:54 PM	87 F	NE	9 MPH	0 MPH
7/17/2018	1:54 PM	88 F	VAR	5 MPH	0 MPH
7/17/2018	2:54 PM	88 F	NNE	6 MPH	0 MPH
7/17/2018	3:54 PM	88 F	N	10 MPH	0 MPH
7/17/2018	4:54 PM	89 F	NNE	9 MPH	0 MPH
7/17/2018	5:54 PM	88 F	NNE	12 MPH	0 MPH

- Monroe County Airport (KBMG) located in Bloomington, Indiana 50 miles to the northeast of the application site:

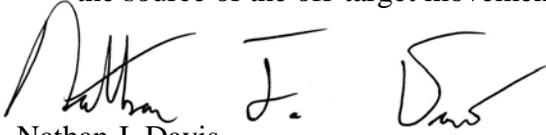
Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
7/17/2018	11:53 AM	83 F	NE	9 MPH	0 MPH
7/17/2018	12:53 PM	84 F	N	7 MPH	0 MPH
7/17/2018	1:53 PM	85 F	NE	6 MPH	0 MPH
7/17/2018	2:53 PM	87 F	N	10 MPH	0 MPH
7/17/2018	3:53 PM	87 F	N	8 MPH	0 MPH
7/17/2018	4:53 PM	87 F	NNE	8 MPH	0 MPH
7/17/2018	5:53 PM	85 F	VAR	5 MPH	0 MPH

- The triangulated wind data from the Lawrenceville-Vincennes International Airport (KLWV), Evansville Regional Airport (KEVV), and Monroe County Airport (KBMG) indicate the wind speed during the application was between 5 mph and 12 mph with no gust and wind direction was all out of the north and east.
- The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*
- The OISC Residue Laboratory analyzed the vegetation samples collected from the off target field and soil samples collected from the target fields for metolachlor. Metolachlor is the tank mix partner unique to the application in case 2018/0936 and reported the following:

Case #	2018/0850		Investigator	N. Davis		
Sample #	Sample Description	Amount of Analyte (ng/swab or ppb)				
		Matrix	Metolachlor	Dicamba	5-OH Dicamba	DCSA
2018-39-9669	Comparable control composite veg grass from field	Vegetation	BDL	Did not test	Did not test	Did not test
2018-39-9670	SE target field #1 ICE soil	Soil	26.3	Did not test	Did not test	Did not test
2018-39-9671	SW target field #2 Stafford soil	Soil	17.5	Did not test	Did not test	Did not test
2018-39-9672	Off target gradient #1 veg soybeans	Vegetation	BDL	Did not test	Did not test	Did not test
2018-39-9673	Off target gradient #2 veg soybeans	Vegetation	BDL	Did not test	Did not test	Did not test
2018-39-9674	Off target gradient #3 veg soybeans	Vegetation	BDL	Did not test	Did not test	Did not test
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC						
LOQ (ppb)	Soil		3	Did not test	Did not test	Did not test
LOQ (ppb)	Vegetation		3	Did not test	Did not test	Did not test
Signature				Date	10/26/18	

10. The OISC Residue Laboratory analysis detected metolachlor in both target fields. Metolachlor was below detection limits in the off target gradient vegetation samples.
11. On October 1, 2018, I contacted the respondent Mr. Stafford in regards to if he applied any pesticides containing the active ingredient metolachlor and failed to document them on the pesticide investigation inquiry form he completed for the application. Mr. Stafford stated no he did not apply any pesticides containing the active ingredient metolachlor.
12. On November 29, 2018, I contacted the respondent Mr. Stafford in regards to if he used the downwind buffer required for applications of *Xtendimax*, EPA Reg.# 524-617, Active Ingredient=*Dicamba*. Mr. Stafford stated on the field that had woods downwind he took the buffer out of his field and his two other fields had his cornfields downwind and he used those as the buffer.
13. The triangulated wind data from the Lawrenceville-Vincennes International Airport (KLWV), Evansville Regional Airport (KEVV), and Monroe County Airport (KBMG) indicate the wind speed during the application was between 5 mph (legal application) and 12 mph with no gust. The wind directions were all out of the north or east blowing away from the complainant's field. Since two locations showed winds 10 mph or below, the benefit of the doubt was given to the applicator, especially since wind direction is usually more reliably corroborated or refuted by various weather data sources than wind speed. Wind speed data can vary significantly based on location and height of weather station.
14. According to the application records, Mr. Stafford failed to check the registrant website for tank mix partners. The label for *Xtendimax*, EPA Reg. #524-617, Active Ingredient=*Dicamba* states: **"The applicator must check the list of tested products found not to adversely affect the offsite movement potential of XtendiMax With VaporGrip Technology at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax With VaporGrip Technology"**.
15. According to the application records, Mr. Stafford failed to check DriftWatch for nearby sensitive sites/crops. The label for *Xtendimax*, EPA Reg. #524-617, Active Ingredient=*Dicamba* states: **"Susceptible Crops Awareness: Record that a sensitive crop registry was consulted; or document surveying neighboring fields for any susceptible crops prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted or the survey of neighboring fields and the date conducted"**.
16. According to the application records Mr. Stafford's tank mix included *RoundUp Powermax*, EPA Reg. #524-549, Active Ingredient=*Glyphosate* at a rate of 40oz to the acre. The label for *Xtendimax*, EPA Reg. #524-617, Active Ingredient=*Dicamba* states: **"DO NOT mix any product with XtendiMax With VaporGrip unless: All Requirements and restrictions on www.xtendimaxapplicationrequirements.com are followed"**. On www.xtendimaxapplicationrequirements.com it states: **"Glyphosate products limited to a maximum use rate of 32 fl oz per acre for each application when tank-mixed with XtendiMax With VaporGrip Technology"**.
17. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide *Xtendimax*, EPA Reg.

#524-617, Active Ingredient=Dicamba. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



Nathan J. Davis
Investigator

Date: November 29, 2018

Disposition: Douglas Stafford was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of appropriate websites.

Douglas Stafford was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding tank mix rates of Roundup Powermax. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: December 13, 2018
Final Date: February 4, 2019

CASE SUMMARY

Case #2018/0852

Complainant: John Hamilton
8856 N. Base Line Road
Worthington, Indiana 47471
812-381-4751

Respondent: Michael Walker Private Applicator
S&C Cornelius Farms
3169 North 600 West
Switz City, Indiana 47465
812-384-6173

1. On July 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 31, 2018, I met with the complainant John Hamilton at his non-DT soybean field located near the intersection of County Road 225 W. and County Road 325 N. in Worthington, Indiana. Mr. Hamilton stated on or around July 24, 2018, he noticed his non-DT soybean field showing symptoms of dicamba injury. Further, Mr. Hamilton stated he had 4 to 5 acres of cyst nematodes in the soybean field confirmed through laboratory testing.
3. During my on-site investigation I did the following:
 - a. Looked for, and found one potential source of a growth regulator type herbicide application in the area. The target field is located directly to the west of Mr. Hamilton's non-DT soybean field across a small grass lane and fencerow (See Fig. 5).
 - b. Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybean plants across Mr. Hamilton's soybean field (See Fig. 1 and 2). Symptoms were visible throughout Mr. Hamilton's soybean field. Symptoms were notably more severe on the west end of Mr. Hamilton's field closet to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Hamilton's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
 - d. Collected a composite soil sample from the target soybean field. Collected vegetation samples from Mr. Hamilton's soybean field (See Fig. 5). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

- Fig. 1 is Mr. Hamilton's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is Mr. Hamilton's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 3 is looking northeast across Mr. Hamilton's non-DT soybean field.
- Fig. 4 is looking north at the grass lane and fencerow that separates the two fields. Mr. Hamilton's non-DT soybean field is on the right in the picture.

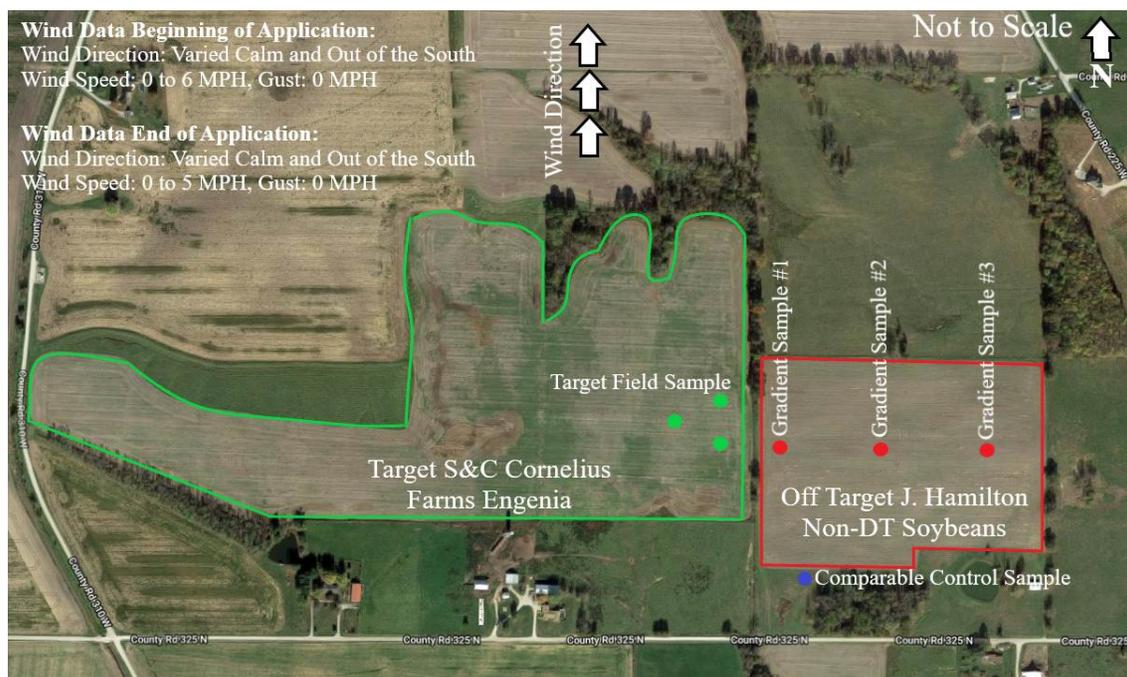


Fig. 5

- Fig. 5 is an aerial diagram of the fields including wind data, field property lines, and where soil and vegetation samples were taken from.
4. On July 31, 2018, while conducting my on-site investigation at Mr. Hamilton's field the farmer of the target field Chris Cornelius arrived at the field. I advised Mr. Cornelius I was a Pesticide Investigator with OISC and the complaint against him. Mr. Cornelius stated he had met with Mr. Hamilton previously on July 26, 2018, about Mr. Hamilton's concern of possible dicamba drift from his field. Mr. Cornelius stated his applicator applied Engenia to the target field on June 28, 2018. Further, Mr. Cornelius stated he did not believe it would take a month for the dicamba injury to show up in Mr. Hamilton's non-DT soybean field if the injury was from his application. I advised Mr. Cornelius I would be sending him a pesticide investigation inquiry via email for the applicator to complete and return to me.
 5. On August 1, 2018 I received a completed Pesticide Investigation Inquiry from Mr. Cornelius which indicated the following:
 - a. Private Applicator: Michael Walker
 - b. Application Date and Time: June 28, 2018, 1:47pm to 2:33pm
 - c. Pesticide Applied:
Engenia, EPA Reg. #7969-345, Active Ingredient=Dicamba, 12.8oz/Acre
Intensity, EPA Reg. #34704-864, Active Ingredient=Clethodium, 5oz/Acre
RoundUp Powermax, EPA Reg. #524-549, Active Ingredient=Glyphosate, 22oz/Acre
 - d. Adjuvants: Choice Trio and Reign
 - e. Target Field Location and Size: 1.5 Mile South of Worthington, 65 Acres
 - f. Pre- or Post- Emergent Application: Post
 - g. Wind Direction at Boom Height: Start- WSW, End- WSW
 - h. Wind Speed at Boom Height: Start- 2mph, End- 7mph
 - i. Nozzle and Pressure: TeeJet TTI 06
 - j. Boom Height: 18-20 inches
 - k. Downwind Buffer: 150 Feet

- l. Checked Registrants Website before application: Yes, June 21, 2018
- m. Checked DriftWatch before application: Yes, June 21, 2018
- n. Dicamba Mandatory Training Attended: Yes, February 4, 2018 #18840019

6. Weather history data was obtained at www.wunderground.com from the three closest official weather station to the application site. The locations and weather data for June 28, 2018 follow:

- Monroe County Airport (KBMG) located in Bloomington, Indiana 21 miles to the west of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/4/2018	1:53 PM	84 F	S	6 MPH	0 MPH
6/4/2018	2:53 PM	85 F	CALM	0 MPH	0 MPH

- Terre Haute Regional Airport (KHUF) located in Terre Haute, Indiana 31 miles to the northeast of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/4/2018	1:53 PM	84 F	CALM	0 MPH	0 MPH
6/4/2018	2:53 PM	86 F	S	5 MPH	0 MPH

- Lawrenceville-Vincennes International Airport (KLWV) located in Lawrenceville, Illinois 39 miles to the southeast of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/4/2018	1:53 PM	87 F	CALM	0 MPH	0 MPH
6/4/2018	2:53 PM	88 F	VAR	5 MPH	0 MPH

7. The triangulated wind data from the Monroe County Airport (KBMG), Lawrenceville-Vincennes International Airport (KLWV) indicate the wind speed during the application was between 0 mph and 6 mph with no gust and wind direction varied from calm and out of the south.

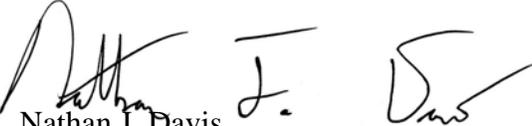
8. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*

9. The OISC Residue Laboratory analyzed the vegetation samples collected from the fields for glyphosate, dicamba, its breakdown products DCSA and 5-OH dicamba, and reported the following:

Case #	2018/0852		Investigator				N. Davis
Sample #	Sample Description	Matrix	Amount of Analyte (ppb)				
			Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2018-39-9664	Comparative Control Composite Veg (Grass)	Vegetation	3.08	BDL	BDL	BDL	BDL
2018-39-9665	Target Field Composite Soil	Soil	Did not test	Did not test	Did not test	33.9	200

2018-39-9666	Off Target Gradient #1 Veg (Soybeans)	Vegetation	0.791	0.368	BDL	BDL	BDL
2018-39-9667	Off Target Gradient #2 Veg (Soybeans)	Vegetation	0.252	BQL	BDL	BDL	BDL
2018-39-9668	Off Target Gradient #3 Veg (Soybeans)	Vegetation	BQL	BQL	BDL	BDL	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC							
LOQ (ppb)	Soil		Did not test	Did not test	Did not test	10	50
LOQ (ppb)	Vegetation		0.2	0.2	2	5	125
Signature						Date	11/16/18

10. The OISC Residue Laboratory analysis detected dicamba in two of the off target gradient vegetation samples from Mr. Hamilton’s non-DT soybean field. Glyphosate was below detection limits in Mr. Hamilton’s non-DT soybean field.
11. On November 28, 2018 I contacted the respondent Mr. Cornelius in regards to if the wind direction he wrote down on his pesticide investigation inquiry was in terms of the wind was out of that direction or the wind was blowing that direction. Mr. Cornelius stated the wind direction he wrote down was the direction the wind was blowing during the application.
12. According to the application records and triangulated wind data, wind speed during the application were below 3mph. The label for *Engenia*, EPA Reg. #7969-345, Active Ingredient=*Dicamba* states: “**Wind Speed and Direction Requirements: Wind Speed 3 to 10 mph**”.
13. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide *Engenia*, EPA Reg. #7969-345, Active Ingredient = *dicamba*. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.


Nathan J. Davis
Investigator

Date: November 28, 2018

Disposition: Michael Walker was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.


George N. Saxton
Compliance Officer

Draft Date: December 13, 2018
Final Date: February 4, 2019

CASE SUMMARY

Case #2018/0858

Complainant: Kurt Theurer
6285 E 700 S
Portland, Indiana 47371
260-740-7472

Respondent: Richard L. Fisher
6007 N 300 E
Winchester, IN 47394
765-749-8762
Private Applicator

1. On July 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 26, 2018, I made contact with the complainant Kurt Theurer via telephone. He explained to me that he has two fields at the intersection of W 1000 N and S 100 W. One field is on the North West corner in Jay County, the second field is on the southwest corner in Randolph County. Mr. Theurer stated that the field on the northeast corner of the intersection is his cornfield. He explained that he believes the injury came from the field located on the southeast corner. Mr. Theurer stated that it is a soybean field and that the adjacent field directly east of that field is also showing symptoms of dicamba damage. Mr. Theurer stated that Ray Swingley farms that field. I informed Mr. Theurer that I have received a case involving that field with Mr. Swingley as the complainant (reference case 2018/0859). Mr. Theurer stated that he would contact Mr. Swingley and we could all meet.
3. On August 1, 2018, I met with Mr. Theurer and Mr. Swingley at the affected fields and they were able to show me the impacted areas of the fields.
4. During my on-site investigation I did the following:
 - a. Looked for, but did not find, any other potential sources of a growth regulator type herbicide application adjacent to Mr. Theurer's soybean fields. The target field was on the southeast corner of S 100 W and W 1000 N with the roadways separating the fields.
 - b. Observed and photographed a gradient pattern of cupping and puckering of leaves on non-DT soybean plants across Mr. Theurer's soybean field from east to west and northwest (See Fig 1). Symptoms were notably more severe on the east end of the field closet to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Theurer's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL).

- d. Collected composite soil sample from the target soybean field. Collected gradient vegetation and soil samples from Mr. Theurer's soybean field (See Fig. 3). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2

- Fig. 1) Mr. Theurer's non-DT soybeans with cupped/puckered leaves and discolored leaf tips from Northwest field.
- Fig. 2) Mr. Theurer's non-DT soybeans with cupped/puckered leaves and discolored leaf tips from west field.

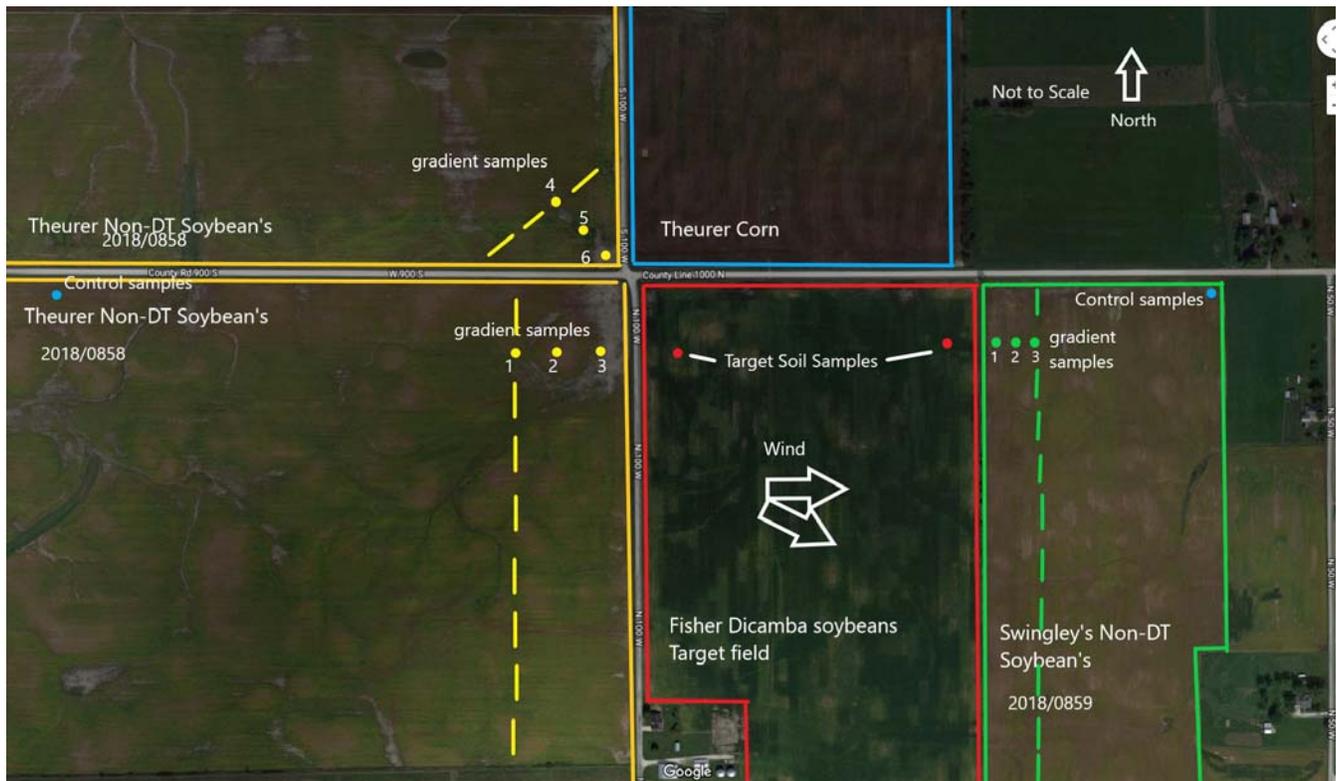


Fig. 3)

- Fig. 3) is an aerial diagram of the fields including approximate field property lines and where soil and vegetation samples were taken from.

5. While at the fields collecting samples and individual, identified as Clayton Reinhart, arrived to ask what I was doing. I informed him that I was with OISC and was investigating a dicamba complaint. I asked if he knew who farmed the target field and he stated that his family farms the field. He informed me that his stepfather Richard Fisher makes pesticide applications to the target field and that dicamba was applied to the field onto dicamba tolerant soybeans. I provided him with a pesticide investigation inquiry (PII) to give to Mr. Fisher. I also provided him with my contact information and instructed him to have Mr. Fisher return the PII to me within 15 days.

6. Mr. Fisher Completed the PII on August 13, 2018 and indicated the following:
 - a. Certified Applicator: Richard L. Fisher
 - b. Application Date and Time: June 21-26, 2018, 11:30am to 2:00pm
 - c. Pesticide Applied:
 - i. Mad Dog Plus, EPA Reg. #34704-890, Glyphosate 32oz/acre
 - ii. Xtendimax, EPA Reg. #524-617, Dicamba, 22oz/Acre
 - iii. Clethodim, EPA Reg. #42750-72, Clethodim
 - d. Adjuvants: Reign, strike force
 - e. Target Field Location and Size: 5T21NR14E
 - f. Pre- or Post- Emergent Application: Post
 - g. Wind Direction at Boom Height: Start- W/NW, End- W/NW
 - h. Wind Speed at Boom Height: Start- 4-7mph, End- 4-7mph
 - i. Nozzles: TeeJet TT 11003VP-40Psi
 - j. Boom Height: 22-24 Inches
 - k. Downwind Buffer: No
 - l. Checked Registrants Website before application: No
 - m. Checked DriftWatch before application: No
 - n. Dicamba Mandatory Training Attended: Yes, April 23, 2018

7. After reviewing the PII, I contacted Mr. Fisher via telephone about the application date. I asked Mr. Fisher how many different pesticide applications were made to the field as he had indicated that he applied from June 21-26. He stated that only one application was made to the target field but that he could not remember the exact date the application was made. Mr. Fisher stated that he wrote it down on a notebook, but the notebook was accidentally put in the washer and the information was lost. Mr. Fisher stated that one of his employees normally writes down daily activities and that he would get the information from him and get back to me. Mr. Fisher later contacted me and informed me that the pesticide application made to the target field was on June 24, 2018.

8. Weather history data was obtained at www.wunderground.com and the closet official weather station to the application site was the Delaware County-Johnson Station (KMIE) located in Muncie, Indiana 21 miles west southwest of the application site. The weather data for June 24, 2018 follows:

Time	Temperature	Wind	Wind Speed	Gusts
11:38 AM	79 F	NW	8 mph	0 mph
11:53 AM	79 F	W	7 mph	0 mph
12:53 PM	81 F	NNW	8 mph	0 mph
1:53 PM	82 F	WNW	6 mph	0 mph

9. The weather data shows that the wind was not blowing towards Mr. Theurer's non-DT soybean field.
10. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*
11. According to Mr. Fisher's statements on the Pesticide Investigation inquiry indicate that Mr. Fisher tank mixed an unapproved product with Xtendimax. Mad Dog Plus EPA Reg. #34704-890, is not an approved tank mix partner for Xtendimax. The Xtendimax label states **"DO NOT tank mix any product with Xtendimax with VaporGrip Technology unless: The intended tank-mix product is identified on the list of tested products;"** Mr. Fisher also did not check the registrant's website prior to the pesticide application. The Xtendimax label states **"The applicator must check the list of tested products found not to adversely affect the offsite movement potential of XtendiMax with VaporGrip Technology at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax with VaporGrip Technology."** Mr. Fisher also did not check DriftWatch prior to the pesticide application. The Xtendimax label states, **"Before making an application, the applicator must survey the application site for adjacent non-target susceptible crops. The applicator must also consult applicable sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site."**
12. Based on the evidence collected in this investigation, it has been determined that Richard L. Fisher failed to comply with the tank mix restrictions and drift management restrictions on the label for the herbicide *Xtendimax*, EPA Reg. #524-617, Active Ingredient = *dicamba*. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



Garret A. Creason
Investigator

Date: December 5, 2018

Disposition: Richard L. Fisher was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: January 14, 2019
Final Date: February 20, 2019

CASE SUMMARY

Case #2018/0859

Complainant: Ray Swingley
1024 W 700 S
Portland, Indiana 47371
260-726-9456

Respondent: Richard L. Fisher
6007 N 300 E
Winchester, IN 47394
765-749-8762

Private Applicator

1. On July 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 26, 2018, I attempted to contact the complainant, Ray Swingley, via telephone but was unable to reach him. I then contacted Kurt Theurer in reference to case 2018/0858 and he informed me that his field along with Mr. Swingley's field were both affected by the same target field. Mr. Theurer stated that he knows Mr. Swingley and will contact him and have him meet with us to show me the affected field.
3. On August 1, 2018, I met with Mr. Theurer and Mr. Swingley at the affected fields and they were able to show me the impacted areas of the fields. Mr. Swingley's affected field was located on W 1000 N in Randolph County. The field is approximately ¼ mile east of S 100 W on the south side of 1000 N. The target field is adjacent directly to the west of the off-target field.
4. During my on-site investigation I did the following:
 - a. Looked for, but did not find, any other potential sources of a growth regulator type herbicide application adjacent to Mr. Swingley's soybean field. The target field was on the southeast corner of S 100 W and W 1000 N with a small vegetative strip separating the fields. The injury to the non-DT soybeans in Mr. Swingley's field extended from the west side of the field to the east approximately 20 rows wide for the entire length of the west side of the field.
 - b. Observed and photographed a gradient pattern of cupping and puckering of leaves on non-DT soybean plants across Mr. Swingley's soybean field from west to east (See Fig 1). Symptoms were notably more severe on the west end of the field closet to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Swingley's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL).

- d. Collected composite soil sample from the target soybean field. Collected gradient vegetation and soil samples from Mr. Swingley's soybean field (See Fig. 3). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2

- Fig. 1) Mr. Swingley's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2) showing the vegetative strip separating Mr. Swingley's field and Target field. Photo is facing south with Target field on the right and Mr. Swingley's field to the left.



Fig. 3)

- Fig. 3) is an aerial diagram of the fields including approximate field property lines and where soil and vegetation samples were taken from.

5. While at the fields collecting samples and individual, identified as Clayton Reinhart, arrived to ask what I was doing. I informed him that I was with OISC and was investigating a dicamba complaint. I asked if he knew who farmed the target field and he stated that his family farms the field. He informed me that his stepfather Richard Fisher makes pesticide applications to the target field and that dicamba was applied to the field onto dicamba tolerant soybeans. I provided him with a pesticide investigation inquiry (PII) to give to Mr. Fisher. I also provided him with my contact information and instructed him to have Mr. Fisher return the PII to me within 15 days.

6. Mr. Fisher Completed the PII on August 13, 2018 and indicated the following:
 - a. Certified Applicator: Richard L. Fisher
 - b. Application Date and Time: June 21-26, 2018, 11:30am to 2:00pm
 - c. Pesticide Applied:
 - i. Mad Dog Plus, EPA Reg. #34704-890, Glyphosate 32oz/acre
 - ii. Xtendimax, EPA Reg. #524-617, Dicamba, 22oz/Acre
 - iii. Clethodim, EPA Reg. #42750-72, Clethodim
 - d. Adjuvants: Reign, strike force
 - e. Target Field Location and Size: 5T21NR14E
 - f. Pre- or Post- Emergent Application: Post
 - g. Wind Direction at Boom Height: Start- W/NW, End- W/NW
 - h. Wind Speed at Boom Height: Start- 4-7mph, End- 4-7mph
 - i. Nozzles: TeeJet TT 11003VP-40Psi
 - j. Boom Height: 22-24 Inches
 - k. Downwind Buffer: No
 - l. Checked Registrants Website before application: No
 - m. Checked DriftWatch before application: No
 - n. Dicamba Mandatory Training Attended: Yes, April 23, 2018

7. After reviewing the PII, I contacted Mr. Fisher via telephone about the application date. I asked Mr. Fisher how many different pesticide applications were made to the field as he had indicated that he applied from June 21-26. He stated that only one application was made to the target field but that he could not remember the exact date the application was made. Mr. Fisher stated that he wrote it down on a notebook, but the notebook was accidentally put in the washer and the information was lost. Mr. Fisher stated that one of his employees normally writes down daily activities and that he would get the information from him and get back to me. Mr. Fisher later contacted me and informed me that the pesticide application made to the target field was on June 24, 2018.

8. Weather history data was obtained at www.wunderground.com and the closet official weather station to the application site was the Delaware County-Johnson Station (KMIE) located in Muncie, Indiana 21 miles west southwest of the application site. The weather data for June 24, 2018 follows:

Time	Temperature	Wind	Wind Speed	Gusts
11:38 AM	79 F	NW	8 mph	0 mph
11:53 AM	79 F	W	7 mph	0 mph
12:53 PM	81 F	NNW	8 mph	0 mph
1:53 PM	82 F	WNW	6 mph	0 mph

9. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*

10. According to Mr. Fisher's statements on the Pesticide Investigation inquiry, Mr. Fisher tank mixed an unapproved product with Xtendimax. Mad Dog Plus EPA Reg. #34704-890, is not an approved tank mix partner for Xtendimax. The Xtendimax label, EPA Reg. #524-617 states **"DO NOT tank mix any product with Xtendimax with VaporGrip Technology unless: The intended tank-mix product is identified on the list of tested products;"** The wind data along with Mr. Fishers statements on the PII indicate the wind was blowing towards Mr. Swingley's field during the application. The label for Xtendimax states, **"DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON."** **"Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result."** Mr. Fisher also did not check the registrant's website prior to the pesticide application. The Xtendimax label states **"The applicator must check the list of tested products found not to adversely affect the offsite movement potential of XtendiMax with VaporGrip Technology at**

www.xtendimaxapplicationrequirements.com

no more than 7 days before applying XtendiMax with VaporGrip Technology." Mr. Fisher also did not check DriftWatch prior to the pesticide application. The Xtendimax label states, **"Before making an application, the applicator must survey the application site for adjacent non-target susceptible crops. The applicator must also consult applicable sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site."**

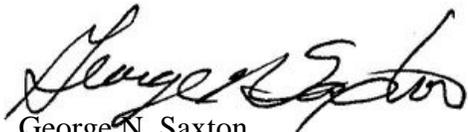
11. Based on the evidence collected in this investigation, it has been determined that Richard L. Fisher failed to comply with the tank mix restrictions and drift management restrictions on the label for the herbicide *Xtendimax*, EPA Reg. #524-617, Active Ingredient = *dicamba*. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



Garret A. Creason
Investigator

Date: December 5, 2018

Disposition: Richard L. Fisher was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: January 14, 2019
Final Date: February 20, 2019

CASE SUMMARY

Case #2018/0880

Complainant: David Jolly
1013 W 500 S
Versailles, Indiana 47042
812-621-1319

Respondent: Kevin Wood
Tim Wood
3550 S. SR 129
Versailles, Indiana 47042
812-689-3037

Private Applicator
Non- Credentialed Applicator

1. On July 23, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On August 2, 2018, I went to David Jolly's field located east of East County Road 300 East in Versailles, Indiana. See site diagram. I observed cupped and crinkled leaves on the northwest corner of Mr. Jolly's non-DT soybean field. See figure 1. I collected a vegetation sample to be visually analyzed by Purdue's Pest and Plant Diagnostic Lab (PPDL). Furthermore, I collected investigative samples; however, these sample where not analyzed due to Mr. Werner's admission of a label violation on the completed Pesticide Investigation Inquiry (PII) form.



Site Diagram



Figure 1-Cupped and crinkled leaves

3. On August 3, 2018, I received the following from PPDL:

Diagnosis and Recommendations

Host/Habitat	Soybean (Glycine max)
List of Diagnosis/ID(s)	
Suspected for Herbicide injury; Exposure (Abiotic disorder)	

Final Report

8-5-18

Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.

Joe Ikley
 Weed Science Program Specialist
 Purdue University
 e-mail - jikley@purdue.edu
 Office - (765) 496-2121

8-5-18

No fungal or bacterial disease and no insect/mite pests were observed to be associated with the symptoms of concern (foliar distortion).

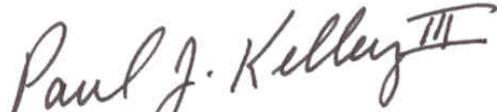
Gail Ruhl
 Plant Disease Diagnostician

4. On August 9, 2018, I received a completed Pesticide Investigation Inquiry (PII) form from Tim Wood. Mr. Wood documented he made an application on June 20, 2018, using Xtendimax (EPA Reg. #524-617, active ingredient dicamba) and Roundup Powermax (EPA Reg. #524-549, active ingredient glyphosate). Mr. Wood documented the wind was 12 mph out of the southwest blowing toward Mr. Jolly’s non-DT soybean field. Furthermore, Mr. Wood did not check the manufacture’s website listed on the label.
5. Label language for Xtendimax states in part, *“DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON.”*

“Do not apply when wind speeds are less than 3 MPH or greater than 10 MPH.”

“The applicator must check the list of tested products found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology at

*www.xtendimaxapplicationrequirements.com no more than 7 days before applying
XtendiMax® With VaporGrip® Technology.”*



Paul J. Kelley
Investigator

Date: October 30, 2018

Disposition: Kevin Wood was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: December 11, 2018

Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0881

Complainant: Michael Williamson
2366 N. SR 19
Etna Green, Indiana 46524
574-527-7992

Respondent: Mike Long
2814 N. 800 W.
Warsaw, Indiana 46582
574-527-6095

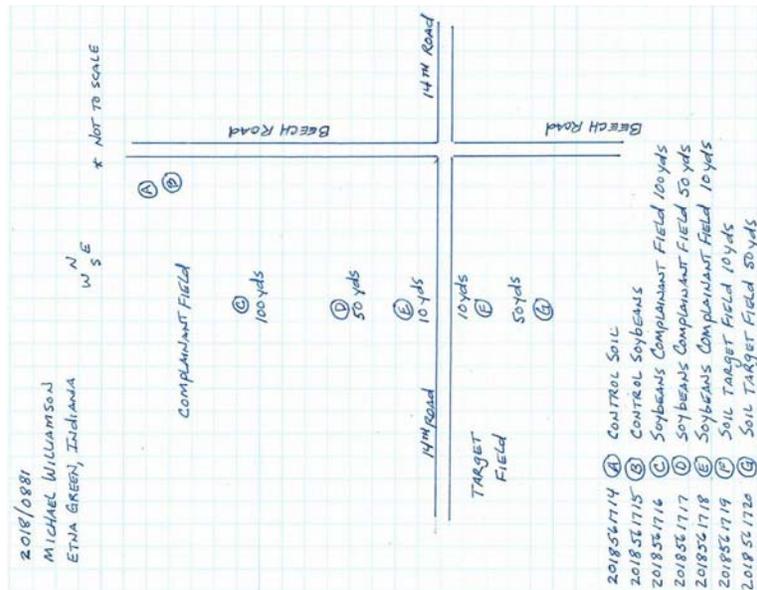
Private Applicator

1. On August 2, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On August 7, 2018, I made contact with the complainant Michael Williamson. Mr. Williamson reiterated he believed his non-dicamba tolerant (DT) beans had been impacted by an application of dicamba to the field south of the complainant's field.
3. I checked the complainant's field. I did observe soybean plants exhibiting pesticide exposure symptoms of cupping/puckering. It also appeared to be uniformly impacted across the majority of the complainant's field. I obtained some soybean plants from the complainant's field for submission to the Purdue Plant and Pest Diagnostic Lab (PPPDL) for analysis. (See photos below)



4. I placed the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis:
 - 2018561714 Control soil
 - 2018561715 Control soybeans
 - 2018561716 Soybeans complainant field 100 yds.
 - 2018561717 Soybeans complainant field 50 yds.
 - 2018561718 Soybeans complainant field 10 yds.
 - 2018561719 Soil target field 10 yds.
 - 2018561720 Soil target field 50 yds.

(See diagram below)



5. I learned Mike Long made a pesticide application to the field south of the complainant's field. I made contact with Mr. Long. He agreed to submit a completed Pesticide Investigation Inquiry (PII) for his application.
6. I received the following information from PPPDL: "*Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba*".
7. I received a completed PII from Michael Long. According to the PII, Mr. Long made a pesticide application of **Fexapan** (EPA# 352-913; active ingredient: dicamba) and **Roundup Power Max** (EPA #524-549; active ingredient: glycine) on June 26, 2018 between 9:10am and 11:05am. He recorded the wind blowing at 5 to 9 miles per hour in a west-northwesterly direction diagonally across the complainant's field (See diagram above). In further review of the PII, I found Mr. Long completed all of the record keeping requirements of the **Fexapan** label.
8. The label for Fexapan reads in part, "**DO NOT APPLY** this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes **NON-Dicamba Tolerant Soybean and Cotton**"
9. After reviewing all available information, Mr. Long is in violation of the **Fexapan** label when he applied it while the wind was blowing toward the complainant's field (as recorded by Mr. Long on the PII and confirmed at www.wunderground.com). Therefore, residue analysis was not required.

Kevin W. Gibson

Kevin W. Gibson
Pesticide Investigator

Date: November 26, 2018

Disposition: Mike Long was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

George N. Saxton

George N. Saxton
Compliance Officer

Draft Date: December 13, 2018
Final Date: February 4, 2019

CASE SUMMARY

Case #2018/0912

Complainant: Rebecca Gallagher
10634 E. Lake Edward Drive
Huntingburg, Indiana 47542
812-536-3628

Respondent: Gregory D. Borden Certified Applicator
Greg J. Begle Registered Technician
Austin G. Begle Unlicensed
Turf Pro Lawn Service Licensed Business
3697 West 500 North
Jasper, Indiana 47547
812-482-9770

1. On August 13, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report Turf Pro allegedly applied Daconil Weather Stik to her lawn, a pesticide product not allowed for residential use.
2. On August 16, 2018, I met with complainant Rebecca Gallagher at her residence located in Huntingburg, Indiana. Mrs. Gallagher stated on May 29, 2018, she requested her lawn care provider Turf Pro Lawn Service make an application of fungicide to her lawn. Mrs. Gallagher stated Turf Pro Lawn Service made the application on June 13, 2018. Mrs. Gallagher stated Turf Pro Lawn Service left an invoice behind that stated the product applied was “Daconil Weatherstik Fungicide” (See Fig. 1). Mrs. Gallagher stated she researched the fungicide Daconil Weatherstik and it was not labeled for residential use. Mrs. Gallagher stated she saved all the email conversations between herself and the owner of Turf Pro Services Greg Begle. I had Mrs. Gallagher email me copies of the conversations along with the Turf Pro Service invoice. Those documents are included in this case file.
3. During my on-site investigation I did the following:
 - a. Documented the area with photographs.
 - b. Took a composite soil sample from Mrs. Gallagher’s lawn. The residue samples were submitted to the OISC Residue Laboratory for analysis.

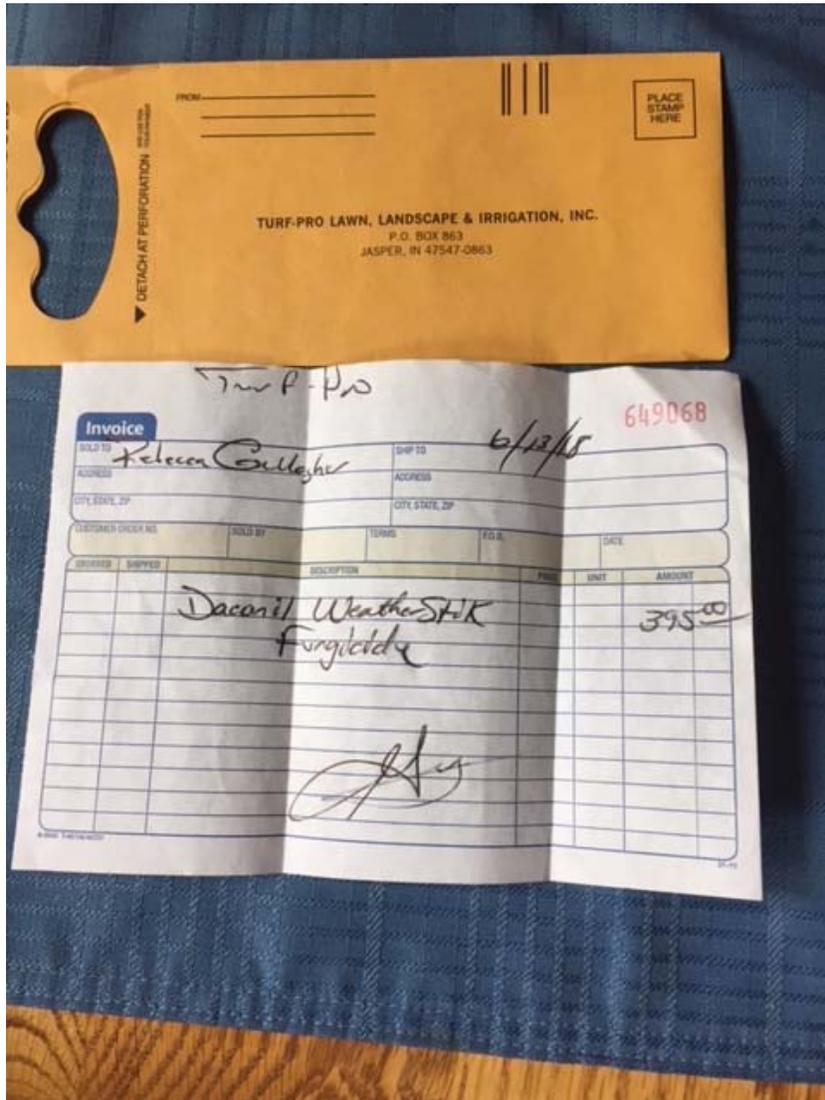


Fig. 1

- Fig. 1 is the invoice left behind at Mrs. Gallagher’s residence by Turf Pro Service stating “Daconil Weatherstik Fungicide”.

On Jun 14, 2018, at 8:39 AM, Shawn Gallagher <shawngsrr@icloud.com> wrote:

Hi Greg
 I hate to be a pest, but I have a concern. It rained pretty hard here last night. My concern is that the fungicide was washed away. I know that I am not suppose to water the lawn for 24 hours after normal application.
 Thanks
 Rebecca

On Jun 14, 2018, at 7:40 AM, Turf pro <turfprolawn@psci.net> wrote:

It’s a weather stick fungicide. Once it’s dried it was ok

Fig. 2

On Jun 16, 2018, at 1:28 PM, Shawn Gallagher <shawngsgr@icloud.com> wrote:

Hi Greg

It seems like most of our grass is now dying. Should the fungicide have also killed the grass? With all of the rain we had the grass was pretty green before they sprayed. Now it is dying. Even the zoysia that had no fungus issues is dying. They didn't accidentally use roundup by any chance did they?

On Jun 16, 2018, at 6:59 PM, Turf pro <turfprolawn@psci.net> wrote:

We did not use Roundup because I was the one that sprayed it

Fig. 3

- Fig. 2 is an email conversation between Mrs. Gallagher and Mr. Begle dated June 14, 2018 where Mr. Begle states, "It's a weather stick fungicide. Once it's dried it was ok". Indicating he used Daconil Weatherstik, EPA Reg.# 50534-209-100, Active Ingredient = Chlorothalonil
- Fig. 3 is an email conversation between Mrs. Gallagher and Mr. Begle dated June 16, 2018 where Mr. Begle states he was who made the application.

On Jun 18, 2018, at 2:06 PM, Shawn Gallagher <shawngsgr@icloud.com> wrote:

Greg

The product that you used on my lawn is not to be used on residential lawns.

http://www.sponline.com/sps/sites/default/files/imagefield_thumbs/DACONIL%20WEATHER%20STIK.pdf

<DACONIL WEATHER STIK.pdf>

On Jun 18, 2018, at 2:29 PM, Turf pro <turfprolawn@psci.net> wrote:

Hi Rebecca

The applicator that applied your fungicide use to apply fungicides for me at the West Boggs Golf Course. I'm assuming he left you a hand written bill stating he put a fungicide down. Well on the course fairways we used Dacanil throughout summer. He must have made a "typo" on his billing it should have been written on there "Propiconazole"

We do know Dacanil has been banned in thinking maybe 7 years from residential.

We keep up on all the new laws every winter for upcoming years...we can't control typos...

Sorry for inconvenience..

Turf Pro

On Jun 18, 2018, at 3:40 PM, Shawn Gallagher <shawngsgr@icloud.com> wrote:

I thought you personally
Applied the product

On Jun 18, 2018, at 3:06 PM, Turf pro <turfprolawn@psci.net> wrote:

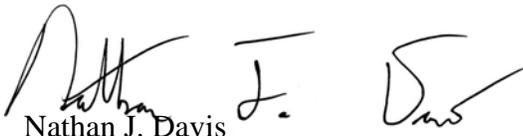
No we have other licensed applicators.

Fig. 4

- Fig. 4 is an email conversation between Mrs. Gallagher and Mr. Begle dated June 18, 2018 where Mr. Begle states a different applicator made the application and made a typo on the invoice and should have written in propiconazole.
4. According to the email conversation in Fig. 2 Mr. Begle states the product was a weatherstik fungicide, indicating the fungicide used was Daconil Weatherstik, EPA Reg. #50534-209-100, Active Ingredient = Chlorothalonil. According to the email conversation in Fig. 3 Mr. Begle stated he applied the fungicide himself. According to the email conversation in Fig. 4 Mr. Begle states a different applicator made the fungicide application and made a typo and should have written down propiconazole instead of.
 5. On August 16, 2018 I met with the owner of Turf Pro Service registered technician Greg Begle and his only certified applicator Gregory Borden at Denny's in Jasper, Indiana. I asked Mr. Begle if he used the product Daconil Weatherstik, EPA Reg. #50534-209-100, Active Ingredient = Chlorothalonil for the application on Mrs. Gallagher's lawn on June 13, 2018. Mr. Begle stated he did not apply Daconil Weatherstik Daconil Weatherstik, EPA Reg. #50534-209-100, Active Ingredient = Chlorothalonil. Mr. Begle stated after making the application he could not remember the name of the fungicide he used so he just wrote down the first fungicide he could remember and that was Daconil Weatherstik, EPA Reg. #50534-209-100, Active Ingredient = Chlorothalonil. Mr. Begle stated the product actually applied to the lawn was Bayer Advanced Fungus Control for Lawns Concentrate, EPA Reg. #72155-93, Propiconazole. I asked Mr. Begle who made the application and he stated his son unlicensed Austin Begle made the application while he was on the phone with a customer. I asked certified applicator Gregory Borden if he was on-site while the application was being and he stated he was not. I advised Mr. Borden Austin Begle could not make pesticide applications unless he was on-site.
 6. The OISC Residue Laboratory analyzed the composite soil sample collected from Mrs. Gallagher's lawn for the active ingredient in Bayer Advanced Fungus Control for Lawns Concentrate, EPA Reg. #72155-93, Propiconazole and reported the following:

Case # 2018/0912		Investigator: N. Davis	
Sample #	Sample Description	Sample Matrix	Amount Found (ng/swab)
			Propiconazole
2018-39-9694	Target Lawn Composite Soil	Soil	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC			
LOQ = 3 ppb			
Signature		Date	10/31/18

7. According to the OISC Residue Laboratory, analysis for the composite soil sample taken propiconazole was below detection limits. It should be noted the Bayer Advanced Fungus Control for Lawns Concentrate, EPA Reg. #72155-93, Propiconazole could have been applied, but with the length of time passed between the application date and sampling date the OISC Residue Laboratory was unable to detect the propiconazole.
8. The evidence of the invoice, emails, and statements made by Mr. Begle and Mr. Borden indicates the following. Greg Begle created a false invoice for the application made to Mrs. Gallagher's lawn. On the invoice it stated he applied Daconil Weatherstik, EPA Reg. #50534-209-100, Active Ingredient = Chlorothalonil, when the fungicide actually applied was Bayer Advanced Fungus Control for Lawns Concentrate, EPA Reg. #72155-93, Active Ingredient = Propiconazole. Also Greg Begle failed to supply Mrs. Gallagher with a proper customer leave behind notification required for all lawn care pesticide and fertilizer applications. Further, Austin Begle who is unlicensed made the application to Mrs. Gallagher's lawn on June 13, 2018 of Bayer Advanced Fungus Control for Lawns Concentrate, EPA Reg. #72155-93, Active Ingredient = Propiconazole without on-site supervision by certified applicator Gregory Borden.


Nathan J. Davis
Investigator

Date: November 9, 2018

Disposition: Gregory D. Borden was cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 357 IAC 1-5-3, for failure to provide a customer a valid written statement containing the pesticide applied. A civil penalty in the amount of \$100.00 was assessed for this violation.

Gregory D. Borden was cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-2-3, for failure to properly supervise a non-licensed employee. A civil penalty in the amount of \$125.00 was assessed for this violation.


George N. Saxton
Compliance Officer

Draft Date: December 11, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/0913

Complainant: Lynn Swagger
9400 E 400 N
Van Buren, IN 46991
765-661-1595

Respondent: Crop Production Services (CPS) Licensed Business
Richard Clark Certified Applicator
423 E 1000 S
Warren, IN 46792
260-375-2770

1. On July 12, 2018, Lynn Swagger spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a possible dicamba drift to his soybeans. Mr. Swagger stated he first noticed injury to his soybeans approximately two weeks ago.
2. On July 16, 2018, I contacted Crop Production Services. I received a completed Pesticide Investigation Inquiry (PII) form from Richard Clark. Mr. Clark documented he made an application on June 14, 2018, to the field north and east of Mr. Swagger's Liberty soybean field. See site diagram. Mr. Clark documented he applied Xtendimax (EPA Reg. #524-617, active ingredient dicamba) and Roundup (EPA Reg. #524-549, active ingredient glyphosate). Mr. Clark documented the wind was 3mph-5mph out of the south east, blowing toward Mr. Swagger's Liberty soybeans.



Site Diagram
Page 1 of 3

3. On July 18, 2018, I met Mr. Swagger at his Liberty soybean field located west of County Road 1200 E. and north of County Road 400 N. in Van Buren, Indiana. I observed exposure symptoms on the north end of Mr. Swagger’s field and the south end of Mr. Swagger’s field, by a different applicator. (See case summary 201800784). See figures 1-2.



Figure 1-Symptomology on north edge



Figure 2-Cupping on beans northeast side

4. On July 18, 2018, I collected a vegetation sample to be visually analyzed by Purdue’s Pest and Plant Diagnostic Lab (PPDL). Furthermore, I collected other investigative samples; however, the samples were not analyzed due to Mr. Clark’s PII admission of a label violation.
5. On July 19, 2018, PPDL reported the following:

Diagnosis and Recommendations

Host/Habitat	Soybean (Glycine max); Cultivar: Liberty
List of Diagnosis/ID(s)	
Suspected for Herbicide injury; Exposure (Abiotic disorder)	
Suspected for Soybean sudden death syndrome (Fusarium virguliforme)	

Final Report

7-19-18

Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.

Joe Ikley
 Weed Science Program Specialist
 Purdue University
 e-mail - jikley@purdue.edu
 Office - (765) 496-2121

7-19-18

Discoloration of the cortical tissue in the roots and stems of this soybean sample is suggestive of Sudden Death Syndrome (SDS).

<https://cropprotectionnetwork.org/library/>

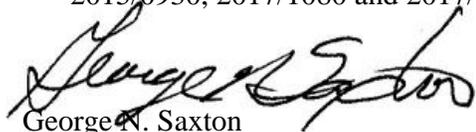
Gail Ruhl
 Plant Disease Diagnostician

6. Label language for Xtendimax states in part, “DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON.”

Paul J. Kelley III
 Paul J. Kelley
 Investigator

Date: October 29, 2018

Disposition: Richard Clark was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. Crop Production Services was assessed a civil penalty in the amount of \$1,000.00. Consideration was given to the fact this was Mr. Clark's fourth violation of failure to follow label directions regarding drift management. See case numbers 2015/0930, 2017/1080 and 2017/1081



George N. Saxton
Compliance Officer

Draft Date: December 5, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0914

Complainant: Michael Primus
3942 W. Carie Road
Vincennes, Indiana 47591
812-890-8543

Respondent: Doug Vieke
3915 S. Sixth Street
Vincennes, Indiana 47591
812-881-8204

Private Applicator

1. On August 13, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On August 14, 2018, I met with Michael Primus at his soybean field. Mr. Primus stated on or around July 19, 2018, he noticed his non-DT soybean field showing symptom of what he believed to be dicamba injury. Mr. Primus stated the soybean fields surrounding his non-DT soybean field were all dicamba tolerant soybeans.
3. During my on-site investigation I did the following:
 - a. Looked for, and found four potential sources of a growth regulator type herbicide applications in the area. The target field for this particular case is located directly to the south of Mr. Primus' soybean field across a gravel road (See Fig. 5). In regards to the other potential source of growth regulator type herbicide applications located in the area reference cases 2018/0934, 2018/0935 and 2018/1016.
 - b. Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybean plants across Mr. Primus' soybean field (See Fig 1, 2, 3 and 4). Symptoms were visible throughout Mr. Primus' soybean field. Symptoms were notably more severe on the south end of the field closet to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Primus' field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
 - d. Collected composite soil samples from the target soybean field. Collected vegetation samples from Mr. Primus' soybean field (See Fig. 5). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

- Fig. 1 is Mr. Primus' non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is Mr. Primus' non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 3 is an overview of Mr. Primus' non-DT soybeans field showing mostly uniform cupped/puckered leaves and discolored leaf tips.
- Fig. 4 is looking north across Mr. Primus' non-DT soybeans field.

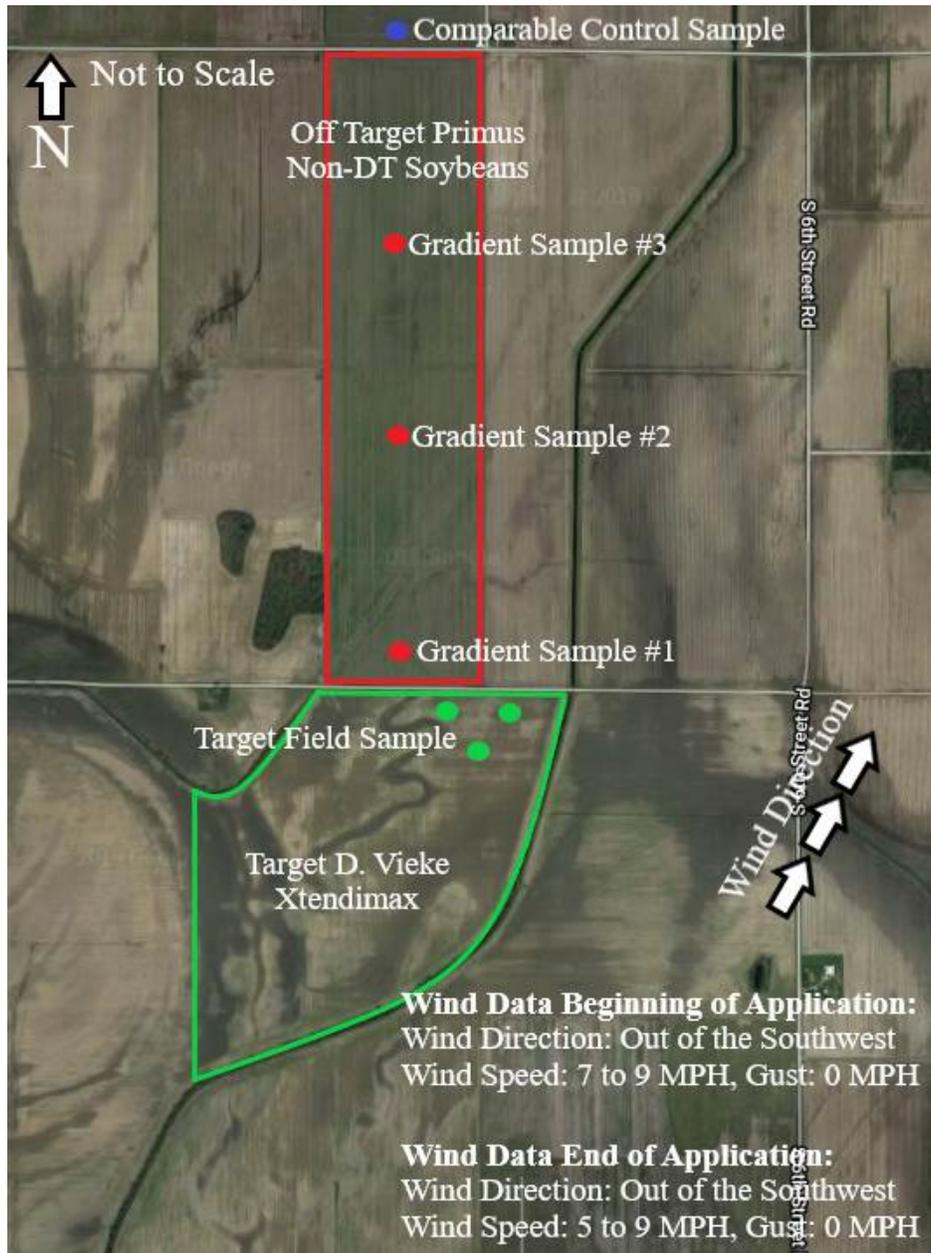


Fig. 5

- Fig. 5 is an aerial diagram of the fields including wind data, field property lines, and where soil and vegetation samples were taken from.
4. On August 17, 2018, I contacted the farmer of the target field, Doug Vieke, and advised Mr. Vieke I was a Pesticide Investigator for OISC and the complaint against him. Mr. Vieke stated he was familiar with the area and has a field to the south of Mr. Primus' field across a gravel road. Mr. Vieke stated he made an application of Xtendimax to the field to the south of Mr. Primus' field across the gravel road on June 30, 2018. I advised Mr. Vieke I would be sending him via email a Pesticide Investigation Inquiry for him to complete and return to me.
 5. On August 22, 2018 I received a completed Pesticide Investigation Inquiry from Mr. Vieke which indicated the following:

- a. Certified Applicator: Doug Vieke
- b. Application Date and Time: June 30, 2018, 9:51am to 12:15pm
- c. Pesticide Applied: Xtendimax, EPA #524-617, 22oz/Acre
Roundup Weathermax, EPA #524-537, 32oz/Acre
Warrant, EPA #524-591, 3pt/Acre
- d. Adjuvants: Strike Force and Reign
- e. Target Field Location and Size: Bucks, 165 Acres
- f. Pre- or Post- Emergent Application: Post
- g. Wind Direction at Boom Height: Start- SW, End- SW
- h. Wind Speed at Boom Height: Start- 2.7mph, End- 2.7mph
- i. Nozzle and Pressure: TTI 1104, 25psi
- j. Boom Height: 22 inches
- k. Downwind Buffer: Yes, Gravel road and neighboring cornfield.
- l. Checked Registrants Website before application: Yes, June 30, 2018
- m. Checked DriftWatch before application: Yes, June 30, 2018
- n. Dicamba Mandatory Training Attended: Yes, February 21, 2018
#18260141

6. Weather history data was obtained at www.wunderground.com from the three closest official weather station to the application site. The locations and weather data for June 30, 2018 follow:

- Lawrenceville-Vincennes International Airport (KLWV) located in Lawrenceville, Illinois 14 miles to the northeast of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/30/2018	9:53 AM	84 F	SSW	8 MPH	0 MPH
6/30/2018	10:53 AM	87 F	S	12 MPH	0 MPH
6/30/2018	11:53 AM	88 F	SSW	5 MPH	0 MPH

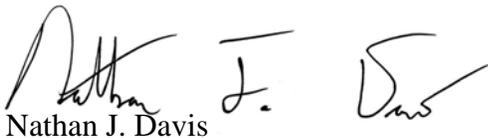
- Evansville Regional Airport (KEVV) located in Evansville, Indiana 36 miles to the south of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/30/2018	9:54 AM	84 F	VAR	7 MPH	0 MPH
6/30/2018	10:54 AM	85 F	SSW	7 MPH	0 MPH
6/30/2018	11:54 AM	87 F	VAR	6 MPH	0 MPH

- Terre Haute Regional Airport (KHUF) located in Terre Haute, Indiana 64 miles to the north of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/30/2018	9:53 AM	81 F	WSW	9 MPH	0 MPH
6/30/2018	10:53 AM	Weather Data Unavailable			
6/30/2018	11:53 AM	88 F	SSW	9 MPH	0 MPH

7. The triangulated wind data from the Lawrenceville-Vincennes International Airport (KLWV), Evansville Regional Airport (KEVV), and Terre Haute Regional Airport (KHUF) indicate the wind speed during the application was between 5 mph and 12 mph with no gusts out of the south-southwest.
8. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*
9. Samples taken during the investigation were not analyzed by the OISC Residue Laboratory due to the four dicamba applications made in the area applying the same tank mix partners and analyzing the samples would not produce results beneficial to the investigation.
10. The triangulated wind data from the Lawrenceville-Vincennes International Airport (KLWV), Evansville Regional Airport (KEVV), and Terre Haute Regional Airport (KHUF) indicate the wind speed during the application was between 5 mph (legal application) and 12 mph with no gust. The wind directions were all from the south, west and variable blowing towards the complainant's field. Since two locations showed winds 10 mph or below, the benefit of the doubt was given to the applicator in regards to wind speed, especially since wind direction is usually more reliably corroborated or refuted by various weather data sources than wind speed. Wind speed data can vary significantly based on location and height of weather station.
11. The label for *Xtendimax*, EPA Reg. #524-617, Active Ingredient = Dicamba 42.8% states: **“Do Not Apply this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes Non-dicamba tolerant soybean and cotton”**.
12. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide *Xtendimax*, EPA Reg. #524-617, Active Ingredient = Dicamba 42.8%. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



Nathan J. Davis
Investigator

Date: October 8, 2018

Disposition: Doug Vieke was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: November 27, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/0923

Complainant: Greg Westerhouse
6958 E 800 N
Monticello, IN 47960
574-595-5466

Respondent: Phil Hunt
6942 S 350 N
Monticello, IN 47960
765-427-5560

Private Applicator

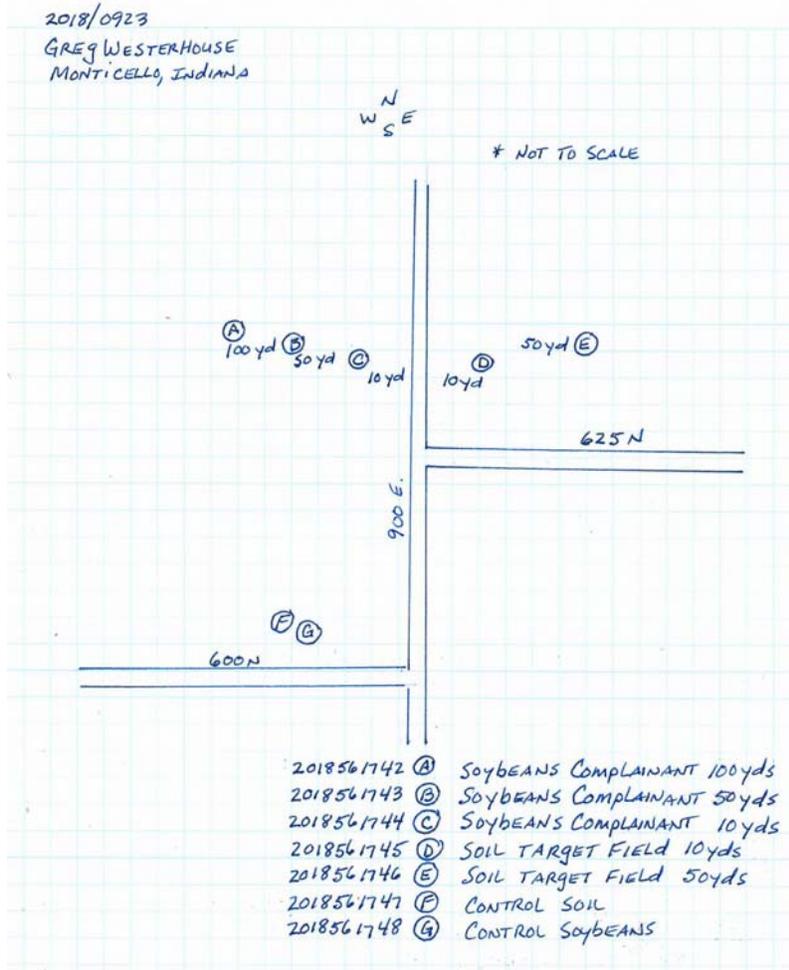
1. On August 23, 2018, Greg Westerhouse spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a dicamba drift complaint.
2. On August 30, 2018, I met with the complainant Greg Westerhouse. He told me he believed a pesticide application of dicamba from Phil Hunt drifted onto his non-tolerant dicamba (Liberty Link) soybeans.
3. I checked the complainant's soybean field. I observed soybean leaves cupped/puckered. Some of the soybeans also exhibited "holes" in the leaves. Much of the field appeared to be equally impacted. I obtained soybean samples from the complainant's field for submission to the Purdue Plant and Pest Diagnostic Lab (PPDDL) for analysis. (See photos below)



4. I placed the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis:
 - **2018561742** Soybeans complainant 100 yds.
 - **2018651743** Soybeans complainant 50 yds.
 - **2018561744** Soybeans complainant 10 yds.

- 2018561745 Soil target field 10 yds.
- 2018561746 Soil target field 50 yds.
- 2018561747 Control soil
- 2018561748 Control soybeans

(See diagram below)



- I made contact with Phil Hunt. He confirmed he made pesticide applications to the field located east of the complainant's field. He agreed to submit a completed Pesticide Investigation Inquiry (PII) for the application to his field.
- I received the following information from PPPDL: "*Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba*" and *Symptoms of soybean sudden death syndrome were observed. This fungal disease not cause of leaf distortion*".
- I received a completed PII from applicator Phil Hunt. According to Mr. Hunt, he made a pesticide application of **Xtendimax** (EPA #524-617; active ingredient: dicamba) and **Select Max** (EPA #59639-132; active ingredient clethodim) on May 28, 2018 between 7:30am and 8:45am to a field east of the complainant's field. He recorded the wind blowing at 6 miles per hour in a westerly direction toward the complainant's field. In further review of the PII, the applicator completed the record keeping elements required by the **Xtendimax** label.

8. The label for **Xtendimax** reads in part, “**DO NOT APPLY** this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops, this includes **NON-DICAMBA TOLERANT SOYBEAN AND COTTON**”
9. After reviewing all available information, Mr. Hunt is in violation of the **Xtendimax** label when he applied it while the wind was blowing toward the complainant’s field (as recorded by Mr. Hunt on the PII and confirmed at www.wunderground.com). Therefore, residue analysis was not requested.



Kevin W. Gibson
Pesticide Investigator

Date: November 21, 2018

Disposition: Phil Hunt was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: December 13, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/0936

Complainant: Dale Worland
8101 N. Windmill Road
Bicknell, Indiana 47512
812-890-1696

Respondent: Nicholas Byrd Private Applicator
10222 E. Royal Oak Church Road
Bicknell, Indiana 47512
812-881-0808

1. On July 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 31, 2018, I met with the complainant Dale Worland at his non-DT soybean field located near the intersection of Rout Road and Loudermilk Road in Bicknell, Indiana. Mr. Worland stated he noticed his non-DT soybean field showing symptoms of dicamba injury. Further, Mr. Worland stated Stafford Farms who farm to the southwest and Ice Farms who farm to the southeast of his field may have applied dicamba products.
3. During my on-site investigation I did the following:
 - a. Looked for, and found two potential sources of a growth regulator type herbicide applications in the area. The target field for this particular case is located directly to the southeast of Mr. Worland's non-DT soybean field across a gravel road. (See Fig. 5). In regards to the other potential source of growth regulator type herbicide application located in the area reference case 2018/0850.
 - b. Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybean plants across Mr. Worland's soybean field (See Fig. 1 and 2). Symptoms were visible throughout Mr. Worland's soybean field. Symptoms were notably more severe on the southeast and southwest ends of Mr. Worland's field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Worland's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
 - d. Collected a composite soil sample from the target soybean field. Collected vegetation samples from Mr. Worland's soybean field (See Fig. 5). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2



Fig. 3

- Fig. 1 is Mr. Worland's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is Mr. Worland's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 3 is looking east from Mr. Worland's non-DT soybean field towards the target field.

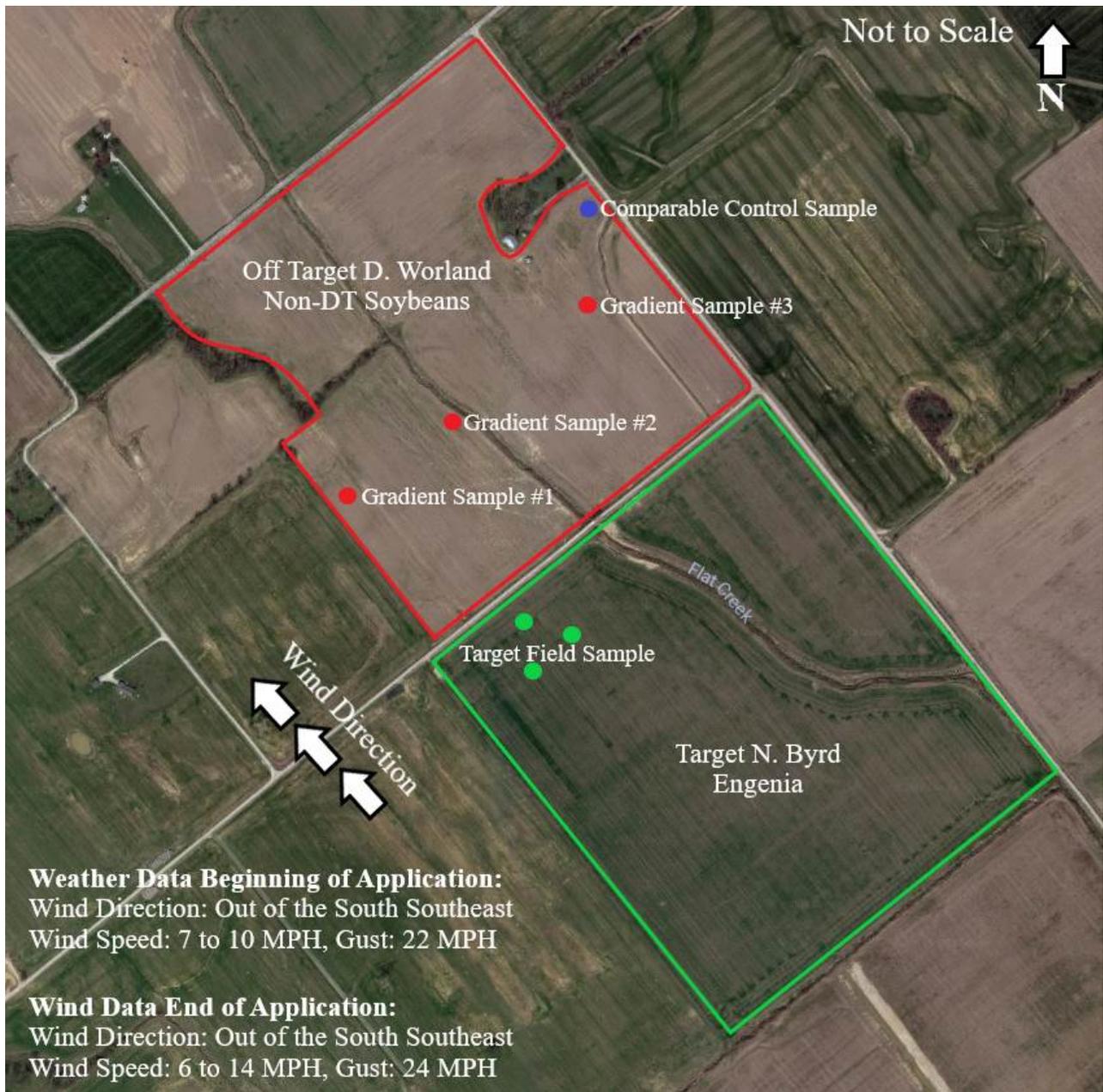


Fig. 5

- Fig. 5 is an aerial diagram of the fields including wind data, field property lines, and where soil and vegetation samples were taken from.

4. On July 31, 2018, while conducting my on-site investigation I met with the respondent Nicholas Byrd. I advised Mr. Byrd I was a Pesticide Investigator with OISC and the complaint against him. Mr. Byrd stated he made an application of Engenia to his field to the southeast of Mr. Worland’s field on July 3, 2018. I advised Mr. Byrd I would be sending him via email a pesticide investigation inquiry form to complete for the application and return to me.

5. On August 15, 2018, I received a completed Pesticide Investigation Inquiry from Mr. Stafford which indicated the following:

- a. Private Applicator: Nicholas Byrd
- b. Application Date and Time: July 3, 2018, 2:15pm to 3:45pm
- c. Pesticide Applied:
 Engenia, EPA Reg. #7969-345, Active = Dicamba, 12.8oz/Acre
 Cinch, EPA Reg. #352-625, Active = Metolachlor, 1.3pt/Acre
 Cornerstone Plus, EPA Reg. #1381-192, Active = Glyphosate, 32oz/Acre
- d. Adjuvants: AG1608 and Class Act Ridion
- e. Target Field Location and Size: Ellis Big/Ellis Small, 102.93 Acres
- f. Pre- or Post- Emergent Application: Post
- g. Wind Direction at Boom Height: Start- SSE, End- SSE
- h. Wind Speed at Boom Height: Start- 6mph, End- 7mph
- i. Nozzle and Pressure: Teejet TTI04, 50 to 60psi
- j. Boom Height: 16 inches
- k. Downwind Buffer: 110ft from end rows plus 30ft buffer strip
- l. Checked Registrants Website before application: Yes, May 14, 2018
- m. Checked DriftWatch before application: Yes, May 14, 2018
- n. Dicamba Mandatory Training Attended: Yes, January 4, 2018 #10641

6. Weather history data was obtained at www.wunderground.com from the three closest official weather station to the application site. The locations and weather data for July 3, 2018 follow:

- Lawrenceville-Vincennes International Airport (KLWV) located in Lawrenceville, Illinois 14 miles to the west of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
7/3/2018	1:53 PM	Weather Data Unavailable for this time.			
7/3/2018	2:53 PM	89 F	SE	12 MPH	0 MPH
7/3/2018	3:53 PM	92 F	SSE	9 MPH	0 MPH

- Evansville Regional Airport (KEVV) located in Evansville, Indiana 47 miles to the south of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
7/3/2018	1:54 PM	81 F	SSE	10 MPH	22 MPH
7/3/2018	2:54 PM	79 F	NNE	5 MPH	0 MPH
7/3/2018	3:54 PM	85 F	S	6 MPH	0 MPH

- Monroe County Airport (KBMG) located in Bloomington, Indiana 50 miles to the northeast of the application site:

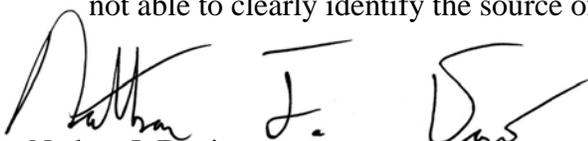
Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
7/3/2018	1:53 PM	88 F	SSE	7 MPH	0 MPH
7/3/2018	2:53 PM	89 F	VAR	3 MPH	0 MPH
7/3/2018	3:53 PM	81 F	SSE	14 MPH	24 MPH

- The triangulated wind data from the Lawrenceville-Vincennes International Airport (KLWV), Evansville Regional Airport (KEVV), and Monroe County Airport (KBMG) indicate the wind speed during the application was between 3 mph and 14 mph with a gust of 24 mph and wind direction were out of the south or east.
- The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*
- The OISC Residue Laboratory analyzed the vegetation samples collected from the off target field and soil samples collected from the target fields for metolachlor. Metolachlor is the tank mix partner unique to this application and reported the following:

Case #	2018/0850		Investigator	N. Davis		
Sample #	Sample Description	Amount of Analyte (ng/swab or ppb)				
		Matrix	Metolachlor	Dicamba	5-OH Dicamba	DCSA
2018-39-9669	Comparable control composite veg grass from field	Vegetation	BDL	Did not test	Did not test	Did not test
2018-39-9670	SE target field #1 ICE soil	Soil	26.3	Did not test	Did not test	Did not test
2018-39-9671	SW target field #2 Stafford soil	Soil	17.5	Did not test	Did not test	Did not test
2018-39-9672	Off target gradient #1 veg soybeans	Vegetation	BDL	Did not test	Did not test	Did not test
2018-39-9673	Off target gradient #2 veg soybeans	Vegetation	BDL	Did not test	Did not test	Did not test
2018-39-9674	Off target gradient #3 veg soybeans	Vegetation	BDL	Did not test	Did not test	Did not test
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC						
LOQ (ppb)	Soil		3	Did not test	Did not test	Did not test
LOQ (ppb)	Vegetation		3	Did not test	Did not test	Did not test
Signature				Date	10/26/18	

- The OISC Residue Laboratory analysis detected metolachlor in both target fields. Metolachlor was below detection limits in the off target gradient vegetation samples.

11. The triangulated wind data from the Lawrenceville-Vincennes International Airport (KLWV), Evansville Regional Airport (KEVV), and Monroe County Airport (KBMG) indicate the wind speed during the application was between 3 mph (legal application) and 14 mph with a gust of 24mph. The wind directions were out of the south or east blowing towards the complainant's field. Since locations showed winds 10 mph or below, the benefit of the doubt was given to the applicator, especially since wind direction is usually more reliably corroborated or refuted by various weather data sources than wind speed. Wind speed data can vary significantly based on location and height of weather station.
12. According to the application records and triangulated wind data, the wind was out of the south southeast blowing towards the complainant's non-DT soybean field. The label for *Engenia*, EPA Reg. #7969-345, Active Ingredient = Dicamba states: **"DO NOT apply when wind is blowing in the direction of neighboring sensitive crops. Sensitive crops include, but are not limited to: non-DT soybeans"**.
13. According the application records Mr. Byrd's tank mix included the pesticide *Cinch*, EPA Reg. #352-625, Active Ingredient = Metolachlor. The label for *Engenia*, EPA Reg. #7969-345, Active Ingredient = Dicamba states: **"Engenia may only be tank-mixed with products that have been tested and found by the EPA not to have an unreasonable adverse effect on the spray drift properties of Engenia. A list of those EPA approved products may be found at www.engeniatankmix.com. DO NOT tank mix any product with Engenia unless: The intended product tank-mix with Engenia is identified on that list of tested and approved products"**. The pesticide *Cinch*, EPA Reg. #352-625, Active Ingredient = Metolachlor is not included in the list of approved tank mix partners on www.engeniatankmix.com.
14. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide *Engenia*, EPA Reg. #7969-345, Active Ingredient = Dicamba. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.


Nathan J. Davis
Investigator

Date: November 30, 2018

Disposition: Nicholas Byrd was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management and non-sanctioned tank mix. A civil penalty in the amount of \$100.00 was assessed for this violation.


George N. Saxton
Compliance Officer

Draft Date: December 13, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/0947

Complainant: Julie Osbon
Pierce Family Farms
Shockey 80 Field
302 Zehner Street
Windfall, Indiana 46076
765-437-9187

Respondent: Hartley Grain
Kirk Rutherford
Jesse Kelich
100 S. Cobb Street
Elwood, Indiana 46036
765-552-7311

Licensed Business
Supervisor
Registered Technician

1. On August 31, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected agricultural dicamba pesticide drift to her beans.
2. On September 5, 2018, I met with complainant Julie Osbon, office manager for Pierce Family Farms. She said Pierce Family Farms had several fields affected by what they believed to be dicamba applications to neighboring farm fields. She told me all the fields were custom applied by Hartley Grain. All locations were located in Tipton County near Windfall, Indiana. The fields were known as the following:
 - Shockey 80
 - Perry 90 (see case #2018/1012)
 - Perry 45 (see case #2018/1013)
 - Burnt Barn (see case #2018/1014)
 - Morford-Hull (see case#2018/1015)
3. I checked each field described by Ms. Osbon. I observed some puckering on some of the soybean plants. I also observed what appeared to be insect damage on other soybean plants. (see photos below):



4. I obtained soybean samples from each field described above for submission to the Purdue Plant and Pesticide Diagnostic Lab (PPDL) for analysis.
5. I met with Hartley Grain manager David Holloway concerning complaint. He confirmed Hartley Grain made the pesticide applications to the farm fields in question. According to Mr. Holloway, the most recent pesticide application to the “Shockey 80” field was June 18, 2018. I gave him a copy of a Pesticide Investigation Inquiry (PII). I advised him I needed a completed PII for the field.
6. I received the following information from PPDL: *“No evidence of dicamba or other herbicide injury on samples or submitted pictures. Insect feeding damage was observed as well as Frog-eyed (Leaf Spot)”*
7. No environmental samples were obtained for analysis by OISC Residue lab. OISC Residue lab director Ping Wan told me any environmental samples collected sixty (60) days after a pesticide application would have no evidentiary value.
8. On September 5, 2018, I received an email from Mr. Holloway of Hartley Grain. Attached to the email was a copy of a PII for this case. The PII itself had written on the first page, “See Application Reports”. The second page was signed by David Holloway. The requested information was left blank. A total of four (4) copies of pesticide application records were included with the email. In reviewing the application records for PII information, I found the following PII questions unanswered. (see below):

6. Business license #
16. Site surveyed before application for nearby sensitive crops or sites
29. EPA Reg. No(s)
34. Name of mixer/loader
36. Name of spray cleaner
38. For applications of Enlist Duo, Engenia, FeXapan or Xtendimax herbicides:

- a. Date DriftWatch website checked for sensitive crops/sites
- b. Date registrant’s website checked for approved tank mixes

39. For applications of Engenia, FeXapan or Xtendimax herbicides:

- a. Date, city, CCH/PARP # of dicamba training attended

Not all application records recorded time application ended.

9. I emailed Mr. Holloway concerning the lack of information of the PII. Specifically I requested the applicator complete and sign a PII form for each application concerning this complaint.
10. On October 3, 2018, I received another email from Mr. Holloway. The email had an attachment for the pesticide application records and PIIs. As before, I reviewed the attachments and found unanswered questions on the PII. (see below)

6. Business license #
16. Site surveyed before application for nearby sensitive crops or sites

- 29. EPA Reg. No(s)
- 36. Name of spray cleaner
- 38. For applications of Enlist Duo, Engenia, FeXapan or Xtendimax herbicides:

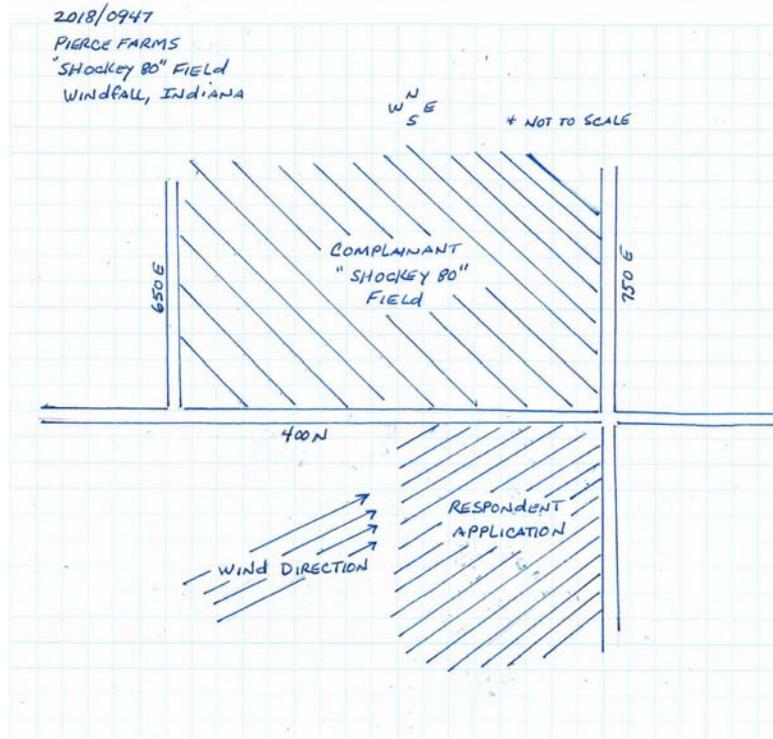
- a. Date DriftWatch website checked for sensitive crops/sites
- b. Date registrant’s website checked for approved tank mixes

- 39. For applications of Engenia, FeXapan or Xtendimax herbicides:

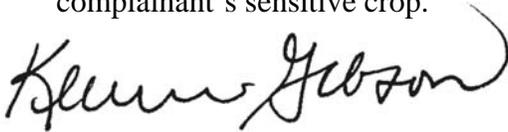
- a. Date, city, CCH/PARP # of dicamba training attended

Not all application records recorded the application end time and none of the PIIs had been signed by applicator Jesse Kelich.

- 11. I made contact with applicator Jesse Kelich. He agreed to complete the PII. He told me his supervisor for the pesticide applications was Kirk Rutherford.
- 12. I received the completed PII from Mr. Kelich. According to the PII, all missing information from the previous PII was completed as required with the exception of the EPA product regulation numbers for the pesticide products Engenia, Zidua and Buccaneer Plus. I confirmed with OISC Licensing section Mr. Kelich and Mr. Rutherford attended the mandatory Dicamba training in 2018.
- 13. According to the application records submitted with the PII, the wind was recorded at 15 miles per hour at the time of the application from the west-southwest blowing in an east-northeasterly direct across the southeastern portion of the complainant’s field. (see diagram below):



14. The label for Engenia (EPA #7969-345, active ingredient: dicamba) reads in part, “Applicators must keep the following records for a period of two years; records must be generated within 14 days of application and a record must be kept for every individual application. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. The following information must be recorded and kept as required by Federal Pesticide Record Keeping Program, 7 CFR Part 110: **EPA registration number**” “Apply **Engenia** at wind speeds between 3 and 10 mph” and **DO NOT** apply when wind is blowing in the direction of neighboring sensitive crops”
15. After reviewing available information, Kirk Rutherford and Jesse Kelich are in violation for failure to record the EPA number of **Engenia**, for making an **Engenia** application at wind speeds greater than 10 mph and for applying **Engenia** when the wind was blowing in the direction of the complainant’s sensitive crop.



Kevin W. Gibson
Investigator

Date: November 12, 2018

Disposition: Kirk Rutherford and Jesse Kelich were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-4-1, for failure to keep all required restricted use pesticide application record elements. A civil penalty in the amount of \$25.00 was assessed for this violation.

Kirk Rutherford and Jesse Kelich were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding spray drift management. A civil penalty in the amount of \$250.00 was assessed to Hartley Grain.



George N. Saxton
Compliance Officer

Draft Date: December 12, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/0960

Complainant: Marty Heffner
732 N 300 E
Center Point, Indiana 47840
812-239-6784

Respondent: Chad Brown Private Applicator
1492 N. County Road 200 E.
Center Point, Indiana 47840
812-201-8621

1. On June 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 9, 2018, I met with Marty Heffner at his soybean field located near S. County Road 300 E. and E. County Road 150 S. in Center Point, Indiana. Mr. Heffner stated on or around June 25, 2018, he noticed his non-DT soybean field showing symptoms of dicamba injury. Mr. Heffner stated Ceres Solutions or Chad Brown may have made a dicamba application to the south of his field recently.
3. During my on-site investigation I did the following:
 - a. Looked for, and found two potential sources of a growth regulator type herbicide applications in the area. The target field for this particular case is located to the southeast of Mr. Heffner's soybean field across two soybean fields and a county road (See Fig. 5). In regards to the other potential source of growth regulator type herbicide application located in the area reference case 2018/0683.
 - b. Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybean plants across Mr. Heffner's soybean field (See Fig 1, 2, and 3). Symptoms were visible throughout Mr. Heffner's soybean field. Symptoms were notably more severe on the south end of the field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Heffner's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
 - d. Collected composite soil and vegetation samples from the target soybean field. Collected gradient soil and vegetation samples from Mr. Heffner's soybean field (See Fig. 5). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

- Fig. 1 is Mr. Heffner's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is Mr. Heffner's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 3 is an overview of Mr. Heffner's non-DT soybeans field showing mostly uniform cupped/puckered leaves and discolored leaf tips.
- Fig. 4 is looking southeast across Mr. Heffner's non-DT soybeans field.

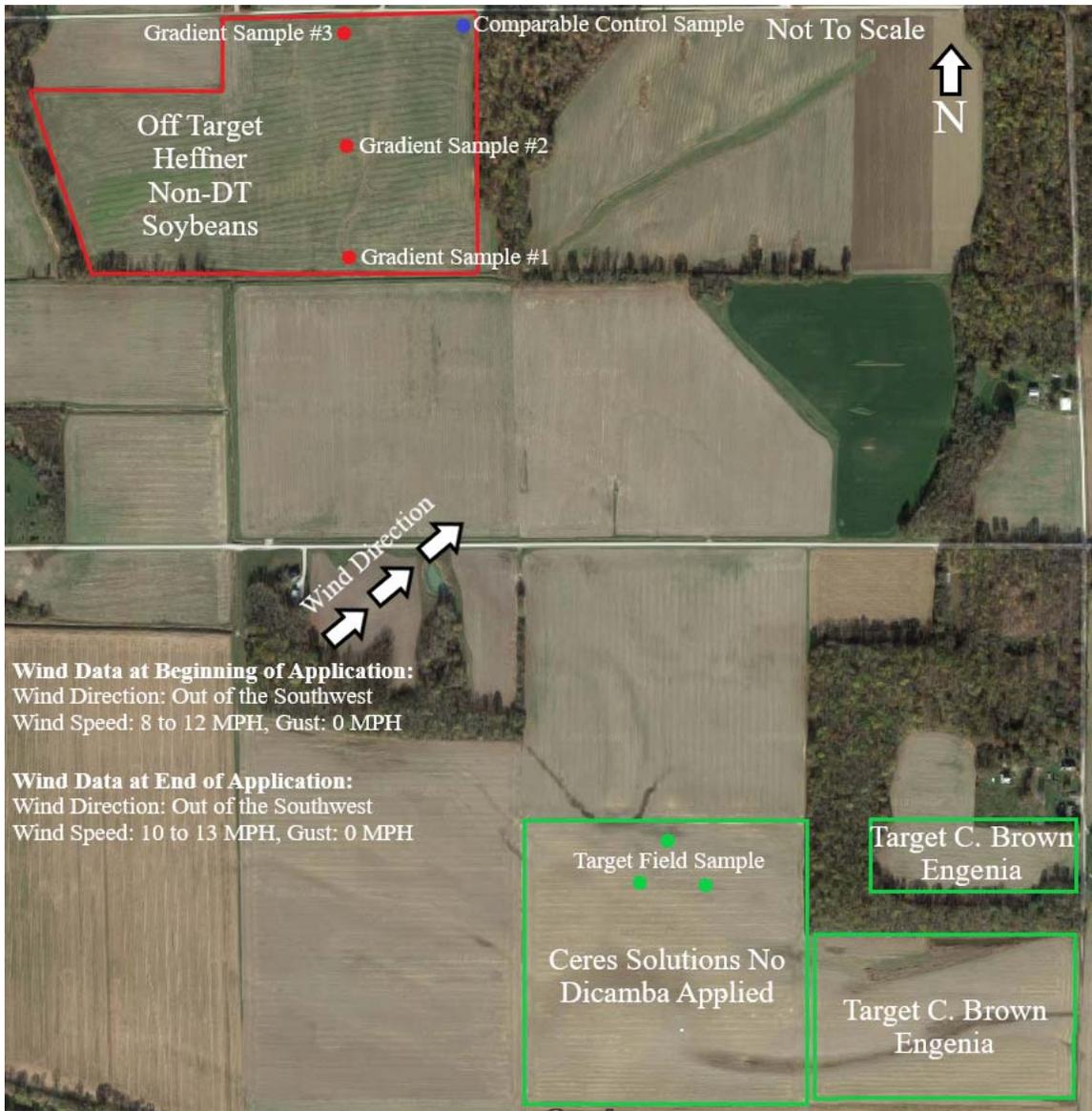


Fig. 5

- Fig. 5 is an aerial diagram of the fields including wind data, field property lines, and where soil and vegetation samples were taken from.
4. On July 18, 2018, I met with private applicator Chad Brown. I advised Mr. Brown I was a Pesticide Investigator for OISC and the complaint against him. Mr. Brown stated he was familiar with area and he has three fields to the southeast of Mr. Heffner's field across several soybean fields and a county road. Mr. Brown stated no dicamba products were used in the field closet to Mr. Heffner's field due to the close proximity to a different non-DT soybean field. Further, Mr. Brown stated he made an application of Engenia to the two other field's one right after the other with the same tank mix on June 18, 2018. I advised Mr. Brown I would be sending him via email a Pesticide Investigation Inquiry for him to complete and return to me.
 5. On July 26, 2018, I received a completed Pesticide Investigation Inquiry from Mr. Brown which indicated the following:

- Private Applicator: Chad Brown
- Application Date and Time: June 18, 2018, 1:15pm to 2:07pm
- Pesticide Applied: Cornerstone Plus 5, EPA Reg. #31381-241, Glyphosate Section Three, EPA Reg. #66330-414-1381, Clethodium Engenia, EPA Reg. #7969-345, Dicamba, 12.8oz/Acre
- Adjuvants: Class Act Ridion, Superb, and Ag16098
- Target Field Location and Size: Riney Bottoms, 30 Acres
- Pre- or Post- Emergent Application: Post
- Wind Direction at Boom Height: Start- SW, End- SW
- Wind Speed at Boom Height: Start- 5mph, End- 7mph
- Nozzles and Pressure: Turbo TeeJet Induction TT1005, 40lbs
- Boom Height: 20 to 24 inches
- Downwind Buffer: No – 100% adjacent property.
- Checked Registrants Website before application: Yes, June 9, 2018
- Checked DriftWatch before application: Yes, June 8, 2018
- Dicamba Mandatory Training Attended: Yes, January 12, 2018 #18110029

6. Weather history data was obtained at www.wunderground.com from the three closest official weather station to the application site. The locations and weather data for June 18, 2018 follow:

- Terre Haute Regional Airport (KHUF) located in Terre Haute, Indiana 13 miles to the northwest of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/18/2018	12:53 PM	91 F	SW	9 MPH	0 MPH
6/18/2018	1:53 PM	91 F	SW	10 MPH	0 MPH

- Indianapolis International Airport (KIND) located in Indianapolis, Indiana 46 miles to the northeast of the application site:

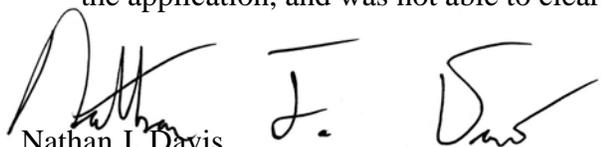
Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/18/2018	12:54 PM	90 F	WSW	12 MPH	0 MPH
6/18/2018	1:54 PM	91 F	SW	13 MPH	0 MPH

- Lawrenceville-Vincennes International Airport (KLWV) located in Lawrenceville, Illinois 50 miles to the southwest of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/18/2018	12:53 PM	90 F	SW	8 MPH	0 MPH
6/18/2018	1:53 PM	92 F	SW	12 MPH	0 MPH

7. The triangulated wind data from the Terre Haute Regional Airport (KHUF), Indianapolis International Airport (KIND), and Lawrenceville-Vincennes International Airport (KLWV) indicate the wind speed during the application was between 8 mph and 13 mph with no gust.

8. The reports from the PPPDL samples taken from Mr. Heffner's field stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*
9. Soil and vegetation samples taken during the investigations were not analyzed by the OISC Residue Laboratory due to both dicamba applications made in the area applying the same tank mix partners and analyzing the samples would not produce results beneficial to the investigations.
10. The triangulated wind data from the Terre Haute Regional Airport (KHUF), Indianapolis International Airport (KIND), and Lawrenceville-Vincennes International Airport (KLWV) indicate the wind speed during the application was between 8 mph (legal application) and 13 mph with no gust. The wind directions were all from the south or west blowing away from the complainant's field. Since two locations showed winds 10 mph or below, the benefit of the doubt was given to the applicator, especially since wind direction is usually more reliably corroborated or refuted by various weather data sources than wind speed. Wind speed data can vary significantly based on location and height of weather station.
11. On September 14, 2018, I spoke to Mr. Brown in regards to if he used the required downwind buffer during the application of Engenia. Mr. Brown stated he did not use a downwind buffer during the application and nobody else around him uses a downwind buffer when woods are downwind. The label for *Engenia, EPA Reg. #7969-345, Active Ingredient = dicamba* states, **"Maintain a 110 foot buffer when applying this product from the downwind outer edges of the field"**.
12. It should be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



Nathan J. Davis
Investigator

Date: September 17, 2018

Disposition: Chad Brown was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management for not leaving a buffer. A civil penalty in the amount of \$100.00 was assessed for this application in case number 2018/0759.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



George N. Saxton
Compliance Officer

Draft Date: November 13, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0961

Complainant: Kegan Knust
23 N. County Road 150 W.
Center Point, Indiana 47840
812-236-5352

Respondent: Chad Brown Private Applicator
1492 N. County Road 200 E.
Center Point, Indiana 47840
812-201-8621

1. On June 25, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 16, 2018, I met with Kegan Knust at his soybean field located near E. County Road 200 S. and S. County Road 325 E. in Center Point, Indiana. Mr. Knust stated he noticed his non-DT soybean field showing symptoms of dicamba injury. Mr. Knust stated he thought Ceres solutions and possibly someone else had made a dicamba application in the area recently.
3. During my on-site investigation I did the following:
 - a. Looked for, and found two potential sources of a growth regulator type herbicide applications in the area. The target field for this particular case is located to the southwest of Mr. Knust's soybean field (See Fig. 5). In regards to the other potential source of growth regulator type herbicide application located in the area reference case 2018/0758.
 - b. Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybean plants across Mr. Knust's soybean field (See Fig 1 and 2). Symptoms were visible throughout Mr. Knust's soybean field. Symptoms were notably more severe on the south end of the field closet to the target field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field exhibited no symptoms.
 - c. Collected samples of injured soybean plants from Mr. Knust's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDDL)
 - d. Collected composite soil and vegetation samples from the target soybean field. Collected gradient soil and vegetation samples from Mr. Knust's soybean field (See Fig. 5). The residue samples were submitted to the OISC Residue Laboratory for analysis.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

- Fig. 1 is Mr. Knust's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 2 is Mr. Knust's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.
- Fig. 3 is an overview of Mr. Knust's non-DT soybeans field looking south from the road
- Fig. 4 is the south border between Mr. Knust's field and Mr. Brown's field which no dicamba products were applied.



Fig. 5

- Fig. 5 is an aerial diagram of the fields including wind data, field property lines and where soil and vegetation samples were taken from.
4. On July 18, 2018, I met with private applicator Chad Brown. I advised Mr. Brown I was a Pesticide Investigator for OISC and the complaint against him. Mr. Brown stated he was familiar with area and he has three fields to the south and southeast of Mr. Knust's field. Mr. Brown stated no dicamba products were used in the field that borders Mr. Knust's field due to the close proximity of Mr. Knust's non-DT soybean field. Further, Mr. Brown stated he made an application of Engenia to the two other field's one right after the other with the same tank mix on June 18, 2018. I advised Mr. Brown I would be sending him via email a Pesticide Investigation Inquiry for him to complete and return to me.
 5. On July 26, 2018 I received a completed Pesticide Investigation Inquiry from Mr. Brown which indicated the following:
 - a. Private Applicator: Chad Brown
 - b. Application Date and Time: June 18, 2018, 1:15pm to 2:07pm
 - c. Pesticide Applied: Cornerstone Plus 5, EPA Reg. #31381-241, Glyphosate Section Three, EPA Reg. #66330-414-1381, Clethodium Engenia, EPA Reg. #7969-345, Dicamba, 12.8oz/Acre
 - d. Adjuvants: Class Act Ridion, Superb, and Ag16098

- e. Target Field Location and Size: Riney Bottoms, 30 Acres
- f. Pre- or Post- Emergent Application: Post
- g. Wind Direction at Boom Height: Start- SW, End- SW
- h. Wind Speed at Boom Height: Start- 5mph, End- 7mph
- i. Nozzles and Pressure: Turbo TeeJet Induction TT1005, 40lbs
- j. Boom Height: 20 to 24 inches
- k. Downwind Buffer: No – 100% adjacent property.
- l. Checked Registrants Website before application: Yes, June 9, 2018
- m. Checked DriftWatch before application: Yes, June 8, 2018
- n. Dicamba Mandatory Training Attended: Yes, January 12, 2018
#18110029

6. Weather history data was obtained at www.wunderground.com from the three closest official weather station to the application site. The locations and weather data for June 18, 2018 follow:

- Terre Haute Regional Airport (KHUF) located in Terre Haute, Indiana 13 miles to the northwest of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/18/2018	12:53 PM	91 F	SW	9 MPH	0 MPH
6/18/2018	1:53 PM	91 F	SW	10 MPH	0 MPH

- Indianapolis International Airport (KIND) located in Indianapolis, Indiana 46 miles to the northeast of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/18/2018	12:54 PM	90 F	WSW	12 MPH	0 MPH
6/18/2018	1:54 PM	91 F	SW	13 MPH	0 MPH

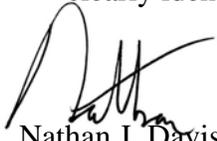
- Lawrenceville-Vincennes International Airport (KLWV) located in Lawrenceville, Illinois 50 miles to the southwest of the application site:

Date	Time	Temperature	Wind Direction	Wind Speed	Wind Gust
6/18/2018	12:53 PM	90 F	SW	8 MPH	0 MPH
6/18/2018	1:53 PM	92 F	SW	12 MPH	0 MPH

7. The triangulated wind data from the Terre Haute Regional Airport (KHUF), Indianapolis International Airport (KIND), and Lawrenceville-Vincennes International Airport (KLWV) indicate the wind speed during the application was between 8 mph and 13 mph with no gust.

8. The reports from the PPPDL samples taken from both of Mr. Knust fields stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*

9. Soil and vegetation samples taken during the investigations were not analyzed by the OISC Residue Laboratory due to both dicamba applications made in the area applying the same tank mix partners and analyzing the samples would not produce results beneficial to the investigations.
10. The triangulated wind data from the Terre Haute Regional Airport (KHUF), Indianapolis International Airport (KIND), and Lawrenceville-Vincennes International Airport (KLWV) indicate the wind speed during the application was between 8 mph (legal application) and 13 mph with no gust. The wind directions were all from the south or west blowing away from the complainant's field. Since two locations showed winds 10 mph or below, the benefit of the doubt was given to the applicator, especially since wind direction is usually more reliably corroborated or refuted by various weather data sources than wind speed. Wind speed data can vary significantly based on location and height of weather station.
11. On September 14, 2018, I spoke to Mr. Brown in regards to if he used the required downwind buffer during the application of Engenia. Mr. Brown stated he did not use a downwind buffer during the application and nobody else around him uses a downwind buffer when woods are downwind. The label for *Engenia*, EPA Reg. #7969-345, Active Ingredient = dicamba states, **“Maintain a 110 foot buffer when applying this product from the downwind outer edges of the field”**.
12. Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide *Engenia*, EPA Reg. #7969-345, Active Ingredient = dicamba. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.


 Nathan J. Davis
 Investigator

Date: September 17, 2018

Disposition: Chad Brown was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management for not leaving a buffer. A civil penalty in the amount of \$100.00 was assessed for this application in case number 2018/0759.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.


 George N. Saxton
 Compliance Officer

Draft Date: November 13, 2018
 Final Date: January 22, 2019

CASE SUMMARY

Case #2018/0995

Complainant: Office of Indiana State Chemist (OISC)
175 South University Street
West Lafayette, Indiana 47907
800-893-6637

Respondent: Beasley's Orchard
Calvin Beasley
2304 E. Main Street
Danville, Indiana 46122
317-523-4760

Certified Applicator

1. On September 19, 2018, I, Agent Kevin Gibson of the Office of Indiana State Chemist (OISC), conducted a **Worker Protection Standard (WPS)** inspection at Beasley's Orchard in Danville, Indiana.
2. I met with owner/certified applicator Calvin Beasley. Mr. Beasley told me he makes the pesticide applications for the orchard. He gave me a copy of his pesticide application records for the beginning of the 2018 season. According to the records, one of the products he applied was **Ziram 76DF** (EPA Reg. #70506-173; active ingredient: zinc dimethyldithiocarbamate) on April 13, 2018.
3. The **Ziram 76DF** label reads, "*Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notifications to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated during the restricted entry interval (REI) of 48 hours. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water, is:*"

Coveralls

Chemical resistance gloves made of any waterproof material

Shoes plus socks

Protective eyewear

4. Mr. Beasley told me he had never conducted any **Pesticide Safety Training** for his employees. He also told me he had never used **Central Posting** for safety posters or emergency medical facility information.

5. Mr. Beasley told me he (as the certified applicator) orally notified his employees prior to making each pesticide application. Access to the application areas was always restricted to anyone on site.
6. Mr. Beasley told me did use a respirator during some of the pesticide applications. However, he also told me he did not receive a medical evaluation or a respirator fit test.
7. Mr. Beasley said he did not have the required soap, water and paper towels for workers in case there was a pesticide exposure incident. Although if any exposures were to occur, then his employees were required to report to him. If any medical assistance was required, then he would call an ambulance for treatment.
8. In summary, Mr. Beasley failed to provide **Pesticide Safety Training** or **Central Posting** for his employees as required by the **Worker Protection Standards**. He also did not obtain a **Medical Evaluation** or **Respirator Fit Test** as further required by the **Worker Protection Standards**.



Kevin W. Gibson
Investigator

Date: October 1, 2018

Disposition: Calvin Beasley was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding agricultural use requirements. A civil penalty in the amount of \$250.00 was assessed to Beasley's Orchard. Consideration was given to the fact there was potential for human harm



George N. Saxton
Compliance Officer

Draft Date: November 13, 2018
Final Date: January 22, 2019

CASE SUMMARY

Case #2018/1012

Complainant: Julie Osbon
Pierce Family Farms
Perry 90 Field
302 Zehner Street
Windfall, Indiana 46076
765-437-9187

Respondent: Hartley Grain
Kirk Rutherford
Jesse Kelich
100 S. Cobb Street
Elwood, Indiana 46036
765-552-7311

**Licensed Business
Supervisor
Registered Technician**

1. On August 31, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected agricultural dicamba pesticide drift to her beans.
2. On September 5, 2018, I met with complainant Julie Osbon, office manager for Pierce Family Farms. She said Pierce Family Farms had several fields affected by what they believed to be dicamba applications to neighboring farm fields. She told me all the fields were custom applied by Hartley Grain. All locations were located in Tipton County near Windfall, Indiana. The fields were known as the following:
 - Perry 90
 - Perry 45 (see case #2018/1013)
 - Burnt Barn (see case #2108/1014)
 - Morford-Hull (see case #2018/1015)
 - Shockey 80 (see case #2018/0947)
3. I checked each field described by Ms. Osbon. I observed some puckering on some of the soybean plants. I also observed what appeared to be some insect damage on other soybean plants in the "Perry 90 field" (see photos below):



4. I obtained soybean samples from the field described above for submission to the Purdue Plant and Pesticide Diagnostic Lab (PPDL) for analysis.
5. I met with Hartley Grain manager David Holloway concerning complaint. He admitted Hartley Grain made the pesticide applications to the farm fields in question. According to Mr. Holloway, the most recent pesticide application to the “Perry 90” field was June 15, 2018. I gave him a copy of a Pesticide Investigation Inquiry (PII). I advised him I need a completed PII for the field.
6. I received the following information from PPDL: *“No evidence of dicamba or other herbicide injury on samples or submitted pictures.”*
7. No environmental samples were obtained for analysis by OISC Residue lab. OISC Residue lab director Ping Wan told me any environmental samples collected sixty (60) days after a pesticide application would have no evidentiary value.
8. On September 5, 2018, I received an email from Mr. Holloway of Hartley Grain. Attached to the email was a copy of a PII for this case. The PII itself had written on the first page, “See Application Reports”. The second page was signed by David Holloway. The requested information was left blank. A total of four (4) copies of pesticide application records were included with the email. In reviewing the application records for PII information, I found the following PII questions unanswered. (see below):

6. Business license #
16. Site surveyed before application for nearby sensitive crops or sites
29. EPA Reg. No(s)
34. Name of mixer/loader
36. Name of spray cleaner
38. For applications of Enlist Duo, Engenia, FeXapan or Xtendimax herbicides:
 - a. Date DriftWatch website checked for sensitive crops/sites
 - b. Date registrant’s website checked for approved tank mixes

9. I emailed Mr. Holloway concerning the lack of information of the PII. Specifically I requested the applicator complete and sign a PII form for each application concerning this complaint.

10. On October 3, 2018, I received another email from Mr. Holloway. The email had an attachment for the pesticide application records and PIIs. As before, I reviewed the attachments and found unanswered questions on the PII. (see below)

6. Business license #
16. Site surveyed before application for nearby sensitive crops or sites
29. EPA Reg. No(s)
36. Name of spray cleaner
38. For applications of Enlist Duo, Engenia, FeXapan or Xtendimax herbicides:
 - a. Date DriftWatch website checked for sensitive crops/sites
 - b. Date registrant’s website checked for approved tank mixes

11. I made contact with applicator Jesse Kelich. He agreed to complete the PII. He told me his supervisor for the pesticide applications was Kirk Rutherford.
12. I received the completed PII from Mr. Kelich. According to the PII, all missing information from the previous PII was completed as required with the exception of the EPA product regulation numbers for the pesticide products Engenia, Zidua and Buccaneer Plus. I confirmed with OISC Licensing section Mr. Kelich and Mr. Rutherford attended the mandatory Dicamba training in 2018.
13. The label for Engenia (EPA #7969-345, active ingredient: dicamba) reads in part, *“Applicators must keep the following records for a period of two years; records must be generated within 14 days of application and a record must be kept for every individual application. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. The following information must be recorded and kept as required by Federal Pesticide Record Keeping Program, 7 CFR Part 110: EPA registration number”*.
14. After reviewing all information, Kirk Rutherford and Jesse Kelich are in violation for failure to record the EPA number of **Engenia**.



Kevin W. Gibson
Investigator

Date: November 9, 2018

Disposition: Kirk Rutherford and Jesse Kelich were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-4-1, for failure to keep all required restricted use pesticide application record elements. A civil penalty in the amount of \$25.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: December 12, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/1018

Complainant: Donald Edwards
1374 N 475 E
Columbus, Indiana 47203
812-343-1570

Respondent: Trico Farm Supply Co., Inc.
William Durham
Dalton Thompson
19541 E. 300 S.
Elizabethtown, Indiana 47232
812-579-5262

Licensed Business
Certified Supervisor
Registered Technician

1. On May 31, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his trees. He stated the drift could have come from one of three different farmers and this is a reoccurring problem. See case summaries 2017/0872, 2017/0828, 2018/0588 and 2018/1019.
2. On June 8, 2018, I went to Don Edwards' 25-acre tract of land located east of South 400 East and between Base Road and East 100 South in Columbus, Indiana. Mr. Edwards' property is surround by three (3) farmers. Mr. Edwards stated he has had problems with drift over the past several years. Mr. Edwards does not reside on the property; however, he stated he may develop the property at a later time.
3. On June 8, 2018, I observed leaf distortion, cupping, strapping, twisting, and drooping. Symptoms were observed throughout the property. See figures 1-2. I collected vegetation samples extending into Mr. Edwards' property from the west side. See site diagram. Other samples were collected for other cases. In addition, I collected a vegetation sample to be visually analyzed by Purdue Plant and Pest Diagnostic Lab (PPDL).



Figure 1-Ornamental tree



Figure 2-Distortion, droopy



Site Diagram

4. On June 11, 2018, PPDL reported the following:

Diagnosis and Recommendations

Host/Habitat	Mixed Plant material (unspecified)
List of Diagnosis/ID(s)	
Suspected for Herbicide injury; Exposure (Abiotic disorder)	

Final Report

Curled leaves and twisted petioles are indicative of injury from a growth regulator herbicide like 2,4-D or dicamba.

Joe Ikley
 Weed Science Program Specialist
 Purdue University
 e-mail - jikley@purdue.edu
 Office - (765) 496-2121

There was no evidence of disease on the sample.

Tom Creswell
creswell@purdue.edu

5. On June 11, 2018, I received a completed Pesticide Investigation Inquiry (PII) form from Dalton Thompson. Mr. Thompson documented that he made an application on May 17, 2018, using Halex GT (EPA Reg. #100-1282, active ingredients S-metolachlor, mesotrione, and glyphosate) and Atrazine 4L (EPA Reg. #11773-1, active ingredient atrazine). Mr. Thompson documented the wind was 0mph-5.5mph out of the north. The wind was blowing toward Mr. Edwards' property.
6. On September 20, 2018, OISC's Residue Lab reported the following:

Case #	2018/0588		Investigator				J. Kelley
Sample #	Sample Description	Amount of Analyte (ng/swab or ppb)					
		Matrix	Acetochlor	Atrazine	Mesotrione	Metribuzin	
2018-50-2034	SSNE-soil from NE target field	Soil	NA	NA	NA	NA	
2018-50-2035	VNE1-vegetation from NE target field	Vegetation	BDL	928*	11.7	BDL	
2018-50-2036	VNE2-vegetation 3 yds from target field NE	Vegetation	BDL	209	8.84	BDL	
2018-50-2037	VNE3-vegetation 56 yds from target field NE	Vegetation	BDL	56	4.38	BDL	
2018-50-2038	VNE4-vegetation 100 yds from target field NE	Vegetation	1.92	66.6	9.95	5.50	
2018-50-2039	SSs-soil from S target field	Soil	NA	NA	NA	NA	
2018-50-2040	VS1-vegetation from S target field	Vegetation	3.98	247	17.7	2.60	
2018-50-2041	VS2-vegetation 28 yds from target field S	Vegetation	BDL	140	10.8	BDL	
2018-50-2042	VS3-vegetation 46 yds from target field S	Vegetation	BDL	95.3	8.50	BDL	
2018-50-2043	VS4-vegetation 80 yds from target field S	Vegetation	2.51	82.6	7.58	BDL	
2018-50-2044	SSW-soil from W target field	Soil	NA	NA	NA	NA	
2018-50-2045	VW1-vegetation from W target field	Vegetation	BDL	802*	89.1	BDL	
2018-50-2046	VW2-vegetation 15 yds from target field W	Vegetation	BDL	566*	69.6	BDL	
2018-50-2047	VW3-vegetation 56 yds from target field W	Vegetation	BDL	253	21.8	BDL	
2018-50-2048	VW4-vegetation 100 yds from target field W	Vegetation	BDL	128	11.7	BDL	
2018-50-2049	CC-Comparative control	Vegetation	BDL	18.2	BDL	0.762	
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC *amount reported as minimum found due to concentration exceeded calibration curve range							
LOQ (ppb)	Vegetation		1	3	3	0.7	
Signature				Date	9/20/18		

7. Lab results show detections of Atrazine (Atrazine 4L) and Mesotrione (Halex GT) were found in a gradient from the northeast field application. In addition, with wind was out of the north blowing toward Mr. Edwards' property.
8. Label language for Atrazine 4L states in part, "*Do not apply when weather conditions favor drift from treated areas.*"
9. Label language for Halex GT states in part, "*Avoid drift onto adjacent crops.*"


Paul J. Kelley
Investigator

Date: October 19, 2018

Disposition: Certified Supervisor William Durham and Registered Technician Dalton Thompson were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed for this violation. Consideration was given to the fact a restricted use pesticide was involved.


George N. Saxton
Compliance Officer

Draft Date: November 29, 2018
Final Date: January 11, 2019

CASE SUMMARY

Case #2018/1021

Complainant: Doug Ransom
7707 Amanda Lane
West Lafayette, Indiana 47906
765-426-4247

Respondent: Steven J Clark
5123 N 600 W
Williamsport, Indiana 47993
765-585-1028
Private Applicator

1. On July 6, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans. He stated his exposure symptoms may have come from multiple farms.
2. On July 10, 2018, I met with the complainant to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC. The complainant advised me that he believed his non-DT beans had been damaged by an application made to a nearby DT soybean field.
3. During my on-site investigation I did the following:
 - a) Looked for and did not observe another potential dicamba application made in the area adjacent to the impacted site.
 - b) Observed and photographed what I believed to be fairly uniform dicamba exposure symptoms (figure 1) throughout the complainant's non-target, non-DT soybean field (figure 2) located to the north and east of the target field. The target field and the complainant's non-target field were separated by a county road and vegetative roadside areas totaling forty-eight (48) feet (figure 3) north to south and a tree line/fencerow eighty-four (84) feet east to west (figure 4) .
 - c) Collected soybean plant samples from impacted areas of the complainant's non-target soybean field for visual analysis by the Purdue Plant and Pest Diagnostic Lab (PPDDL).
 - d) Collected samples for chemical analysis by the OISC Pesticide Residue Laboratory from the following areas:
 - i) Impacted soybean plants from complainant's non-target soybean fields;
 - ii) Soil sample from target field
 - iii) Weed vegetation from the target field
 - e) Made a diagram/map of the investigation site, depicting locations of relevant fields, sample collection, roads, structures, and other landmarks (figure 5).
4. On July 25, 2018, I collected written records from the applicator Mr. Clark. There were three separate applications that took place near the complainant's non-DT beans by Mr. Clark. The written records and statements addressed the below items as follows (2018/1021):
 - a) Application date & time: June 16, 2018 from 10:00am to 10:45am
 - b) Target field: soybean field to the south and west of complainant's soybean fields;

- c) Pesticides: Engenia (dicamba) EPA Reg. #7969-345; Section Three (clethodim) EPA Reg. #66330-414-1381; Zidua (pyroxasulfone) EPA Reg. #7969-338;
- d) Application rate: 12.8 oz. per acre Engenia; 4 oz. per acre Section Three; 1 oz. per acre Zidua
- e) Adjuvants: Class Act Rideon, AG 16098, Superb;
- f) Nozzles: ULD 120-06
- g) Boom height: 24 Inches
- h) Ground speed: 13 mph
- i) Winds: 7 mph from the north;
- j) Applicator: Steven Clark;
- k) Certified supervisor: not applicable;
- l) Left a 110' untreated buffer next to non-target site: 20 feet tree line
- m) Checked registrant's web site before application: No
- n) Checked Field Watch before application: Yes June 16, 2018
- o) Surveyed application site before application: Yes

5. I searched wind data from www.weatherunderground.com for zip code 47993 in Williamsport, IN for the reported date and time of the application. The results of that search indicated that wind speed and direction during the application were as follows.

As recorded at Purdue University 6-8 mph Variable South Southeast

9:54 AM	79 ° F	71 ° F	77 %	SSE	8 mph
10:54 AM	83 ° F	73 ° F	72 %	VAR	6 mph

Purdue University Wind Data 25 Miles East

As recorded at Watseka, IL 6-12 mph South and South Southwest

8:55 AM	79 ° F	69 ° F	69 %	S	6 mph	0 mph
9:15 AM	81 ° F	70 ° F	69 %	SSW	8 mph	0 mph
9:35 AM	82 ° F	71 ° F	69 %	SSW	10 mph	0 mph
9:55 AM	82 ° F	71 ° F	69 %	SSW	12 mph	0 mph

Watsseka Wind Data 26 Miles Northwest

As recorded at Hoopston, IL 6-9 mph South and South Southwest

8:55 AM	79 ° F	75 ° F	87 %	S	9 mph	0 mph
9:15 AM	80 ° F	75 ° F	86 %	S	7 mph	0 mph
9:35 AM	81 ° F	74 ° F	80 %	SSW	6 mph	0 mph
9:55 AM	82 ° F	74 ° F	77 %	SSW	8 mph	0 mph

Hoopston, IL Wind Data 10 Miles West

6. The wind would have been blowing in the direction of the complainant's beans.

7. The report from the PPPDL states, “Cupped/puckered leaves with parallel leaf veins and cream or tan-colored leaf tips are indicative of injury from dicamba.”

8. The report from OISC residue lab states:

Case #	2018/0748/1021/1022		Investigator	K. Neal			
Sample #	Sample Description	Amount of Analyte (ppb)					
		Matrix	Pyroxasulfone	Dicamba	DCSA	5-OH Dicamba	Clethodim/ Clethodim Sulfone/ Clethodim Sulfoxide
2018-22-1063	Soil sample Clark target field East	Soil	N/A	N/A	N/A	N/A	N/A
2018-22-1064	Weed veg Clark target field East	Vegetation	6.62	*2080	5.15	3.03	0.371/5.83/20.8
2018-22-1065	Ransom Liberty beans East 10 yards in	Vegetation	BDL	5.69	BQL	BDL	BDL
2018-22-1066	Ransom Liberty beans East 50 yards in	Vegetation	BDL	5.65	BQL	BDL	BDL
2018-22-1067	Ransom Liberty beans East 100 yards in	Vegetation	BDL	4.23	BDL	BDL	BDL
2018-22-1068	Ransom Liberty beans West 10 yards in	Vegetation	BDL	3.72	BQL	BDL	BDL
2018-22-1069	Ransom Liberty beans West 50 yards in	Vegetation	BDL	2.35	BDL	BDL	BDL
2018-22-1070	Ransom Liberty beans West 100 yards in	Vegetation	BDL	1.78	BDL	BDL	BDL
2018-22-1071	Soil sample Clark target field West	Soil	N/A	N/A	N/A	N/A	N/A
2018-22-1072	Weed veg Clark target field West	Vegetation	562	*21600	28.5	7.84	0.264/129/246
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC *Minimum concentration reported due to amount exceeding calibration curve range.							
LOQ (ppb)	Vegetation	0.7	1	0.4	2	0.3/0.3/0.3	
Signature				Date	10/02/18		



Figure One



Figure Two



Figure Three



Figure Four

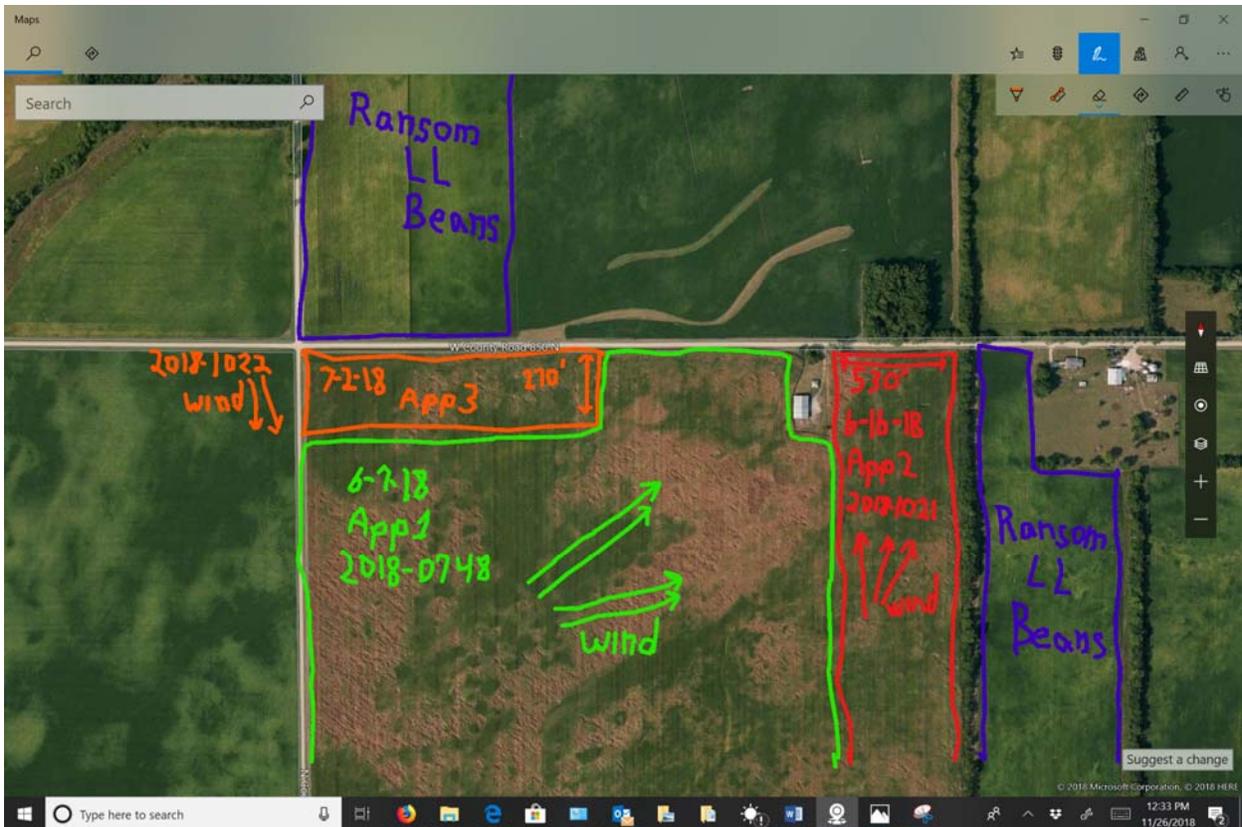
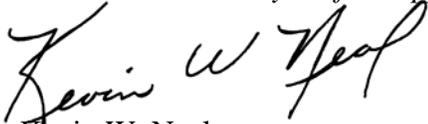


Figure Five

9. The label for Engenia states, “*DO NOT apply when wind is blowing in the direction of neighboring sensitive crops.*” And, *DO NOT tank mix any product with Engenia unless: You check the list of EPA approved products for use with Engenia at www.engeniatankmix.com no more than 7 days before applying Engenia.*”



Kevin W. Neal
Investigator

Date: November 26, 2018

Disposition: Steven J Clark was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding the checking of the registrant’s website.

Steven J Clark was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift management. A civil penalty in the amount of \$100.00 was assessed for this violation.

Based on the evidence collected in this investigation, it has been determined that you failed to comply with the drift management restrictions on the label for the herbicide Engenia. It should also be noted that OISC was not able to determine whether the herbicide moved off-target as the result of drift, application into an inversion, or volatilization at some point after the application, and was not able to clearly identify the source of the off-target movement.



George N. Saxton
Compliance Officer

Draft Date: December 12, 2018
Final Date: January 28, 2019

CASE SUMMARY

Case #2018/1029

Complainant: Noel Hunt
7955 E 1200 S
Amboy, Indiana 46911
765-251-0775

Respondent: Co-Alliance Herbst
Bruce Horner
Ty Breedlove
Matt Van Osdell
2655 S 600 W
Marion, Indiana 46953
765-384-4306

Licensed Business
Certified Applicator/Sales
Registered Technician/Applicator
Manager

1. On June 26, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On June 26, 2018, I contacted the Complainant, Noel Hunt, via telephone. Mr. Hunt informed me that he had noticed what looked to be damage from dicamba on his Liberty Soybeans. Mr. Hunt informed me that he does not use any dicamba products, and that he applied Round-Up, Intensity, and Liberty. Mr. Hunt stated that Ted Oiler farms a field just to the south of his and he believes he sprays dicamba. Mr. Hunt stated that the symptoms in his field are just across the road from Mr. Oyler's field.
3. On June 26, 2018, I was able to contact Mr. Oyler via telephone. I informed Mr. Oyler of the complaint that was received from Mr. Hunt. Mr. Oyler stated that he did not make a dicamba application. Mr. Oyler also informed me that he does not have dicamba tolerant soybeans in his field and that in the same area where Mr. Hunt has symptoms of dicamba injury, he also has symptoms of dicamba injury. Mr. Oyler informed me that Co-Alliance Herbst has made a dicamba application in the adjacent field. Mr. Oyler did not wish to make a complaint with OISC, but stated rather that he has already contacted Co-Alliance and informed them of the damage to his field.
4. On June 28, 2018, Agent Joe Becovitz and I met with the complainant Noel Hunt at his residence. Mr. Hunt was able to show me on a map exactly where his field was and where the symptoms were. The field is located on the north side of 400 north, ¼ mile west of State Road 13 in Grant County. I explained to Mr. Hunt that I would be collecting soil and vegetation samples to take to the lab for analysis. Agent Joe Becovitz and I then drove to Mr. Hunts Field.
5. During the on-site investigation I did the following:
 - a. Observed and photographed cupping and puckering of the soybean leaves in the complainant's field. I also observed that there was a visual gradient pattern of the cupping and puckering. The most severe injury was closest to 400 north. The injury lessened as I walked through the field to the north. These symptoms are associated with growth regulator type herbicides such as dicamba.

- b. Looked for other potential sources of an application of growth regulator herbicides but did not see any given the localized area of the growth regulator injury.
- c. Collected a composite soil sample from the target soybean field. Collected gradient vegetation samples and a soil sample from Mr. Hunt's soybean field. Also collected a soil sample from Mr. Oyler's field (See Fig. 3). The residue samples were submitted to the OISC Residue Laboratory for analysis.
- d. Collected samples of injured soybean plants from Mr. Hunt's field for assessment by the Purdue Plant & Pest Diagnostic Laboratory (PPDL).



Fig. 1



Fig. 2

- Fig. 1-2) Mr. Hunt's non-DT soybeans with cupped/puckered leaves and discolored leaf tips.

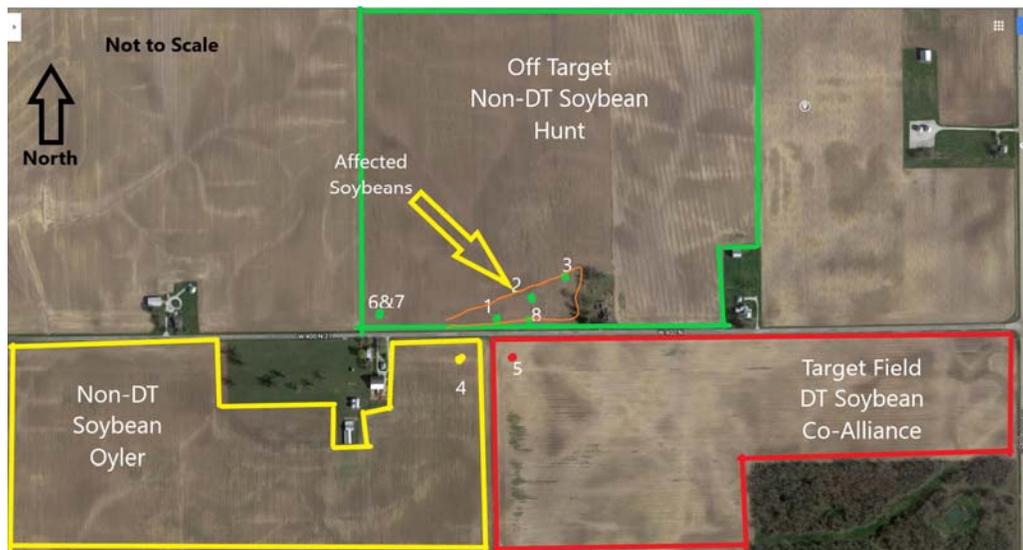


Fig. 3

- Fig. 3) is an aerial diagram of the fields including approximate field property lines and where soil and vegetation samples were taken from.
6. After my on-site investigation, I met with Matt Van Osdell, the manager of Co-Alliance Herbst Branch in Marion, Indiana. I presented my OISC credentials and informed Mr. Van Osdell of the complaint. Mr. Van Osdell and I were able to look at an aerial map and confirm that Co-Alliance does make pesticide applications to the target field in question. Mr. Van Osdell stated that Co-Alliance made two pesticide applications to the field due to unfavorable weather conditions. I then presented Mr. Van Osdell a pesticide investigation inquiry (PII), and instructed him to complete the form for both pesticide applications and return to me within 15 days.

7. On June 13, 2018, I received two completed Pesticide Investigation Inquiry from Mr. Van Osdell. The PII for the June 16, 2018 pesticide application indicates the following:

- a. Registered Technician: Ty Breedlove
- b. Application Date and Time: June 16, 2018, 11:15am to 11:52am
- c. Pesticide Applied: Roundup PowerMax, EPA Reg. #524-549, Glyphosate Xtendimax, EPA Reg. #524-617, Dicamba, 22oz/acre Warrant, EPA Reg. #524-591, Acetochlor
- d. Adjuvants: Astonish, Capsule
- e. Target Field Location and Size: 35 acres, west half of 61 acres
- f. Pre- or Post- Emergent Application: Post
- g. Wind Direction at Boom Height: Start- SW, End- SW
- h. Wind Speed at Boom Height: Start- 7mph, End- 7mph
- i. Nozzles: Wilger UR 110-08
- j. Boom Height: 24 Inches
- k. Downwind Buffer: 21 acres to east
- l. Checked Registrants Website before application: Yes, June 16, 2018
- m. Checked DriftWatch before application: Yes, June 16, 2018
- n. Dicamba Mandatory Training Attended: Yes, June 16, 2018

8. The first pesticide application made by Co-Alliance will be reported in case 2018/0690.

9. The PPPDL report stated: *Cupped/puckered leaves with parallel leaf veins and cream or tan colored leaf tips are indicative of injury from dicamba.*

10. The OISC Residue Laboratory analyzed the soil and vegetation samples collected from the fields for Acetochlor and reported the following:

Case #	2018/1029 (2018/0690)		Investigator		G. Creason	
Sample #	Sample Description	Amount of Analyte (ng/swab or ppb)				
		Matrix	Acetochlor	Dicamba	5-OH Dicamba	DCSA
2018-37-8001	Nontarget field vegetation soybean sample Noel Hunt most impacted	Vegetation	BQL	Did not test	Did not test	Did not test
2018-37-8002	Nontarget field vegetation soybean sample Noel Hunt somewhat impacted	Vegetation	3.08	Did not test	Did not test	Did not test
2018-37-8003	Nontarget field vegetation soybean sample Noel Hunt least	Vegetation	BQL	Did not test	Did not test	Did not test
2018-37-8004	Ted Oyler nontarget field soil sample Grab sample	Soil	BQL	Did not test	Did not test	Did not test
2018-37-8005	Target field Grab sample soil	Soil	328	Did not test	Did not test	Did not test
2018-37-8006	Comparative control Grab sample soil	Soil	63.2	Did not test	Did not test	Did not test
2018-37-8007	Comparative control vegetation sample	Vegetation	6.61	Did not test	Did not test	Did not test
2018-37-8008	Nontarget field Grab sample soil	Soil	256	Did not test	Did not test	Did not test
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; LOQ=Limit of Quantitation; BDL=Below detection Limits: this analyte was not detected using the standard analytical methods employed by OISC; BQL=Below quantification limits: this analyte was detected however the amount was lower than the quantification limit established using the standard analytical methods employed by OISC						
LOQ (ppb)	Soil		7	Did not test	Did not test	Did not test
LOQ	Vegetation		3	Did not test	Did not test	Did not test
Signature				Date	11/20/18	

11. The OISC residue laboratory analysis detected acetochlor in the vegetation and soil samples from Mr. Hunt's non-DT soybean field. I contacted Mr. Hunt via telephone and he confirmed that he did not make any pesticide applications with products containing acetochlor.
12. The wind data along with Mr. Breedlove's statements indicate during both of the applications the wind direction was out of the south west towards Mr. Hunt's field. The label for *Xtendimax*, EPA Reg. #524-617, Active Ingredient = dicamba states, "**DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**" The Label for *Warrant*, EPA Reg. #524-591, Active Ingredient = Acetochlor states "**Do not apply when wind conditions favor drift to non-target site**"
13. Based on the evidence collected in this investigation, it has been determined that Ty Breedlove failed to comply with the drift management restrictions on the label for the herbicide *Xtendimax*, EPA Reg. #524-617, Active Ingredient = dicamba. Mr. Breedlove also failed to comply with the Use Restrictions on the label for the herbicide *Warrant*, EPA Reg. #524-591, Active Ingredient = Acetochlor.



Garret A. Creason
Investigator

Date: December 6, 2018

Disposition: Bruce Horner and Ty Breedlove were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. A civil penalty in the amount of \$250.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: January 14, 2019
Final Date: February 18, 2019

CASE SUMMARY

Case #2018/1030

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
800-893-6637

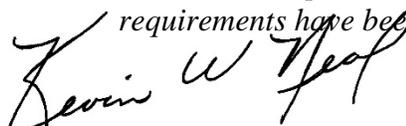
Respondent: Walker Ag Group
Stephanie Spiros Non-Licensed
Francois Lubbe Non-Licensed
Frederick Badenhorst Non-Licensed
27 E. Liberty Lane
Danville, IL 61832
217-443-3600

1. On August 2, 2018, I received information from Ms. Spiros with regard to an application of a Restricted Use Pesticide (RUP) Engenia Herbicide (EPA Reg. #769-345) active ingredient dicamba made near the non-dicamba tolerant soybeans of Mr. James Hawkins. (See case #2018/0804) The information was provided in the form of a Pesticide Investigation Inquiry (PII) as part of the 2018-0804 investigation of off target movement of dicamba.
2. In reviewing the records and cross-checking for required dicamba training, it came to my attention that Ms. Spiros reported she holds an Illinois private applicator license. OISC data base has no record of Ms. Spiros nor anyone else associated with Walker Ag Group aka Walker Place having any kind of a pesticide applicator credential in Indiana.
3. Records provided by Ms. Spiros indicate the Engenia was purchased in Illinois.
4. I contacted Ms. Spiros and requested copies of all RUP application records for those applications made in Indiana for 2018. These were to include any of the restricted use dicamba products as well as any other RUP applications made in Indiana by Walker Ag Group.
5. Through our conversations it became clear that RUP application records had not been completed within the thirty (30) days of application as required by 355 IAC 4-4-1.5 Private applicator use records. *“The records to be maintained under this section shall be recorded by the thirtieth day from the date of application and be kept and maintained for a period of two (2) years.”*
6. On December 7, 2018, records of RUP applications made by Walker Ag Group were delivered to OISC. Those records indicate the following RUP applications were made in Indiana.

DATE	TIME	LOCATION	APPLICATOR	PESTICIDE
June 4, 2018	5:00pm-7:45pm	Fountain County 9-21N-7W	Badenhorst	Engenia 7969-345
June 5, 2018	6:30am-8:00am	Montgomery Co. 28-20N-5W	Lubbe	Engenia 7969-345
June 5, 2018	8:30am-11:30am	Fountain County 29-21N-7W	Lubbe	Engenia 7969-345
June 16, 2018	N/A	Vermillion Co. Gessie	Badenhorst	Atrazine 1381-158
June 16, 2018	N/A	Vermillion Co. I&I	Badenhorst	Atrazine 1381-158
June 24, 2018	8:30am-11:30am	Newton County 21-27N-R8W	Lubbe	Engenia 7969-345
June 25, 2018	6:05am-7:45am	Newton County 26-27N-8W	Badenhorst	Engenia 7969-345
June 25, 2018	6:15am-7:15am	Jasper County 31-27N-7W	Lubbe	Engenia 7969-345
June 25, 2018	7:10pm-8:55pm	Benton County 34-26N-7W	Badenhorst	Engenia 7969-345
June 25, 2018	7:10pm-8:30pm	Benton County 11-25N-7W	Lubbe	Engenia 7969-345
July 9, 2018	9:30am-11:30am	Vermillion Co. Fitch/Evans Bottoms	Badenhorst	Engenia 7969-345
July 10, 2018	8:30am-9:00am	Vermillion Co. S34T-19N-R9W	Lubbe	Engenia 7969-345
July 11, 2018	6:45am-8:15am	Vermillion Co. S32T-18N-R9W	Lubbe	Engenia 7969-345

7. In total it would appear that Walker Ag Group made thirteen (13) illegal RUP applications in Indiana; and not all of the required RUP application records and information were provided or recorded within the required thirty (30) days of application.

8. An Action Order was issued to Stephanie Spiros and Walker Ag Group to “*Stop making restricted use pesticide applications until such time that all certification and licensing requirements have been completed.*”

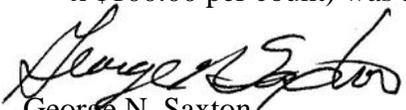


Kevin W. Neal
Investigator

Date: December 10, 2018

Disposition: Walker Ag Group was warned for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-4-1, for failure to follow the rule regarding restricted use pesticide application records.

Walker Ag Group was cited for thirteen (13) counts of violation of section 65(10) of the Indiana Pesticide Use and Application Law for using a restricted use pesticide without having an applicator who is licensed or permitted. A civil penalty in the amount of \$1,300.00 (13 counts x \$100.00 per count) was assessed.



George N. Saxton
Compliance Officer

Draft Date: December 21, 2018

Final Date: February 4, 2019