

A Summary of Cases

September 17, 2018

- 2016/0580 On, March 3, 2016, the complainant contacted the Compliance Officer of the Indiana State Chemist (OISC) to report a former employee, Travis Boruff, was making pesticide applications for hire on his own as a registered technician/exam taker. Travis Boruff was allegedly terminated February 8, 2016. The location where Mr. Boruff allegedly applied pesticides for hire was the Moxie Properties, 934 E. Mulberry St., Kokomo, Indiana.
- Disposition:** Travis Boruff was cited for 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. A civil penalty in the amount of \$250.00 was assessed for this violation. As of June 25, 2018, Travis Boruff had not paid the civil penalty. The case was forwarded to collections.
- 2016/0625 On, March 25, 2016, Leo Reed, Certification and Licensing Manager for the Office of Indiana State Chemist (OISC), contacted George Saxton, the Compliance Officer for OISC, to report a potential for unlicensed pesticide applications as well as potential fraud in making a bid for those pesticide applications.
- Disposition:**
- A. Thomas Irvin Borchers was cited for twelve (12) 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 \$3,000.00 (12 counts x \$250.00 per count) was assessed.
- B. Thomas Irvin Borchers was cited for violation of section 65(18) of the Indiana Pesticide Use and Application Law for intentionally altering a duly issued license, permit, registration, or certification. Thomas Irvin Borchers' pesticide certification was revoked.
- C. OISC received a letter from Tom Borchers dated March 24, 2017. In the letter Mr. Borchers asked that the fine be reduced or he be allowed to make payments.
- D. On April 6, 2017, Mr. Borchers contacted OISC and stated he was not able to pay the civil penalty. He requested that he be allowed to pay \$100.00 per month; first payment due June 1, 2017 and subsequent payments due the first of each consecutive month until the civil penalty was paid in full. He stated that sometime this year he should be able to pay the entire balance.
- E. As of August 8, 2018, Mr. Borchers had only made one payment of \$100.00 leaving a balance of \$2,900.00 still owed to OISC. The case was forwarded to the Indiana Attorney General for collection.
- 2016/0915 On June 14, 2016, I pulled in to a commercial property off Ditch Road in Hamilton County behind a Carmel Turf Care truck. I spoke to the driver of the truck, Ryan Buster, who had just finished making for-hire lawn applications for the day. I also spoke with owners Jeff and Renee Kelich, who explained that the business had just moved into the building.

A. George Wimmer 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 provide on-site supervision to a non-certified individual. A civil penalty in the amount of \$500.00 (4 counts x \$125.00 per count) was assessed. However, the civil penalty was reduced to \$250.00. Consideration was given to the fact George Wimmer cooperated during the investigation, corrective action was taken and no restricted use pesticides were involved.

B. On June 4, 2018, "Renee" of Carmel Turf Care called and stated that Carmel Turf Care is no longer in business and she would send in the civil penalty immediately.

2016/1049 On July 19, 2016, the Certification & Licensing section of the OISC contacted the Compliance Officer to report Dogwood Glen Golf Course failed to renew the pesticide license of Michelle Smith and requested a pesticide application records check of the course.

Disposition:

A. Dogwood Glen Golf Course and Ernie Smiley are cited for eight (8) counts of violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 357 IAC 1-15-2, for applying a pesticide to a golf course without having a certified applicator. A civil penalty in the amount of \$2,000.00 (8 counts X \$250.00) was assessed. However, the civil penalty was reduced to \$700.00 due to the fact Mr. Smiley cooperated during the investigation; had no previous history; and corrective action was taken.

B. On April 18, 2018, Ernie Smiley called and stated that this was just an over-sight and that he had experience in treating golf courses so there would be no potential for damage. The civil penalty was further reduced to \$400.00.

C. As of June 21, 2018, Dogwood Glen Golf Course still had not paid the negotiated civil penalty. The full civil penalty in the amount of \$2,000.00 was reinstated.

D. As of August 13, 2018, Dogwood Glen Golf Course had not paid the civil penalty. The case was forwarded to the Indiana Attorney General for collection.

2016/1084 On July 28, 2016, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report aerial agricultural pesticide drift to her property.

Disposition:

A. Black Star LLC and Jacob McGoldrick were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift to a non-target site. A civil penalty in the amount of \$250.00 was assessed for this violation.

B. On July 25, 2018, Charles McClendon of Black Star LLC called and advised Jacob McGoldrick was killed in a plane crash July 14, 2017. Mr. McClendon also stated that he thought Mr. McGoldrick just leased a helicopter from them and was not working under their employ.

2016/1103 On August 1, 2016, Marilyn Cherrett spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC), regarding a pesticide disposal complaint. Mrs. Cherrett stated she observed a helicopter hover over her organic hay field and dump hundreds of gallons of water.

Disposition:

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

B. On July 25, 2018, Charles McClendon of Black Star LLC called and advised Jacob McGoldrick was killed in a plane crash July 14, 2017. Mr. McClendon also stated that he thought Mr. McGoldrick just leased a helicopter from them and was not working under their employ.

2016/1260 On September 26, 2016, the complainant contacted the Office of Indiana State Chemist (OISC) to report former employee, Sean Brown, is continuing to service customers without a business license.

Disposition: Sean Brown was cited for 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. A civil penalty in the amount of \$250.00 was assessed for this violation. Sean Brown was cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law for failure to follow an Order of the state chemist by not producing required documentation. A civil penalty in the amount of \$250.00 was assessed for this violation. As of August 8, 2018, Sean Brown had not paid the civil penalty. The case was forwarded to collections.

2017/0213 On June 28, 2017, I was performing a routine business inspection on GE Facility Solutions in Valparaiso, Indiana. I spoke to the office manager Alex Bravo who said they go by the business name Lawn Maxx of NWI. I asked to speak to the owner Yusef Mohmed but he was not there at the time. I issued a Notice of Inspection and **Action Order** to Alex Bravo stating that the business Lawn Maxx of NWI does not have a business license with the Office of the Indiana State Chemist and cannot operate as a pesticide/fertilizer business until they obtain the proper credentials.

Disposition: Yusef Mohmed and Lawn Maxx of NWI were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law for failure to comply with a lawful order of the state chemist or board. A civil penalty in the amount of \$250.00 was assessed for this violation. Yusef Mohmed and Lawn Maxx of NWI were cited eighteen (18) counts of violation of section 65(9) of the Indiana Pesticide Use and Application Law for applying pesticides for hire as Lawn Maxx of NWI without having an Indiana pesticide business license. A civil penalty in the amount of \$4,500.00 (18 counts x \$250.00 per count) was assessed. Consideration was given to the fact Mr. Mohmed did not cooperate during the investigation and corrective action was not taken. As of June 25, 2018, Yusef Mohmed and Lawn Maxx of NWI had not paid the civil penalty. The case was forwarded to the Indiana Attorney General for collection.

2017/0421 On February 17, 2017, I conducted a routine marketplace inspection at Ted's Pet & Feed at 2112 US Hwy 41, Schererville, Indiana 43675. I advised the assistant manager that I would be performing a routine marketplace inspection at her facility. During my

inspection, I performed a product check on a product making pesticidal claims made by Tropiclean.

Disposition: Tropiclean was cited for seven (7) counts of violation of section 57(1) of the Indiana Pesticide Registration Law for distributing pesticide products in 2016 and 2017 that were not registered in Indiana. A civil penalty in the amount of \$1,750.00 (7 counts x \$250.00 per count) was assessed.

2017/0427 On February 24, 2017, Indiana State Department of Agriculture forwarded an email to the Compliance Officer of the Office of Indiana State Chemist (OISC) to report possible unlicensed right-of-way pesticide applications in the Gary area by Energy Group. It was reported that Energy Group was hired by NIPSCO to spray stumps and they were using unlicensed applicators. OISC database indicates John Dix is a certified applicator for Energy Group but there were no registered technicians listed.

Disposition: Energy Group, Inc. was cited for twenty (20) counts of violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-2-3, for failure to provide on-site supervision to a non-certified individual. A civil penalty in the amount of \$2,500.00 (20 counts x \$125.00 per count) was assessed. However, the civil penalty was reduced to \$1,875.00. Consideration was given to the fact Energy Group, Inc. cooperated during the investigation.

2017/0771 On May 18, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to her pasture where her goats graze.

Disposition: Brian Huffer 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 his first violation of similar nature. Consideration was also given to the fact a restricted use pesticide was involved.

2017/0888 On June 16, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his Canadian hemlock.

Disposition: Pat Phegley and Helena Chemical were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift and violation of the atrazine setbacks. A civil penalty in the amount of \$250.00 was assessed to Helena Chemical. Consideration was given to the fact a restricted use pesticide was involved.

2017/0898 On June 19, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his soybeans.

Disposition: Toby Daugherty was cited for violation of section 65(2) of the Indiana Pesticide Use & 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 a restricted use pesticide was involved.

2017/0936 On June 28, 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: Tony Walton and White River Co-op were warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding checking of sensitive crop registration before making an application. Tony Walton and White River Co-op 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 by applying in calm winds. A civil penalty in the amount of \$250.00 was assessed for this violation.

2017/0951 On June 30, 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. He stated this is the second time this year this has happened.

Disposition: Jeffrey E. Smith 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 registrant's website before application. Jeffrey E. Smith was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for applying Engenia when the wind is between 10 to 15 miles per hour and blowing toward neighboring sensitive crops. A civil penalty in the amount of \$100.00 was assessed for this violation.

2017/0952 On July 1, 2017, the Complainant, John Mathis, contacted the Compliance Officer of the Indiana State Chemist (OISC) to report an agriculture spray drift to his son. Mr. Mathis stated in his complaint that he was outside with his son in their yard/driveway area and Mr. Mathis saw a tractor and sprayer across the street from them at approximately 10:00 am CST. Mr. Mathis stated that the applicator had to have seen them standing in the driveway because it is only about 50 yards from where they were.

Disposition: Owen D. Gudeman 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 his first violation of similar nature and no restricted use pesticides were involved. Consideration was also given to the fact there was potential for human harm.

2017/0985 On July 10, 2017, the Office of Indiana State Chemist (OISC) received a complaint regarding pesticide drift. The complainant, Mike Rohlman, stated approximately one month ago an application was made to the farm field that is adjacent to his property.

Within one week after the application, Mr. Rohlman noticed his arborvitaes were injured on the side that faced the farm field. Mr. Rohlman stated he believed the application made to the farm field has injured or killed his arborvitaes.

Disposition: Zaccerie Slater was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label language regarding off-target drift/application. 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 there was environmental harm.

2017/1008 On July 13, 2017, the Office of Indiana State Chemist (OISC) received a complaint regarding dicamba drift. The complainant, Dean Craig, stated he first noticed injury on his soybeans on July 11 and he believed the application of dicamba was made about two weeks prior to the injury.

Disposition: Craig Gamble 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, a sensitive crop registry and surveying the site before application. Craig Gamble 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.

2017/1034 On July 17, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his soybeans. He stated he did not know what chemical was applied to the neighboring cornfield that allegedly drifted to his soybeans.

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

2017/1035 On July 17, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural herbicide drift to his soybeans. Mr. Holscher's complaint stated: □

"I witnessed Osbourne's spraying Dicamba under windy conditions (20+mph). The winds were strong from the south ahead of a sagging cold front approaching from the north. My adjoining field of liberty link soybeans received major damage and pending large yield loss. Spraying under those conditions was irresponsible and blatantly wrong, demonstrating the lack of judgement necessary to apply damaging chemicals and fulfill their licensing agreement. You should remove the authority for them or their business entity to apply herbicides and administer an appropriate monetary penalty. Additionally, you should approach Monsanto about the violation of their license agreement. The State of Indiana should never have approved the massive employment of a highly volatile chemical with major reactive properties. With Monsanto's market share, it was an obvious formula for disaster. I have a right to plant

crops of my choosing and not incur damage from an invasive chemical company's product. Indiana is suppose to be protecting that right, not degrading it. If the state persists in employment of Dicamba, companies should place significant bonds with the Indiana Chemist Office to be administered directly to impugned parties. Large bonds should be required from the see companies, chemical companies and commercial applicators (have had damage from contaminated sprayers). The bottom line is Monsanto needed a quick fix for its roundup resistance problem to salvage its sale to a Non-American company. It appears it spent enough money to accomplish its goal, to everyone's detriment."

Disposition: Dan Osborne 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 sensitive crop registry before application. Dan Osborne 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.

2017/1041 On July 17, 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: Tony Herd 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 sensitive crop registry before application. Tony Herd 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 in winds less than three miles per hour. A civil penalty in the amount of \$100.00 was assessed for this violation.

2017/1043 On July 18, 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: Greg Comer 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.

2017/1072 On July 24, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to her and her property. She stated this was from an aerial pesticide application. She also stated she had clothing for the investigator with the understanding the clothing would not be returned to her.

Disposition: Andrew Briggs 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 \$500.00 was assessed for this violation. Consideration was

given to the fact this was his second violation of similar nature (see 2017/1053) and there was drift to a person.

2017/1085 On July 26, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report he had contracted Picasso Lawn & Landscape to only fertilize his lawn. He stated his lawn is now completely dead and suspects Picasso had an herbicide in the tank as well.

Disposition: Preston White and Picasso Lawn & Landscape were cited for violation of section 65(5) of the Indiana Pesticide Use and Application Law for operating in a careless and negligent manner. A civil penalty in the amount of \$250.00 was assessed for this violation.

2017/1093 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. He stated North Central Co-op was spraying another one of his fields when they drifted to his Liberty Link soybeans. He also stated they sprayed his beans but failed to clean out the tank and got dicamba on his non-tolerant beans.

Disposition: Tim Depoy 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 before application. Tim Depoy was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application in 'calm' winds. A civil penalty in the amount of \$250.00 was assessed for this violation.

2017/1104 On July 31, 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: Tony Herd 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 and sensitive crop registries before application. Tony Herd was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application in winds over 15 miles per hour. A civil penalty in the amount of \$100.00 was assessed for this violation.

2017/1106 On July 31, 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: Clayton Williams 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 sensitive crop registry before application.

Clayton Williams 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.

2017/1159 On August 23, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans. He stated he learned that Dennis Rodgers applied the dicamba on June 22 and July 4.

Disposition: Dennis Rodgers was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label language regarding the checking of a sensitive crop registry before application. Dennis Rodgers was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for drift management violation for applying when wind was blowing towards a neighboring crop. A civil penalty in the amount of \$100.00 was assessed for this violation.

2017/1160 On August 31, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans.

Disposition: Dennis Rodgers 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. Dennis Rodgers 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.

2017/1173 On August 3, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to her beans.

Disposition: Dale Rhoton 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 wind is blowing toward a neighboring specialty crop. A civil penalty in the amount of \$100.00 was assessed for this violation.

2017/1181 On August 7, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans.

Disposition: Kevin Ramseyer 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. Kevin Ramseyer 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 wind is blowing towards a susceptible crop. A civil penalty in the amount of \$100.00 was assessed for this violation.

2017/1189 On August 9, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report aerial pesticide application drift to her person. She stated she contacted Crop Production Services (CPS) and was told the pesticides involved were Endigo insecticide and Priaxor fungicide. She also stated she had a shirt she would surrender for analysis with the understanding the shirt would not be returned to her.

Disposition: Nathan N. Shrock 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 this was his first violation of similar nature. Consideration was also given to the fact there was potential for human harm.

2017/1191 On August 10, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans.

Disposition: Spencer Pfister 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 before application. Spencer Pfister 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 sensitive crop. A civil penalty in the amount of \$100.00 was assessed for this violation.

2017/1194 On August 10, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans.

Disposition: Kevin Sudhoff 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 winds are blowing toward susceptible crops. A civil penalty in the amount of \$100.00 was assessed for this violation.

2017/1199 On August 11, 2017, Jan Zurcher spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a dicamba drift complaint. Mr. Zurcher stated he believed the dicamba application was made approximately three weeks ago.

Disposition: Kevin Schafer 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.

2017/1219 On August 16, 2017, Leah Boits of IDEM contacted George Saxton, Compliance Officer with the Office of Indiana State Chemist regarding a fish kill in Bachelor Creek located in Wabash Indiana. Ms. Boits stated based on the condition of the fish, it appeared the

kill may have happened prior without being detected. She stated the kill appeared to begin at an outlet conveying Spinner Ditch just east of SR15 extending west almost to the county line. She advised Indiana Conservation Officer Ben Duecker had also been contacted regarding this fish kill.

Disposition: William Powell was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. Consideration was given to the fact this was his first violation of similar nature. William Powell was cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-2-2, for applying pesticides by aerial application without being certified. A civil penalty in the amount of \$250.00 was assessed for this violation.

2017/1222 On August 23, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans. He stated he learned that Dennis Rodgers applied the dicamba on June 22 and July 4.

Disposition: Dennis Rodgers 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. Dennis Rodgers 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 both the Engenia and Buccaneer Plus labels. A civil penalty in the amount of \$100.00 was assessed for this violation.

2017/1249 On September 11, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans. County Extension Agent, Larry Temple, advised complainant to contact OISC regarding suspected dicamba exposure symptoms.

Disposition: Jeff Knittle 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. Jeff Knittle 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.

2017/1260 On September 18, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his blackberries. He stated that about a month ago his blackberries on the south side of his field started to look bad. He stated he did not know anything about 'dicamba' until he spoke with an expert in Minnesota. He then learned CPS made an application of dicamba to the field just south of his berries.

Disposition: Thomas Orman, Thad Shidler and Crop Production Services (CPS) were 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. Thomas Orman, Thad Shidler and Crop Production Services (CPS) 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 by applying when winds were blowing towards a sensitive crop. A civil penalty in the amount of \$250.00 was assessed for this violation.

2017/1310 On February 27, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba drift to his beans. He stated he tried to work it out with the other farmer but that is no longer an option. He stated he learned that he lost approximately 15 bushel to the acre in 39 acres. It was explained to him no residue samples could be taken but OISC could verify that the design standards on the label(s) were followed.

Disposition: Dalton Sloan 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 before application. Dalton Sloan 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 sensitive specialty crop. A civil penalty in the amount of \$100.00 was assessed for this violation.

2017/1311 On August 10, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans.

Disposition: Gary Fisher was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to check a sensitive crop registry before application. Gary Fisher was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for applying when winds were blowing towards a sensitive crop. A civil penalty in the amount of \$250.00 was assessed for this violation.

2018/0004 On October 4, 2017, I went into T & J Landscape Services to perform a routine business inspection. Prior to entering the business, I verified with the Office of the Indiana State Chemist (OISC) Licensing Division this location or business name did not have an OISC license associated with it. I spoke to Jim Propst the Snow & Lawn Maintenance Manager. Mr. Propst stated that he had an Illinois license but was not aware that he needed to apply for the Indiana license. I issued Mr. Propst an **ACTION ORDER** stating the following, *"Stop all fertilizer applications until business and applicators are licensed with OISC."* Mr. Propst stated he would send me his application records. I also gave Mr. Propst the contact information for the OISC Licensing Division.

Disposition: T & J Landscape Services was cited for sixty-seven (67) counts of violation of section 65(9) of the Indiana Pesticide Use and Application Law for applying pesticides or products regulated under IC 15-16-5 (fertilizer) without having a pesticide business license. A civil penalty in the amount of \$16,750.00 (67 counts x \$250.00 per count) was

assessed. However, the civil penalty was reduced to \$1,675.00. Consideration was given to the fact T & J Landscape Services cooperated during the investigation; corrective action was taken; there were no previous violations of similar nature; no potential for harm and a good-faith effort to comply.

2018/0134 On December 7, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report a suspected miss-application of a pesticide dust for the control of bed bugs. She stated the dust is all over her refrigerator and stove as well.

Disposition: Thomas Rabatin and Pest Control Authority Inc. were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law for failure to properly supervise a non-licensed employee. A civil penalty in the amount of \$125.00 was assessed for this violation.

2018/0143 On December 14, 2017, I performed a routine marketplace inspection at Wabash Hardware located at 1351 N Cass St 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 Registration Division for a label review. The label review was finalized on January 22, 2018 and revealed the following:

- a. Only active ingredients are listed. Listing does not include substrate that the essential oils are embedded in/on or any other inert ingredients;
- b. "BITING INSECTS" is too generic

B. Sterling International Inc. was cited for one (1) count of 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. Sterling International Inc. was cited for violation of section 57(5) of the Indiana Pesticide Registration Law for distributing a pesticide product that was misbranded. A civil penalty in the amount of \$250.00 was assessed for this violation.

2018/0157 On February 1, 2018, I was assisting with a follow up for Investigator Rosch on her case #2017/1234 when I became aware of an unlicensed/non-credentialed person, Mr. Haurt, making restricted use pesticide applications for Crossroad Farms.

Disposition: Pine Village Service Center was cited for twelve (12) counts of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 357 IAC 1-3-2, for distributing a restricted use pesticide to a non-certified user. A civil penalty in the amount of \$3,000.00 (12 counts x \$250.00 per count) was assessed. By rule, the civil penalty assessed for this violation may not be mitigated by the Office of Indiana State Chemist.

2018/0176 On February 14, 2018, I performed a routine marketplace inspection at True Value located in the Village Shopping Center in Zionsville, Indiana. I spoke with the Store Manager Joe Hollingsworth and informed him of the process of the marketplace inspection.

Disposition:

A. On February 19, 2018, this information was forwarded to the Registration Section for label review.

B. Enviro Protection Industries Company, Inc. was cited for two (2) counts (for 2017 and 2018) of 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 \$500.00 (2 counts x \$250.00 per count) was assessed. However, the civil penalty was held in abeyance and not imposed provided Enviro Protection Industries Company, Inc. properly registers the pesticide product within thirty (30) days from receipt of this notice.

C. Enviro Protection Industries Company, Inc. sent a letter informing us they would not be registering the pesticide product and that the product was being pulled by the distributor. Enviro Protection Industries Company, Inc. paid the \$500.00 civil penalty.

2018/0199 On February 22, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report his home was inspected for wood destroying organisms prior to closing and the inspector missed “thousands of dollars in damage”.

Disposition: Mark Maupin was 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. Consideration was given to the fact this was his second violation of similar nature. See case number 2014/0198.

2018/0381 On April 27, 2018, I observed two men loading spreading equipment back into their pickup truck parked in front of 1930 Mulsanne Drive in Zionsville, Indiana.

Disposition: Stavros Lawn Service was cited for twelve (12) counts of violation of section 65(9) of the Indiana Pesticide Use and Application Law for applying pesticides/fertilizer for hire without having an Indiana pesticide business license. A civil penalty in the amount of \$3,000.00 (12 counts x \$250.00 per count) was assessed. However, the civil penalty was reduced to \$2,250.00. Consideration was given to the fact Stavros Lawn Service cooperated during the investigation.

CASE SUMMARY

Case #2016/0580

Complainant: Chuck Dreibelbis
Arrow Services, Inc.
1815 N. Michigan Street
Plymouth, Indiana 46563
574-286-9796

Respondent: Travis W. Boruff
4546 S. 450 W.
Russiaville, Indiana 46173
765-883-1244

Unlicensed Applicator

Moxie Properties
Gina Key
1808 Dogwood Drive
Kokomo, Indiana 47902
765-480-5772

1. On, March 3, 2016, the complainant contacted the Compliance Officer of the Indiana State Chemist (OISC) to report a former employee, Travis Boruff, was making pesticide applications for hire on his own as a registered technician/exam taker. Travis Boruff was allegedly terminated February 8, 2016. The location where Mr. Boruff allegedly applied pesticides for hire was the Moxie Properties, 934 E. Mulberry St., Kokomo, Indiana.
2. On March 11, 2016, I spoke to and issued a Notice of Inspection (NOI) for the complainant Chuck Dreibelbis. Mr. Dreibelbis told me he had received information from an unknown source that Travis Boruff had been making pesticide applications for his sister Heather Moore of Moxie Properties in Kokomo, Indiana. Mr. Dreibelbis also said Travis once worked for his company (Arrow Services). When Mr. Dreibelbis discovered Travis receiving money from making pesticide applications on his own time while employed by Arrow Services, Mr. Dreibelbis fired Travis. Therefore, he believed Travis had been making pesticide applications without a proper pesticide application license.
3. I contacted Jill Davis of the OISC Licensing Section. She confirmed Travis Boruff was a Registered Technician with Arrow Services until February 10, 2016. Arrow Services requested Travis no longer be associated with Arrow Services.
4. I contacted Gina Key of Moxie Properties. She told me Heather Moore was a former employee of Moxie Properties. She knew Travis Boruff was Heather's brother. She checked their maintenance records and found an invoice with Travis Boruff's name on it for a bedbug treatment at 309 Harrison Street. (See invoice copy below)

Travis Boruff

4546 S 450 W
Russiaville, IN 46979

DATE: 10/10/2015
INVOICE #: 370
FOR:

Bill To:
Black Walnut Trust
PO Box 201364
Austin Tx 78720-1364

LOCATION	DESCRIPTION	AMOUNT
BLACKWALNUTT / 309HARRISON	CAMEXP - Common Area Mainte... bed bug Treatment	\$150.00
		TOTAL \$150.00

Make all checks payable to **Travis Boruff**

If you have any questions concerning this invoice, please contact **Travis Boruff**

THANK YOU FOR YOUR BUSINESS!

5. The invoice indicated a bedbug treatment had been made on October 10, 2015, at 309 Harrison for \$150.00. Checks were to be made payable to Travis Boruff.
6. I attempted to make contact with the residents at 934 E. Mulberry Street in Kokomo since the original complaint concerned a pesticide application made at that address. I found the residence to be vacant. A sign on the window indicated the property to be managed by Shallenberger Realty at 919 S. Union Street in Kokomo. I spoke to Keil Shallenberger of Shallenberger Realty. He told me his company never hired anyone to make a pesticide application at 934 E. Mulberry Street in 2015 because the residence had been vacant for at least two years.
7. I spoke to Heather Moore (219-384-0287). She confirmed she had hired her brother Travis Boruff to make a pesticide application to the property at 309 E. Harrison Street in Kokomo, Indiana. She told me she worked for Moxie Properties at the time. She said he made no other pesticide applications for her or Moxie Properties.
8. I spoke to Travis Boruff. He admitted he made a pesticide application at 309 E. Harrison Street on October 10, 2015. He also admitted he was working for Arrow Services at the time of the application but did not do the application for Arrow Services. He also told me he received money for making the pesticide application. He said he made the pesticide application with **JT Eaton "Kills Bedbugs, Fleas, Brown Dog Ticks" (EPA #45385-28-56; active ingredient: pyrethrins, piperonyl butoxide)**. Travis denied he made any other "after hours" pesticide applications while working for Arrow Services. He also denied he made any pesticide applications since leaving Arrow Services.
9. In summary, Travis Boruff made a pesticide application for hire without a pesticide applicator's license and a pesticide business license.




Kevin W. Gibson
Investigator

Date: March 22, 2016

Disposition: Travis Boruff was cited for 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. A civil penalty in the amount of \$250.00 was assessed for this violation.

As of June 25, 2018, Travis Boruff had not paid the civil penalty. The case was forwarded to collections.


George N. Saxton
Compliance Officer

Draft Date: February 28, 2017
Final Date: June 25, 2018

CASE SUMMARY

Case #2016/0625

Complainant: Linda Freeman
Vanderburgh County Surveyor's Office
1 NW ML King Jr. Blvd
Room 325
Evansville, Indiana 47708
812-435-5211

Respondent:	Shideler Spray Service	Expired business
	Thomas Irvin Borchers	License expired 2015
	Kevin Ryan Jefferis	License expired 2015
	John Richard Hawk	License expired 2012
	13505 N. State Road 3	
	PO Box 494	
	Eaton, Indiana 47338	
	765-744-4452	


1. On, March 25, 2016, Leo Reed, Certification and Licensing Manager for the Office of Indiana State Chemist (OISC), contacted George Saxton, the Compliance Officer for OISC, to report a potential for unlicensed pesticide applications as well as potential fraud in making a bid for those pesticide applications.
2. According to Mr. Reed, the complainant, Linda Freeman of the Vanderburgh County Surveyor's Office, asked him to verify the licensing status of the respondents, Hawk, Jefferis and Borchers, after they had submitted copies of their pesticide applicator licenses to her. Mr. Reed stated the OISC database indicated John Richard Hawk's license expired in 2012; and Thomas Irvin Borchers' and Kevin Ryan Jefferis' licenses both expired in 2015. Mr. Reed further stated the copies of the three licenses he had received from Ms. Freeman for these three individuals indicated an expiration date of 12/31/2016. In addition, the copy of Mr. Borchers' license indicated he was certified in Category 1 (agriculture), when in fact, his Category 1 certification expired in 2012. Upon further examination, Mr. Reed stated the 2016 license dates on the copies had a different font than what was printed at OISC, suggesting the expiration dates had been altered.
3. On March 29, 2016, Bob Brewer, Investigator for OISC, and I went to the above-referenced business location and found no one there and the doors locked. We then spoke with Mary Borchers, Tom Borchers' mother, who lives at the house on the property. Mrs. Borchers reported the company had downsized to just two applicators and they no longer made agricultural applications. She provided a phone number for her son.
4. I then called Mr. Borchers and informed him of the licensing issue. He agreed to meet with us at his home. Upon arrival, I completed a Notice of Inspection and asked about the bidding

process for the ditches in Vanderburgh County. Mr. Borchers indicated there was a considerable amount of paperwork required for each ditch bid and, as the bidding deadline approached, he realized he had not renewed the pesticide business license nor the applicator licenses for himself and Mr. Jefferis; Mr. Hawk no longer worked for the company. Mr. Borchers admitted he signed and submitted the bid packet prior to becoming licensed for 2016. The bid packet included the photocopy referenced by Mr. Reed on which the licenses associated with Shideler Spray Service had been altered to depict expiration dates of "12/31/2016". We discussed the licensing procedure and I informed him that he cannot make for-hire pesticide applications, nor can he bid, advertise or otherwise proclaim to be in the business, without active licenses. I issued Mr. Borchers a Stop Action Order, which instructed him not to make applications, or bid jobs until his licenses were active. He indicated he recently sent the renewal and the fees to the OISC. Mr. Borchers later provided a typed statement indicating he "*included a false license*" in submitting the bid packet.

5. According to the information provided by Ms. Freeman, Mr. Borchers' bid to make twenty-two (22) pesticide applications (including sterilization, foliar spray and dormant spray) as follows:

Aiken	4 applications 4 different bids or one bid to make 4 applications?
Eastside Urban-S ½	3 applications
Harper	2 applications
Kolb	2 applications
Barnett	1 application
Cypress Dale Maddox	1 application
Eagle Slough	2 applications
Edmond	1 application
Keil	2 applications
Sonntag Stevens	2 applications
Henry	1 application
Eastside Urban-N ½	1 application

6. The business license and applicator licenses for Mr. Borchers and Mr. Jefferis were subsequently issued with enforcement for the violations pending.


Andrew R. Roth
Investigator

Date: June 27, 2016

Disposition:

- A. Thomas Irvin Borchers was cited for twelve (12) 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 \$3,000.00 (12 counts x \$250.00 per count) was assessed.
- B. Thomas Irvin Borchers was cited for violation of section 65(18) of the Indiana Pesticide Use and Application Law for intentionally altering a duly issued license, permit, registration, or certification. Thomas Irvin Borchers' pesticide certification was revoked.

- C. OISC received a letter from Tom Borchers dated March 24, 2017. In the letter Mr. Borchers asked that the fine be reduced or he be allowed to make payments.
- D. On April 6, 2017, Mr. Borchers contacted OISC and stated he was not able to pay the civil penalty. He requested that he be allowed to pay \$100.00 per month; first payment due June 1, 2017 and subsequent payments due the first of each consecutive month until the civil penalty was paid in full. He stated that sometime this year he should be able to pay the entire balance.
- E. As of August 8, 2018, Mr. Borchers had only made one payment of \$100.00 leaving a balance of \$2,900.00 still owed to OISC. The case was forwarded to the Indiana Attorney General for collection.



George N. Saxton
Compliance Officer

Draft Date: February 28, 2017
Final Date: August 8, 2018


CASE SUMMARY

Case #2016/0915

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

Respondent:	George Wimmer	Certified Applicator
	Ryan Buster	Not Licensed
	Carmel Turf Care	Licensed Business
	1016 3rd Ave. SW, Suite 108	
	Carmel, IN 46032	
	317-758-5722	

1. On June 14, 2016, I pulled in to a commercial property off Ditch Road in Hamilton County behind a Carmel Turf Care truck. I spoke to the driver of the truck, Ryan Buster, who had just finished making for-hire lawn applications for the day. I also spoke with owners Jeff and Renee Kelich, who explained that the business had just moved into the building.
2. I initiated a licensing inspection to determine if all applicators were licensed. I was informed that George Wimmer was the certified applicator for the company and Mr. Kelich and Mr. Buster were registered technicians. Mrs. Kelich reported that registered technician, Austin Taylor, who had been making most of the applications, recently left the company. As a result of his departure, Mr. Buster, who was a registered technician with another company, was hired to replace him.
3. A check of the OISC database indicated Mr. Buster's license was not renewed for 2016 by The Greenskeeper, his previous employer, and the OISC had not received an application for a license for Mr. Buster from Carmel Turf Care. I informed Mrs. Kelich of my findings and explained that Mr. Buster could not make for-hire pesticide applications without the on-site supervision of a certified applicator until he obtained a license. Mrs. Kelich provided application records indicating Mr. Buster made applications on June 6, 7, 9 and 14, of 2016.
4. An application for credential and a check were overnighted to the OISC and received on June 16, 2016. Mr. Buster was subsequently issued an applicator license.


Andrew R. Roth
Investigator

Date: September 23, 2016

Disposition:

- A. George Wimmer 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 provide on-site supervision to a non-certified individual. A civil penalty in the amount of \$500.00 (4 counts x \$125.00 per count) was assessed. However, the civil penalty was reduced to \$250.00. Consideration was given to the fact George Wimmer cooperated during the investigation, corrective action was taken and no restricted use pesticides were involved.
- B. On June 4, 2018, "Renee" of Carmel Turf Care called and stated that Carmel Turf Care is no longer in business and she would send in the civil penalty immediately.


George N. Saxton
Compliance Officer

Draft Date: November 29, 2016
Final Date: June 25, 2018

CASE SUMMARY

Case #2016/1049

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

Respondent: Dogwood Glen Golf Course
Ernie Smiley
753 E. CR 900 S.
Warren, IN 46792
260-375-4752

1. On July 19, 2016, the Certification & Licensing section of the OISC contacted the Compliance Officer to report Dogwood Glen Golf Course failed to renew the pesticide license of Michelle Smith and requested a pesticide application records check of the course.
2. On July 25, 2016, I went to Dogwood Glen Golf Course and was told by the pro shop attendant that Ms. Smith was no longer employed by the golf course and that Ernie Smiley was the current superintendent. Mr. Smiley was not there but I was given his phone number.
3. On July 25, 2016, I spoke with Mr. Smiley and informed him that the golf course did not have a certified applicator. Mr. Smiley indicated he had been in the industry for 18 years, working under certified applicators at several other golf courses. He indicated he passed the Core exam but was unable to pass the category 3b (turf) exam. A check of OISC's database indicated Mr. Smiley did not have a registered technician credential. Mr. Smiley confirmed he made pesticide applications to the golf course in 2016. I later met Mr. Smiley at the golf course and issued a Stop Action Order instructing him to cease making applications until he was licensed or the golf course secured a certified applicator to supervise his applications. We discussed the options for coming into compliance, which included having a certified applicator from his former employer, Sycamore Hills Golf Club, obtain a secondary license to be able to supervise his applications.
4. Mr. Smiley provided copies of the application program for the golf course, which included fertilizer and pesticide applications completed at the golf course in 2016. According to the records provided, Mr. Smiley made pesticide applications to the golf course without the supervision of a certified applicator on the following dates:

May 15, 19 and 22
June 5, 16 and 19
July 3 and 7
5. I then spoke with Scott Winling, a certified applicator at Sycamore Hills, and informed him of the situation at Dogwood Glen. He confirmed that Mr. Smiley had worked with him at the

golf course and indicated he would work to get him into compliance at Dogwood Glen. Mr. Winling later called and stated he would apply for a second license so he could supervise applications at Dogwood Glen. He indicated he planned to go to Dogwood Glen and work with Mr. Smiley to ensure he was properly trained and comfortable operating the equipment.

6. On September 28, 2016, I was notified by the Certification & Licensing section that Mr. Winling was issued a secondary license to be the certified applicator at Dogwood Glen.



Andrew R. Roth
Investigator

Date: December 13, 2016

Disposition:

- A. Dogwood Glen Golf Course and Ernie Smiley are cited for eight (8) counts of violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 357 IAC 1-15-2, for applying a pesticide to a golf course without having a certified applicator. A civil penalty in the amount of \$2,000.00 (8 counts X \$250.00) was assessed. However, the civil penalty was reduced to \$700.00 due to the fact Mr. Smiley cooperated during the investigation; had no previous history; and corrective action was taken.
- B. On April 18, 2018, Ernie Smiley called and stated that this was just an over-sight and that he had experience in treating golf courses so there would be no potential for damage. The civil penalty was further reduced to \$400.00.
- C. As of June 21, 2018, Dogwood Glen Golf Course still had not paid the negotiated civil penalty. The full civil penalty in the amount of \$2,000.00 was reinstated.
- D. As of August 13, 2018, Dogwood Glen Golf Course had not paid the civil penalty. The case was forwarded to the Indiana Attorney General for collection.



George N. Saxton
Compliance Officer

Draft Date: June 21, 2018
Final Date: August 13, 2018

CASE SUMMARY

Case #2016/1084

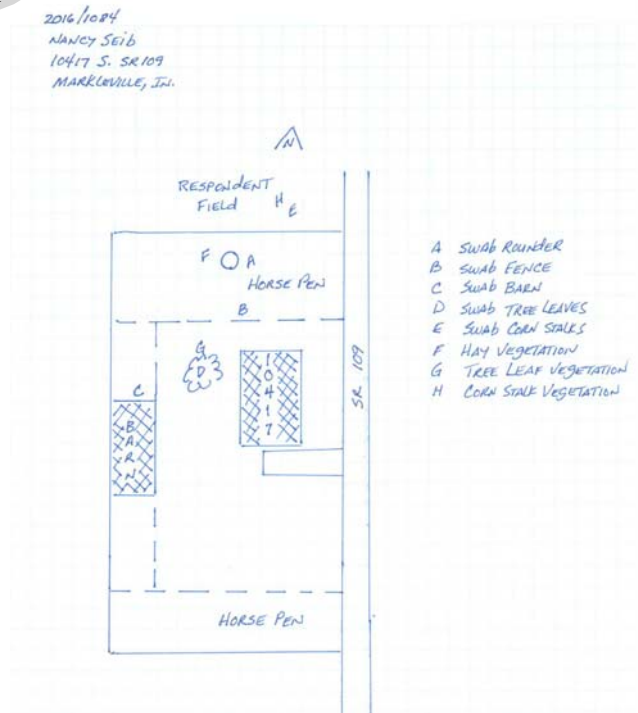
Complainant: Nancy Seib
10417 S. SR 109
Markleville, Indiana 46056
765-617-9992

Respondent: Jacob McGoldrick
Black Star LLC
148 Runway Road, Lot F
Picayune, Mississippi 39466
601-273-0215

Licensed Applicator
Licensed Business

1. On July 28, 2016, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report aerial agricultural pesticide drift to her property.
2. On August 2, 2016, I met with and issued a Notice of Inspection (NOI) to the complainant Nancy Seib. She explained an aerial applicator made a spray application to the cornfield, which borders her property. She said she was concerned for her horses that are kept in a pen next to the cornfield. She said she was also concerning the hay made have been contaminated from the spray. I explained I would take environmental samples for lab analysis.
3. I obtained the following environmental samples for submission to the OISC Residue Lab for analysis (see diagram below):

- (A) swab hay rounder (2016561097)
- (B) swab fence (2016561098)
- (C) swab barn (2016561099)
- (D) swab tree leaves (2016561100)
- (E) swab corn stalks (2016561101)
- (F) hay vegetation (2016561102)
- (G) tree leaves (2016561103)
- (H) corn stalk vegetation (2016561104)

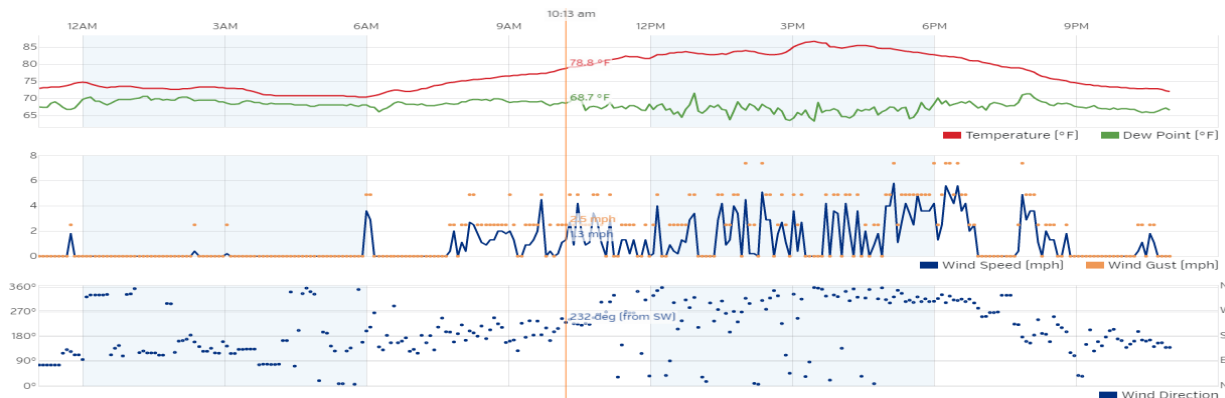


4. I spoke to Robert Lawyer who owns the farm field where the aerial application was made. He told me he contracted Crop Production Services (9417 N. U.S. 35, Williamsburg, Indiana) to make the

pesticide application. When I contacted Crop Production Services, Lucas Wright told me they supplied the product for Black Star who made the aerial application. He agreed to send the pesticide application records.

5. According to the Black Star pesticide application records, pilot Jacob McGoldrick applied **Headline AMP (EPA #7969-291; active ingredient: pyraclostrobin, metconazole)** on July 28, 2016 between 10:15 and 2:15 pm. He recorded the wind at 2 miles per hour in a northeasterly direction.
6. Weather data information from Weather Underground, www.wunderground.com, indicated the wind was variable out of the west at speeds of 0-4.5 mph with gust to 4.9 mph. See graph below.

Weather History Graph
July 28, 2016



Weather History for Pendleton, IN [KINPENDL6]

7. I received the following information from the OISC Residue Lab:

Case #	2016-1084	Investigator	K. Gibson	
Sample #	Sample Description	Amount of Analytes		
		Matrix	Pyraclostrobin	Metconazole
2016-561096	BLANK Swab	Swab	BDL	BDL
2016-561097	Swab Hay Rounder	Swab	333 ng/swab	295 ng/swab
2016-561098	Swab Fence	Swab	16.7 ng/swab	2.7 ng/swab
2016-561099	Swab Barn	Swab	49.4 ng/swab	26.4 ng/swab
2016-561100	Swab Tree Leaves	Swab	239 ng/swab	58.6 ng/swab
2016-561101	Swab Corn Stalks	Swab	1910 ng/swab**	784 ng/swab**
2016-561102	Hay Vegetation	Vegetation	14.1 ng/g*	17.1 ng/g
2016-561103	Tree Leaves	Vegetation	94.8 ng/g*	49.9 ng/g
2016-561104	Corn Stalks	Vegetation	975 ng/g**	810 ng/g**
*Minimum detection due to low recovery.				
** Minimum detection due to concentration exceeded calibration curve range.				
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	Vegetation	3 ppb		0.3 ppb
LOQ	Swab	1 ng/swab		0.2 ng/swab

8. The label language for **Headline AMP** reads in part, “*Do Not apply when conditions favor drift from target area*” and “*Do Not apply under circumstances where possible drift to endangered species, unprotected persons, to food, forage, or other plantings that might be damaged, or crops thereof rendered unfit for sale, use or consumption can occur.*”



Kevin W. Gibson
Investigator

Date: November 23, 2016

Disposition:

- A. Black Star LLC and Jacob McGoldrick were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift to a non-target site. A civil penalty in the amount of \$250.00 was assessed for this violation.
- B. On July 25, 2018, Charles McClendon of Black Star LLC called and advised Jacob McGoldrick was killed in a plane crash July 14, 2017. Mr. McClendon also stated that he thought Mr. McGoldrick just leased a helicopter from them and was not working under their employ.



George N. Saxton
Compliance Officer

Draft Date: July 25, 2018
Final Date: August 15, 2018

CASE SUMMARY

Case #2016/1103

Complainant: Marilyn Cherrett
712 N. CR 300 W.
New Castle, IN 47362
765-533-6565

Respondent:	Jake McGoldrick	Certified Applicator
	Black Star LLC	Licensed Business
	148 Runway Road, Lot F	
	Picayune, MS 39466	

1. On August 1, 2016, Marilyn Cherrett spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC), regarding a pesticide disposal complaint. Mrs. Cherrett stated she observed a helicopter hover over her organic hay field and dump hundreds of gallons of water.
2. On August 2, 2016, I spoke with Mrs. Cherrett who reported seeing a helicopter over the back portion of the hay field behind her house just before dark on Saturday, July 30, 2016. The helicopter reportedly discharged its liquid load before flying to the northeast and landing at Armstrong Farms. She indicated she saw a helicopter in the same area, over the back portion of her property, again on Monday August 1, 2016. Mrs. Cherrett stated two men came to her house that evening, the pilot, who had an Australian accent, and an applicator for Armstrong Farms. She stated the pilot took responsibility for releasing rinse water from the helicopter, but he said he did so over an overgrown buffer area, not over the hay field. Mrs. Cherrett indicated she was concerned pesticides got on the hay because it was certified organic several years ago. She did not know if it was currently considered organic, as she had not been able to get the original grower and the certification people to confirm it.
3. On August 4, 2016, I met with Mrs. Cherrett at her home. We walked to the back of the 14-acre hay field behind the house where she saw the helicopter hover. A 90-foot wide area of overgrown vegetation, including 12-foot willows and weeds, which was once reportedly a waterway, separated the hay field and a field farmed by Armstrong Farms. Mrs. Cherrett indicated again she believed the helicopter was over her hay field when the liquid load was released. I photographed the site and collected three vegetation samples, one from volunteer willows within the overgrown buffer area, one from grass at the edge of the hay field near the buffer area and one from clover approximately 50 feet into the hay field. The samples were submitted to the OISC Residue Lab for analysis.
4. I spoke with Neil Armstrong who reported that out-of-state pilot, Jake McGoldrick, was keeping his helicopter at his farm, across his field from the Cherrett property, on State Road 38 while he was spraying fungicide in the area. Mr. McGoldrick was reportedly directed to spray out rinse water on the Armstrong field when he was seen by Mrs. Cherrett. I later spoke with Armstrong Farms applicator, James Slonaker, who indicated Mrs. Cherrett came

to the farm after seeing Mr. McGoldrick spray out the rinse water and fly back to the farm on July 30, 2016. He indicated Mr. McGoldrick was not available, as he had gone back to South Carolina for a few days while his helicopter was being serviced.

5. I called and spoke with Mr. McGoldrick who reported that he ran water through the tank after spraying Quilt Xcel (EPA Reg. #100-1324), active ingredients azoxystrobin and propiconazole, on July 30, 2016. He indicated he went to the Armstrong field east of the Cherrett hay field to spray out the rinse water but saw the wide, overgrown area between the fields and decided to spray it out there. Mr. McGoldrick indicated he thought there would be no harm in spraying out the rinse water on the overgrown, non-crop area. He stated he went to the same area and took aerial photos of the site on August 1, 2016. He and Mr. Slonaker then went and talked to Mrs. Cherrett and showed her the photos of the area where he released the rinse water. He later forwarded me his aerial photos.



Fig.1 Overview of site (web photo)



Fig.2 Hay field & overgrown buffer



Fig.3 Pilot photo of disposal site

6. The OISC Residue Lab analyzed the samples for both active ingredients in Quilt Xcel:

Sample #	Sample Description	Amount of Analyte		
		Matrix	Azoxystrobin	Propiconazole
2016-474061	Hay field clover	Vegetation	430 ppb*	609 ppb*
2016-474062	Grass from field edge	Vegetation	562 ppb*	537 ppb*
2016-474063	Willow from buffer	Vegetation	1130 ppb*	1160 ppb*
*Minimum detection due to low analyte recovery. 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	Vegetation		3 ppb	0.6 ppb

7. Azoxystrobin and propiconazole were detected in all three samples, with the highest levels being from within the overgrown buffer area. The Quilt Xcel label reads, in part, **“Rinse spray tank thoroughly with clean water after each day’s use and dispose of pesticide rinsate by application to an already treated area.”**

Andrew R. Roth

Andrew R. Roth
Investigator

Date: January 23, 2017

Disposition:

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

B. On July 25, 2018, Charles McClendon of Black Star LLC called and advised Jacob McGoldrick was killed in a plane crash July 14, 2017. Mr. McClendon also stated that he thought Mr. McGoldrick just leased a helicopter from them and was not working under their employ.

A handwritten signature in black ink, appearing to read "George N. Saxton", written in a cursive style.

George N. Saxton
Compliance Officer

Draft Date: July 25, 2018
Final Date: August 15, 2018

CASE SUMMARY

Case #2016/1260

Complainant: Robert Lemmons
P.O. Box 17
Salem, Indiana 47167
812-883-2000

Respondent: Sean Brown
1023 E. 8th Street
Jeffersonville, Indiana 47130
812-786-2264

1. On September 26, 2016, the complainant contacted the Office of Indiana State Chemist (OISC) to report former employee, Sean Brown, is continuing to service customers without a business license.
2. On September 28, 2016, I went to Hammond and Lemmons Termite and Pest Control to obtain information on former employee Sean Brown. I was informed Mr. Brown was terminated on August 31, 2016. However, Mr. Brown had continued to service customers of Hammond and Lemmons Termite and Pest Control. I was informed that Mr. Brown was scheduled to service the residence of Christine Howell located at 492 N. Washington St., Scottsburg, Indiana later in the day.
3. On September 28, 2016, I went to the residence of Christine Howell. Mrs. Howell stated Mr. Brown was scheduled to perform a bedbug treatment. Mrs. Howell stated Mr. Brown had performed several pesticide treatments requiring cash payments each time. Mrs. Howell provided me with a statement regarding her involvement with Mr. Brown. Mrs. Howell stated Mr. Brown has her and her son, Thomas, leave while he sprays the house. Mrs. Howell stated Mr. Brown comes in the house with a pump sprayer with a liquid to treat for the bedbugs. I waited outside the Howell residence for Mr. Brown to perform the bedbug treatment. However, Mr. Brown contacted Mrs. Howell to re-schedule for the next week October 4, 2016.
4. On October 4, 2016, I waited across the street from the Howell's for Mr. Brown's bedbug treatment. Mr. Brown arrived, entered the Howell residence. See figures 1 & 2. A few minutes later, Christine and Thomas Howell left the property. Mr. Brown exited the residence, looked around, and proceeded to leave the property. See figures 3 & 4.



Figure 1-Mr. Brown arriving



Figure 2-Mr. Brown entering residence



Figure 3-Looking around after Howell's left



Figure 4-Mr. Brown leaving

5. I followed Mr. Brown to the parking lot of the Advanced Auto parts located at 48 N. Gardner St., Scottsburg, Indiana (47170). I identified myself and explained why I was contacting him (Mr. Brown). Mr. Brown stated he had not made an application at the Howell residence but had on previous dates. Mr. Brown admitted to being terminated from Hammond and Lemmons. Mr. Brown admitted to making for-hire pesticide applications without a license. Mr. Brown stated he had made other applications after his termination. Mr. Brown opened the trunk of his car showing me the pump sprayer and product he has used. See figure 5 & 6. Mr. Brown stated he applied Cimexa, (EPA Reg. #73079-12, active ingredient silicon dioxide) previously at the Howell residence.



Figure 5-Sprayer & product



Figure 6-Cimexa insecticide

6. I issued Mr. Brown an Action Order to stop advertising or making pesticide applications for hire until business location is credentialed by OISC. Furthermore, I instructed Mr. Brown to provide documentation of all for hire pesticide applications he performed without a license. I gave Mr. Brown until October 14, 2016, to comply. Mr. Brown has not provided the documentation as requested.
7. I returned to the Howell residence to speak with Christine and Thomas Howell. Mrs. Howell stated Mr. Brown told them to leave so he could perform a bedbug treatment. Mrs. Howell stated she requested a receipt for all services performed by Mr. Brown. Mr. Brown hand wrote a receipt for \$710.00 for bedbug treatment. See figure 7.

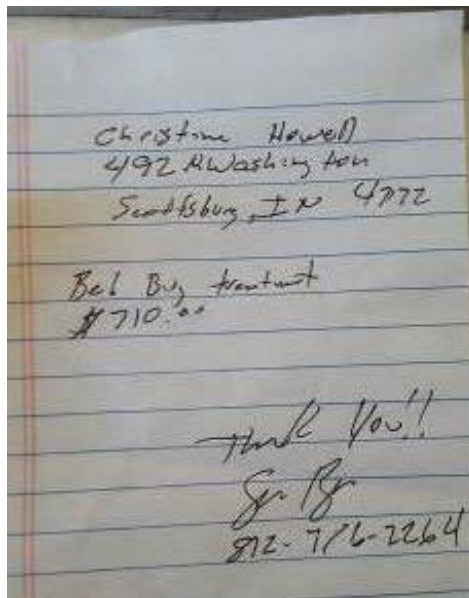


Figure7-Receipt

Paul J. Kelley III
Paul J. Kelley
Investigator

Date: November 7, 2016

Disposition: Sean Brown was cited for 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. A civil penalty in the amount of \$250.00 was assessed for this violation.

Sean Brown was cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law for failure to follow an Order of the state chemist by not producing required documentation. A civil penalty in the amount of \$250.00 was assessed for this violation.

As of August 8, 2018, Sean Brown had not paid the civil penalty. The case was forwarded to collections.

A handwritten signature in black ink, appearing to read "George N. Saxton", written in a cursive style.

George N. Saxton
Compliance Officer

Draft Date: January 18, 2017
Final Date: August 8, 2018

CASE SUMMARY

Case #2017/0213

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

Respondent: Yusef Mohmed
Lawn Maxx of NWI
P.O. Box 490 (1270 Horse Prairie Drive, Suite C)
Valparaiso, Indiana 46384
219-462-6299

Certified Applicator
Unlicensed Business

1. On June 28, 2017, I was performing a routine business inspection on GE Facility Solutions in Valparaiso, Indiana. I spoke to the office manager Alex Bravo who said they go by the business name Lawn Maxx of NWI. I asked to speak to the owner Yusef Mohmed but he was not there at the time. I issued a Notice of Inspection and **Action Order** to Alex Bravo stating that the business Lawn Maxx of NWI does not have a business license with the Office of the Indiana State Chemist and cannot operate as a pesticide/fertilizer business until they obtain the proper credentials.
2. On June 28, 2017, I received a phone call from Yusef Mohmed. Mr. Mohmed stated that he had not switched the business license over from GE Facility Solutions to Lawn Maxx of NWI yet and was going to do so. I told Mr. Mohmed to contact the OISC licensing division to complete the business application and that I needed records of the unlicensed applications sent as soon as possible.
3. On June 28, 2017, I received an email from the OISC licensing division specialist Jill Davis stating that Mr. Mohmed called her and he would be sending an application for a second business license under Lawn Maxx of NWI.
4. On July 13, 2017, I received the application records from Mr. Mohmed and after reviewing the application records, I documented 18 days of unlicensed applications:
 - In April 2017, Lawn Maxx of NWI made unlicensed applications on 7 days (14, 18, 20, 21, 22, 25, 26).
 - In May 2017, Lawn Maxx of NWI made unlicensed applications on 7 days (1, 3, 22, 23, 24, 26, 30).
 - In June 2017, Lawn Maxx of NWI made unlicensed applications on 4 days (1, 2, 7, 27).
5. On November 22, 2017, I confirmed with the OISC licensing division that they had not received the business license application for Lawn Maxx of NWI or anything from Mr. Mohmed.
6. On November 22, 2017, I spoke to Mr. Mohmed and told him that we had not received anything for his business license application for Lawn Maxx of NWI. Mr. Mohmed stated that he believed his wife was supposed to take care of all of that back in July. He said that he would contact her and resolve this issue immediately.
7. On January 10, 2018, I verified with the OISC Licensing division that Mr. Mohmed had not sent in his business license application for Lawn Maxx of NWI for 2017 like he stated he would. In addition, Mr.

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Toll-Free

866-869-6504

Email

billing@lawnmaxx.com
sales@lawnmaxx.com
service@lawnmaxx.com

Send us Mail

LawnMaxx of NWI
P.O. Box 490
Valparaiso, IN 46384

Contact LawnMaxx

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Corporate Office
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Valparaiso, IN 46384

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8. I performed a business entity search on the State of Indiana Business website and located a business with the following information:
- a. Lawn Maxx of NWI LLC.
 - b. Creation Date: 12/08/2014**
 - c. Principal Office Address: 2652 Lois Dr. Valparaiso, IN 46385
 - d. Registered Agent: Samantha Mohmed (same address)
9. It appears to be a violation in this case based on the following:
- Mr. Mohmed had violated the **Action Order** stating he was to “stop all fertilizer and pesticide applications until your business is properly registered with OISC, and advertising.” I spoke with Mr. Mohmed advising him of the **Action Order** and the ramifications if he did not comply.
 - Mr. Mohmed has continued to advertise for “Lawn Maxx of NWI” and has not sent in his license application like he stated he would to myself and also to OISC Licensing specialist Jill Davis.
 - As of June 2017, Lawn Maxx of NWI made 18 unlicensed applications.



Melissa D. Rosch
Investigator

Date: January 10, 2018

Disposition: Yusef Mohmed and Lawn Maxx of NWI were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law for failure to comply with a lawful order of the state chemist or board. A civil penalty in the amount of \$250.00 was assessed for this violation.

Yusef Mohmed and Lawn Maxx of NWI were cited eighteen (18) counts of violation of section 65(9) of the Indiana Pesticide Use and Application Law for applying pesticides for hire as Lawn Maxx of NWI without having an Indiana pesticide business license. A civil penalty in the amount of \$4,500.00 (18 counts x \$250.00 per count) was assessed. Consideration was given to the fact Mr. Mohmed did not cooperate during the investigation and corrective action was not taken.

As of June 25, 2018, Yusef Mohmed and Lawn Maxx of NWI had not paid the civil penalty. The case was forwarded to the Indiana Attorney General for collection.



George N. Saxton
Compliance Officer

Draft Date: February 21, 2018
Final Date: June 25, 2018

CASE SUMMARY

Case #2017/0421

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

Respondent: Tropiclean
P.O. Box 414
Wentzville, MO 63385
(800) 542-7387

Unregistered Products

1. On February 17, 2017, I conducted a routine marketplace inspection at Ted's Pet & Feed at 2112 US Hwy 41, Schererville, Indiana 43675. I advised the assistant manager that I would be performing a routine marketplace inspection at her facility. During my inspection, I performed a product check on a product making pesticidal claims made by Tropiclean.
2. After reviewing the product registrations in Indiana with product manager Ed White, it was determined that Tropiclean had never had any pesticide products registered in Indiana. I issued an Action Order to Ms. Woestman and advised her that these products were not registered in the State of Indiana and needed to be removed from the shelves until further notice from OISC. Ms. Woestman removed the Tropiclean products from the shelves and contacted her corporate office to retrieve all records for distribution of Tropiclean products to this store.
3. The products listed below were Tropiclean products available for sale at the Teds Pet & Feed location. These items were also sampled and taken to the OISC formulations lab:

Sample #	Brand	Product Description	Size (fl oz)
2017355239	Tropiclean	Tropiclean Natural Flea/Tick Home Spray	32 oz
2017355240	Tropiclean	Tropiclean Natural Flea/Tick Shampoo	20 oz
2017355241	Tropiclean	Tropiclean Natural Flea/Tick Shampoo Maximum Strength	20 oz
2017355242	Tropiclean	Tropiclean Natural Flea/Tick Carpet Powder	11 oz

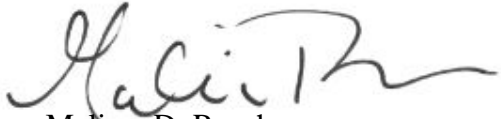
4. On March 1, 2017, I received an email with all of the products that had been sent to Teds Pet & Feed. After reviewing the records, it was determined
 - a. In the year 2016, Tropiclean had distributed five (5) unregistered products making pesticidal claims:
 1. Tropiclean Natural Flea/Tick Spray for Pets 16 oz
 2. Tropiclean Natural Flea/Tick Shampoo 20 oz

3. Tropiclean Natural Flea/Tick Home Spray 32 oz
4. Tropiclean Natural Flea/Tick Carpet Powder 11 oz
5. Tropiclean Natural Flea/Tick Shampoo Maximum Strength 20 oz

b. In the year 2017, Tropiclean had distributed two (2) unregistered products making pesticidal claims:

1. Tropiclean Natural Flea/Tick Spray for Pets 16 oz
2. Tropiclean Natural Flea/Tick Spray for Home 32 oz

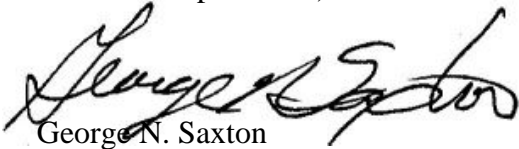
5. As of November 21, 2017, Tropiclean has not registered its products with the OISC.



Melissa D. Rosch
Investigator

Date: April 24, 2017

Disposition: Tropiclean was cited for seven (7) counts of violation of section 57(1) of the Indiana Pesticide Registration Law for distributing pesticide products in 2016 and 2017 that were not registered in Indiana. A civil penalty in the amount of \$1,750.00 (7 counts x \$250.00 per count) was assessed.



George N. Saxton
Compliance Officer

Draft Date: January 24, 2018

Final Date: June 20, 2018

CASE SUMMARY

Case #2017/0427

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

Respondent: Energy Group, Inc.
Matt Donnellon President
John M. Dix Certified Applicator
8837 Lyndon Street
Detroit, Michigan 48238
313-491-8411

1. On February 24, 2017, Indiana State Department of Agriculture forwarded an email to the Compliance Officer of the Office of Indiana State Chemist (OISC) to report possible unlicensed right-of-way pesticide applications in the Gary area by Energy Group. It was reported that Energy Group was hired by NIPSCO to spray stumps and they were using unlicensed applicators. OISC database indicates John Dix is a certified applicator for Energy Group but there were no registered technicians listed.
2. On March 6, 2017, I spoke to John Stout the Manager of Vegetation Management at NIPSCO who advised that currently Energy Group, Inc. was only supposed to be doing brush clearing. Mr. Stout stated Energy Group, Inc. is not supposed to be making pesticide applications because they do not have any certified applicators at this time. Mr. Stout stated the company G & T Site Services is contracted to do the pesticide applications to the stumps after the brush clearing has been completed by Energy Group, Inc. Mr. Stout provided copies of the Nipsco main manifest work orders and area maps of the locations for the brush clearing by Energy Group, Inc. Mr. Stout labeled the main manifests as follows:

1a. *"Past work completed in November 2016"* (Labeled by Mr. Stout)
Taney Substation
Circuit 6927
Date: September 16, 2016
Permit Numbers: 6927.1000.0-6927.1048.0

2a. Current work dated January 13, 2017 for Circuit 3456 Wolf Lake Substation

Mr. Stout labeled the following area maps:

1b. Trimming Complete-Should have no treatment on:
a. Circuit 6927 Gary LOA Sub Trans Overhead Circuit Footprint
b. Circuit 34-122 Gary LOA Sub Trans Overhead Circuit Footprint
c. Circuit 34-123 Gary LOA Overhead Circuit Footprint

2b. Current work on:
a. Wolf Lake Substation Circuit 3456
b. Circuit 12-410 Merrillville Sub

3b. G & T Recent Ap
a. Deep River Substation Circuit 12-205

3. On March 8, 2017, I went to the Wolf Lake area in Hammond to perform surveillance on Energy Group, Inc. I did not see any workers on the designated map (Wolf Lake Substation Circuit 3456) area for current work. The weather advisory for the area did indicate high winds.
4. On March 22, 2017, I arrived at the Independence Hill Substation (Circuit 6927 Gary LOA Sub Trans Overhead Circuit Footprint) to assess the properties listed as completed for trimming and should not have any pesticides applied to stumps/etc. by Mr. Stout. I did not observe any signs that a pesticide treatment was done to the substation area. This area was on the designated map for work that has only been trimmed and not for pesticides.



Figure 1

*Figure 1 is a photograph of the Independence Hill Substation located in Merrillville, Indiana

As I went further north on the circuit map route at Pole 384/283 I noticed some of the shrubs/trees in the area were cut down. I saw three stumps with a blueish color on them. This was just south of 7704 Taft Place, Merrillville, Indiana residential address in a brush/wooded area.



Figure 2



Figure 3



Figure 4



Figure 5

*Figures 2-5 are photographs of the tree stumps near 7704 Taft Place, Merrillville, Indiana utility pole number 384/283- Circuit 6927 Gary LOA Sub Trans Overhead Circuit Footprint.

5. On March 23, 2017, I emailed Mr. Stout to confirm the maps and main manifest work orders he provided were the accurate locations for Energy Group, Inc. shrub/tree clearing only. I asked the following,

"The map labeled "overhead circuit footprint" you had noted on the sticky note stating that the trimming is completed and should not have any treatments. The route on this shows from Taney substation to Independence Hill substation. Just double checking that is still correct. And if that still applies, when about would the last treatment have been-say last fall? Would you have dates/records for that or I can get them from whomever it was that did it if I need to.

Also, the Hammond map stated this was current work. Was this by both companies? And can you provide an address that they are currently at, assuming they are not at the first permit number on the pages that you gave me."

6. On March 23, 2017, Mr. Stout replied to my email stating,

"there should be no herbicide on either of the circuits. The trimming has been completed and we have not scheduled G & T Site Services to do any treatment. At this point both circuits have been trimmed and there should be no crews working the circuit. I will send you the location of where the crews are current working for you to do a site inspection on Monday when I am back in the office."

7. On March 30, 2017, I emailed Mr. Stout following up with his previous email because I didn't see anything in my inbox. Mr. Stout replied stating,

"the crew are currently work on a gas pipeline in Logansport. They will be back in Hammond next week working on a circuit out of the Woodmar Substation. Here is a map of the circuit they will be working next week."

Mr. Stout attached a map of the following area:

- Woodmar Substation Circuit 12-472

8. On April 7, 2017, I arrived in Hammond to inspect the Woodmar Substation Circuit 12-472 sites where Mr. Stout stated the crews would be working. I started my surveillance at the Woodmar Substation marked circuit map. I followed the circuit map from the substation to 173rd. Ave. and Olcott St. where I saw the Energy

Group, Inc. crew in the alleyway. At the time, the crew was cutting down a tree limb in a backyard. I identified myself to the General Foreman Jorge Napoloës and asked if they had any pesticides/herbicides or had been spraying themselves. Mr. Napoloës stated they did have Garlon with them in their trucks that had been pre-mixed into handpump sprayers. Mr. Napoloës also stated they had pesticide application records. I issued Mr. Napoloës an Action Order stating they were to stop pesticide applications because they were not registered technicians and did not have a certified applicator on site.



Figure 6



Figure 7



Figure 8



Figure 9

*Figure 6 is a photograph of the Energy Group, Inc. crew and truck in the alley way

*Figure 7 is a photograph of the hand sprayers the Energy Group, Inc. employees were using with the custom blend Garlon herbicide mixture

*Figures 8 & 9 are photographs of the Energy Group, Inc. truck and pesticide storage area

9. The application records provided on site by Energy Group, Inc. show the following:

[illegible]

Figure 10

[illegible]

Figure 11

*Note-The locations along 35th Ave., Waite St., Johnson St. are areas on the maps provided by Mr. Stout as locations on the circuits where there should be no pesticide applications done. The other locations were not on any of the circuit maps provided by Mr. Stout.

*Figures 10 & 11 show pesticide application locations from January 2017 and February 2017

Mr. Napoles also stated they park their trucks in Highland off of Kennedy Ave. and that their pesticide storage is somewhere in Merrillville off of 61st Avenue in a storage shed, but he was unsure of each exact location.

I took four use dilution samples from the handheld sprayers and turned it into the OISC Formulations Laboratory for analysis.

10. On April 10, 2017, I went to the area of Kennedy Ave. in Highland to conduct surveillance and located the Energy Group, Inc. trucks in Zandstra's Farm / Flowering Plants parking lot prior to them leaving for the morning.



Figure 12



Figure 13

*Figures 12 & 13 are photographs of the Zandstra's Farm parking lot where I located the Energy Group, Inc. trucks.

Main Manifest

Not for use on any other type of vehicle. Use only on vehicles equipped with a vehicle identification number. Results for other vehicles are subject to change.

Vehicle Number	Address	City	State	Circuit	Substation	Begin Pole #	End Pole #
Phone #	Customer #	Phone #	Work Planner	Planner Phone #			
219-843-0000	F210	KNICKERBOCK KER	Hammond	12-472	Woodmar	00097900	00068154
				Robert Brandon		219-789-4344	
Planner's Notes							
New Tree(s) - Distribution Primary - Roadside							
12-472.071.0.0	F346	KNICKERBOCK KER	Hammond	12-472	Woodmar	00068152	00071341
				Robert Brandon		219-789-4344	
Planner's Notes							
CONTACT DO THE HOME OWNER CAN MOVE THEIR CARS							
CONTACT SO THEY CAN MOVE VEHICLES							
1 MULBERRY LOCATED IN SIDEWALK UNDERLINE NEXT TO ALLEY MARKED STACK WOOD IMPRINT OF LIAC BUSHES							
Remove Tree(s) - Small Equipment (6" to 12")							
Clear up Brush							
Leave Wood							
Cut Wood Logs to an 18"x24" Length							
Trim Stumps and Reshape							
12-472.072.0.0	F302	KNICKERBOCK KER	Hammond	12-472	Woodmar	00068152	00046382
				Robert Brandon		219-789-4344	
Planner's Notes							
VanDermeers Raymond							
Tree(s) - Distribution Primary - Roadside							
Tree(s) - Service - Roadside							
2 1 MAPLE, 1 MULBERRY, FOR 19 IN ALLEY							
2 TRIM 2 MAPLE FOR STREET LIGHT WIRE IN FRONT OF HOUSE ON 173RD							

He also added that there was a company Arbor Metrics that comes in to audit their work after it is completed but he does not have copies of the audit reports. While I was on site, I obtained two more photos of pesticide application logs from two additional Energy Group, Inc. trucks:

[illegible][illegible]

*Figure 15 & 16 are photographs of the additional locations for pesticide applications in the Energy Group, Inc. Pesticide Application Log.

- Page 6 of 16



Figure 17



Figure 18



Figure 19

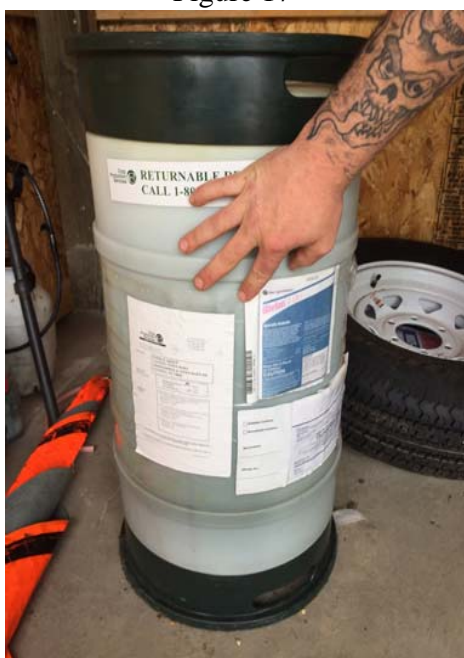


Figure 20



Figure 21



Figure 22

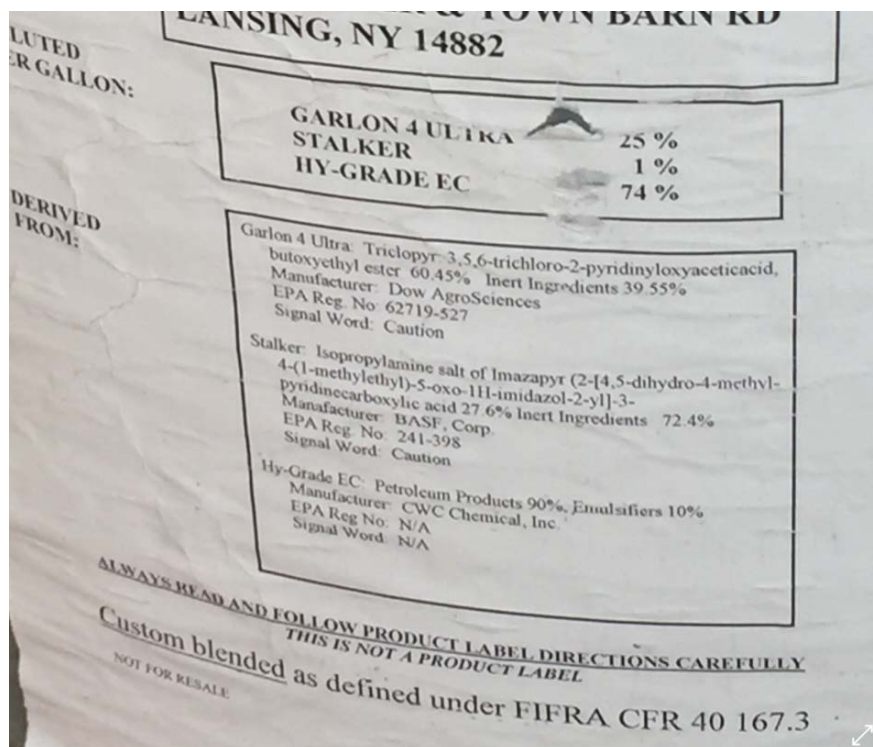


Figure 23

*Figures 17-23 are photographs from the storage unit for Energy Group Inc. in Merrillville, Indiana.

*Figure 23 is a photograph of the custom blended herbicide label. The active ingredients are:

Garlon 4 Ultra, EPA #62719-527, Active Ingredient Triclopyr 60.45%
Stalker, EPA #241-398, Active Ingredient Imazapyr 72.4%

12. On April 13, 2017, I met with Matt Donnellon, president of Energy Group at 8837 Lyndon Street, Detroit Michigan 48238. I explained to Mr. Donnellon we had an anonymous complaint regarding unlicensed pesticide applications taking place with his company. Mr. Donnellon said he was somewhat familiar with the Indiana pesticide laws but was unaware there were any licensing issues. I issued Mr. Donnellon an Action Order to stop making pesticide applications without a certified applicator and/or proper supervision requirements. Mr. Donnellon stated they had been working with Nipsco for about five years and that Mr. Zeigler does in fact get his work orders directly from Nipsco. Mr. Donnellon stated that no one from Nipsco ever contacted Energy Group, Inc. advising them not to spray as it was ordered to do so in the work manifests. Mr. Donnellon believed a person named Kenneth Holderman and John Dix had a license with Indiana but would have to check his records. I stated to Mr. Donnellon that our records show that only John Dix had a license with OISC at this time.
13. On April 13, 2017, I arrived at G & T Site Services 1630 Summit St. New Haven, Indiana 46774. G & T Site Services was the company Mr. Stout from Nipsco stated was supposed to be doing the herbicide treatments after Energy Group, Inc. did the shrub/tree clearing. I spoke to Megan Hanke the Officer Manager. I asked Ms. Hanke to speak with a manager and she stated the project manager Mike Voelker was out of the office but would have him call me back.
14. On April 14, 2017, I received an email from Matt Donnellon with Energy Group, Inc. with a timeline of licensed applicators in the past six years on the Nipsco project and also the work manifests provided by Mr. Zeigler. Mr. Donnellon also stated that John Dix (the only licensed applicator for Energy Group) had not been in Indiana for the past year. Mr. Donnellon also stated,

"The manifest quantities would be what is planned by the planners for NIPSCO, and would be the plan that we are provided. As the work is performed, there may be modifications to the plan. The foreman should be documenting the actual work that is performed."

-Nipsco Work manifests provided by Mr. Donnellon (Energy Group, Inc.):

- 1). Taney Substation
Circuit 34-121
Date: September 01, 2016
Permit Numbers: 34-121.1000.0-34-121.1056.0
- 2). Highland Substation
Circuit 34-111
Date: September 01, 2016
Permit Numbers: 34-111.1001.0-34-111.1015.0
- 3). Taney Substation
Circuit 34-122
Date: December 14, 2016
Permit Numbers: 34-122.0001.0.0-34-122.1001.0
- 4). Wolf Lake Substation
Circuit 3456
Date: January 13, 2017
Permit Numbers: 3456.0020.0.0-3456.0360.0.0

15. On April 25, 2017, I spoke with Mike Voelker of G & T Site Services who advised that they typically did spraying for weeds inside the substations for Nipsco. He also stated that he did do a few months of stump spraying towards the end of last year (2016) for Nipsco. He stated that he would have his secretary send over the Nipsco work manifests for the past year.
16. On May 5, 2017, I received the Bare Ground Application report and Dist_Sub Trans Spray Program spreadsheets from Mr. Voelker. The Bare Ground Applications are performed only inside the substation and no more than three feet outside the fence. These were all dated in 2016, none in 2017. I emailed Mr. Voelker back asking if there was any work documented in 2017 and he replied stating that they have not done any applications for Nipsco from Jan-May 1, 2017. In addition to the spreadsheets, Mr. Voelker listed the herbicide mixes they use for their applications. None of the mixes G&T Site Services used has the same active ingredient used in the Energy Group Inc. custom blend herbicide. The product/active ingredient that is not used by G & T is **Stalker EPA #241-398 Active Ingredient Imazapyr 27.6%.**
17. On September 6, 2017, I spoke with the OISC Pesticide Residue Laboratory Manager, Ping Wan. I asked Ms. Wan if the OISC Residue Laboratory would be able to detect the active ingredient Imazapyr in vegetation or tree stump samples and she stated it was possible. I took samples of the tree stumps at the address of 7704 Taft St. Merrillville, Indiana - near pole 384/283 (Circuit 6927 Gary LOA Sub Trans Overhead Circuit Footprint). These appear to have been treated by a garlon mixture because of the blueish color (figures 4 & 5). As noted in paragraph 2, Subsection 1a & 1b, and paragraph 6 according to Mr. Stout stated there should not have been any stump treatments on this circuit. The work manifest supplied by Mr. Stout states the following:
 - Date of Manifest: September 19, 2016
 - Circuit: 6927
 - Permit number: 6927.1045.0
 - Begin Pole#: 00384284
 - End Pole#: 00384238
 - Address: 7704 Taft, Merrillville IN
 - Planner's Notes: Remove Tree(s)- Medium Roadside (12" to 30"), remove brush- roadside, Cut Wood/Logs to an 18"-24" length, **Treat Stumps and Resprouts**, Remove 2 trees near pole 384283- marked, remove 4 units of brush, leave wood



Figure 24



Figure 25

*Figure 24 is a photograph of the tree stumps near pole 384/283 in March 2017.


*Figure 25 is a photograph of the tree stumps near pole 384/283 in September 2017.

*Orange Arrows are pointing to stump 1

*Blue Arrows are pointing to stump 2

*Red Arrows are pointing to stump 3

18. I received the Pesticide Residue Laboratory Lab Report for the stumps shown above and it shows the following results indicating a positive detection of the active ingredient Imazapyr.

Case # 2017/0427			Investigator: M. Rosch	
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)	
			Triclopyr	Imazapyr
2017-35-5661	Stumpy bark	Bark	BDL	372
2017-35-5662	Soil near stump 3	Soil	BDL	61.9
2017-35-5663	Stump 1- bark	Bark	BDL	2375
2017-35-5664	Stump 3	Bark	BDL	3585
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)	Veg/Bark		3	0.3
LOQ (ppb)	Soil		3	0.1
Signature			Date	10/05/17

19. I received the Pesticide Formulation Report from the OISC laboratory for the formulation analysis of the samples taken in the alleyway from Energy Group. The report shows the following positive detection for the active ingredients Triclopyr and Imazapyr.



INDIANA STATE CHEMIST AND SEED COMMISSIONER

Protecting Indiana's Agriculture and Environment - Feed, Fertilizer, Pesticide and Seed Robert D. Waltz, Ph.D.

Purdue University - 175 South University Street
West Lafayette, IN 47907-2063

Telephone (765) 494-1492 - Facsimile (765) 494-4331
www.oisc.purdue.edu

State Chemist &
Seed Commissioner

PESTICIDE FORMULATION REPORT

INVESTIGATOR MELISSA ROSCH		DATE SAMPLED 4/7/2017		COUNTY	INDIANA REG. NO.	SAMPLE NO. 2017 - 355249
CASE NO. 20170427	CONTAINER/SAMPLE SIZE 1	NO. SAMPLED 1	TYPE		REPORT DATE 12/09/2017	
PRODUCT NAME GARLON USE DILUTION						
LOT NUMBER		EPA REG. NO.			EPA EST. NO.	
MANUFACTURER OR REGISTRANT			DISTRIBUTOR			
DEALER			SAMPLED IN POSSESSION OF ALLEYWAY KNICKERBOCKER 8837 LYNDON STREET DETROIT MI 48238			
SHIPMENT DATA						
DATE	QUANTITY	INVOICE NO.		NO. ON HAND		
ACTIVE INGREDIENT				%GUARANTEE	%FOUND	
TRICLOPYR, BUTOXYETHYL ESTER						
TRICLOPYR, ACID EQUIVALENT					10.3	
IMAZAPYR, ISOPROPYLAMINE SALT						
IMAZAPYR, ACID EQUIVALENT					0.184	



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

PESTICIDE FORMULATION REPORT

INVESTIGATOR MELISSA ROSCH	DATE SAMPLED 4/7/2017	COUNTY	INDIANA REG. NO.	SAMPLE NO. 2017 - 355248
CASE NO. 20170427	CONTAINER/SAMPLE SIZE /	NO. SAMPLED 1	TYPE	
REPORT DATE 12/09/2017				
PRODUCT NAME GARLON USE DILUTION				
LOT NUMBER		EPA REG. NO.		EPA EST. NO.
MANUFACTURER OR REGISTRANT			DISTRIBUTOR	
DEALER			SAMPLED IN POSSESSION OF ALLEYWAY KNICKERBOCKER 8837 LYNDON STREET DETROIT MI 48238	
SHIPMENT DATA				
DATE	QUANTITY	INVOICE NO.	NO. ON HAND	
ACTIVE INGREDIENT			%GUARANTEE	%FOUND
TRICLOPYR, BUTOXYETHYL ESTER				
TRICLOPYR, ACID EQUIVALENT				10.5
IMAZAPYR, ACID EQUIVALENT				0.198
IMAZAPYR, ISOPROPYLAMINE SALT				



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

PESTICIDE FORMULATION REPORT

INVESTIGATOR MELISSA ROSCH	DATE SAMPLED 4/7/2017	COUNTY	INDIANA REG. NO.	SAMPLE NO. 2017 - 355250
CASE NO. 20170427	CONTAINER/SAMPLE SIZE 1	NO. SAMPLED 1	TYPE	
REPORT DATE 12/09/2017				
PRODUCT NAME GARLON USE DILUTION				
LOT NUMBER		EPA REG. NO.		EPA EST. NO.
MANUFACTURER OR REGISTRANT			DISTRIBUTOR	
DEALER			SAMPLED IN POSSESSION OF ALLEYWAY KNICKERBOCKER 8837 LYNDON STREET DETROIT MI 48238	
SHIPMENT DATA				
DATE	QUANTITY	INVOICE NO.	NO. ON HAND	
ACTIVE INGREDIENT			%GUARANTEE	%FOUND
TRICLOPYR, BUTOXYETHYL ESTER				
TRICLOPYR, ACID EQUIVALENT				10.3
IMAZAPYR, ISOPROPYLAMINE SALT				
IMAZAPYR, ACID EQUIVALENT				0.185



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Seed Commissioner

PESTICIDE FORMULATION REPORT

INVESTIGATOR MELISSA ROSCH	DATE SAMPLED 4/7/2017	COUNTY	INDIANA REG. NO.	SAMPLE NO. 2017 - 355251
CASE NO. 20170427	CONTAINER/SAMPLE SIZE 1	NO. SAMPLED 1	TYPE	REPORT DATE 12/09/2017
PRODUCT NAME GARLON USE DILUTION				
LOT NUMBER		EPA REG. NO.	EPA EST. NO.	
MANUFACTURER OR REGISTRANT		DISTRIBUTOR		
DEALER		SAMPLED IN POSSESSION OF ALLEYWAY KNICKERBOCKER 8837 LYNDON STREET DETROIT MI 48238		
SHIPMENT DATA				
DATE	QUANTITY	INVOICE NO.	NO. ON HAND	
ACTIVE INGREDIENT		%GUARANTEE	%FOUND	
TRICLOPYR, BUTOXYETHYL ESTER			10.0	
TRICLOPYR, ACID EQUIVALENT			0.199	
IMAZAPYR, ISOPROPYLAMINE SALT				
IMAZAPYR, ACID EQUIVALENT				

20. I spoke with Mr. Donnellon from Energy Group and asked if he had any timesheets for the crew in Indiana and any of the Arbor Metrics audit reports. Mr. Donnellon advised he would send over the timesheets but didn't have copies of the Arbor Metrics audit reports. I received the Energy Group, Inc. timesheets from October 2016 to March 2017. After reviewing the timesheet records from Mr. Donnellon, I located the corresponding Work ID number (1045) on a timesheet (from Energy Group, Inc.) that matches the permit number (6927.1045.0) on the main manifest Mr. Stout supplied (paragraph 17). This is the same location of the tree stump samples I took in September 2017. The information on the Energy Group, Inc. timesheet shows:

- General Foreman: Kenny Holderman
- Forester: Jake Lewis
- Circuit #: **6927**
- Dates: 11/4-11/5 (2016)
- Work ID Number: **1045**
- Job Description: 4 sq ft of Brush, 5 trims, 11 removals

This matches the Nipsco Work main manifest information listed in paragraph 17:

- Date of Manifest: September 19, 2016
- Circuit: **6927**
- Permit number: 6927.**1045.0**
- Begin Pole#: 00384284
- End Pole#: 00384238
- Address: 7704 Taft, Merrillville IN
- Planner's Notes: Remove Tree(s)- Medium Roadside (12" to 30"), remove brush- roadside, Cut Wood/Logs to an 18"-24" length, **Treat Stumps and Resprouts**, Remove 2 trees near pole 384283- marked, remove 4 units of brush, leave wood

21. I contacted the legal department for Arbor Metrics Solutions requesting to speak to someone about obtaining copies of the reports produced regarding Energy Group, Inc. and the work they have performed. I received a phone call from Andrew Laub, Project Manager with Arbor Metrics Solutions. I asked Mr. Laub if the audits performed by Arbor Metrics would have reports of when herbicides were applied by Energy Group, Inc. Mr. Laub stated he is not certain the records would indicate a herbicide application or not depending on the diligence of the auditor. Mr. Laub stated he does not have access to the copies of the audits and suggested I obtain copies of them from Mr. Stout. I advised Mr. Laub I would want copies of the audits from Arbor Metrics directly.
22. I compared the dates/times from the Energy Group, Inc. Pesticide Log books, corresponding Nipsco Main Manifests, and the Energy Group, Inc. timesheets and found the following:

The addresses and dates listed below are:

1st- Dates/addresses from the Pesticide Application Logs from Energy Group, Inc.,

2nd-The corresponding Nipsco main manifest Permit Number (**PN**)

3rd- Corresponding Energy Group, Inc. Timesheet Equipment #.

(*Note-Equipment # in the Energy Group, Inc. timesheet information is the designation for each truck/crew)

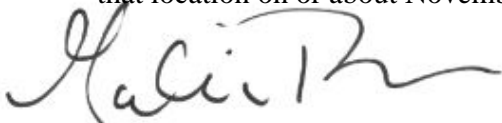
1. 1/13/17: 6026 25th Ave Gary/**PN:34-121.1030.0**/Time Sheet Equipment 181: 1/13/2017-Work ID Multiple id
2. 1/13/17: Matthews Pl Hanley Gary/**PN: 34-121.1025.0 description in planner notes**/Time Sheet Equipment: 180, 182,2361/13/2017 Work ID 1025
3. 1/16/17: 5200 w. Hanley Gary/ No corresponding id's
4. 1/19/17: 2433 Colfax Gary/**PN:34-121.1031.0**/Time Sheet Equipment 169
5. 1/20/17: Best Choice Auto Sales/
6. 1/23/17: 2044 Clark Rd Gary/**PN: 34-121.1016.0**/Time Sheet Equipment 169
7. 1/24/17: 2032,2008,1900 Clark Rd Gary/**PN: 34-121.1017.0, 34-121.1017.1, 34-121.1018.0**/Time Sheet Equipment 169
8. 1/25/17: 1514 Clark Rd Gary/**PN: 34-121.1020.0**/Time Sheet Equipment 182
9. 1/25/17: 21st and Hovey/**PN: 34-121.1019.0**/Time Sheet Equipment 169
10. 1/27/17: 2401-2431-2463 Waite Gary/**PN: 34-121.1000.0, 34-121.1004.0, 34-121.1005.0**/Timesheet Equipment 182
11. 1/27/17: 4060 21st Ave Gary/**PN: 34-121.1011.0**/Time Sheet Equipment 169
12. 1/27/17: 4272 21st Ave Gary/**PN:34-121.1014.0**/Time Sheet Equipment 169

13. 1/27/17: 13th Clark St Gary/PN:34-121.1022.0 (possible)/Time Sheet Equipment 180
14. 1/30/17: add on brush all along 25th Ave Gary- NO day worked on Time Sheet 1/30/17
15. 1/30/17: 13th Clark St Gary-NO day worked on Time Sheet 1/30/17
16. 1/30/17: Clark and 13th Ave Gary-NO day worked on Time Sheet for 1/30/17
17. 2/1/17: 4177 Johnson St Gary/PN: 34-122.0034.0.0/Time Sheet Equipment 236
18. 2/1/17: 41st and Johnson Gary/PN: 34-122.0026.0.0/Time Sheet Equipment 181
19. 2/2/17: 4177 Johnson St Gary/PN: 34-122.0034.0.0/Time Sheet Equipment 182
20. 2/2/17: 4149-4161, 4177-4179 Johnson St Gary/PN: 34-122.0032.0.0, 34-122.0033.0.0,34-122.0034.0.0/Time Sheet Equipment 236
21. 2/3/17: 32nd Chase St Gary/PN: 34-122.0002.0.0/Time Sheet Equipment 236, 169
22. 2/6/17: along 35th Ave Gary /PN: 34-122.0004.0.0/Time Sheet Equipment 182,236,169
23. 2/6/17: 35th and Chase St Gary/PN: 34.122.0004.0.0/Time Sheet Equipment 182,236,169
24. 2/7/17: along 35th Ave Gary/PN:34-122.0004.0.0/Time Sheet Equipment 182,236,169
25. 2/8/17: along 35th Ave Gary/PN:34-122.0004.0.0/Time Sheet Equipment 182,236,169
26. 2/8/17: 35th Chase Gary/PN:34-122.0004.0.0/Time Sheet Equipment 182,236,169
27. 2/8/17: 35th and Chase St Gary/PN:34-122.0004.0.0/Time Sheet Equipment 182,236,169
28. 2/13/17: 47th Ave and Grant Gary/PN: 34-122.0050.0/NO day listed on time sheet 2/13/17
29. 2/14/17: 2726 Norman Ave highland/PN: 34-111.1001.1/Time Sheet Equipment 180
30. 2/16/17: 2920 Norman Ave highland/PN: 34-111.1001.4/Time Sheet Equipment 180

23. In Summary, Energy Group, Inc. made 20 unlicensed pesticide applications on the following dates in 2017 without a certified applicator or required supervision:

- November 4, 5
- January : 13, 16, 19, 20, 23, 24, 25, 27, 30
- February: 1, 2, 3, 6, 7, 8, 13, 14, 16

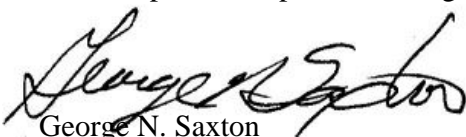
In addition to the location I sampled which the Energy Group, Inc. timesheet indicates they were working at that location on or about November 4 and November 5, 2016.



Melissa D. Rosch
Investigator

Date: June 30, 2017

Disposition: Energy Group, Inc. was cited for twenty (20) counts of violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-2-3, for failure to provide on-site supervision to a non-certified individual. A civil penalty in the amount of \$2,500.00 (20 counts x \$125.00 per count) was assessed. However, the civil penalty was reduced to \$1,875.00. Consideration was given to the fact Energy Group, Inc. cooperated during the investigation.



George N. Saxton
Compliance Officer

Draft Date: July 11, 2018
Final Date: August 16, 2018

CASE SUMMARY

Case #2017/0771

Complainant: Linda Rubino
4181 N 900 W
Thorntown, Indiana 46071
(765) 894-7122

Respondent: Brian Huffer
Co-Alliance LLP
7515 W. State Road 38
P.O. Box 459
Mulberry, Indiana 46058
(765) 296-3895

Certified Applicator

1. On May 18, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to her pasture where her goats graze.
2. On May 23, 2017, I arrived at 4181 N 900 W, Thorntown, Indiana and spoke to the complainant Linda Rubino. Ms. Rubino stated that on May 18, 2017 she saw a red agriculture sprayer spraying in the field across from her property. Ms. Rubino was concerned because of the high wind speed on that day and there may have been drift or damage to her property where the goats graze. Ms. Rubino stated all that she would like is to be notified when they were going to be spraying on or before the date so that she could put her animals away. I collected swab and vegetation samples from the complainant's property where her goats graze, as well as from the target field. I submitted them to the OISC Pesticide Residue Laboratory for analysis.

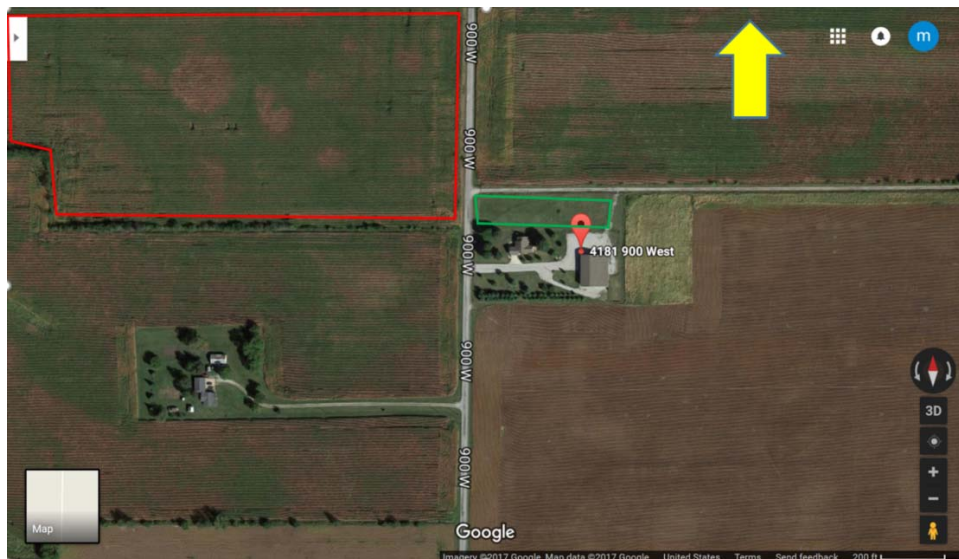


Figure 1

- Figure 1 is a map of the complainant's property and target field. Note the Complainant's grassy area where her goats graze is highlighted in green and the Target field is highlighted in red.



Figure 2



Figure 3

- Figure 2 is a photograph of the grazing area on the complainant's property looking towards the target field Figure 3
- Figure 3 is a photograph of the target field looking towards the grazing area on the complainant's property.

3. I contacted the Co-Alliance LLP-Mulberry Agronomy for the application records. The spray records state the following:


- Pesticides used were:
 1. **DURANGO DMA** EPA #62719-556, Active Ingredient: Glyphosate 50.2%
 2. **ACURON** EPA #100-1466, Active Ingredients: S-Metolachlor 23.4%, Atrazine 10.93%, Mesotrione 2.6%, Bicyclopyrone .65%

*These were tank mixed with water, surfactant non-ionic, Array
- Application was made on May 18, 2017
- Application started at 10:45 am/Est and ended at 11:20am/Est
- Wind Speed at start of application 19mph at 240 degrees
- Wind Speed at end of application 17mph at 240 degrees
- Application speed of 16mph and SW direction
- The applicator indicated he did not have a wind meter

4. I retrieved the weather records from weather underground for May 18, 2017 which states the following:


<u>Time</u>	<u>Temp</u>						<u>Dir</u>	<u>Speed</u>	<u>Gust</u>		
10:35 AM	75.9 °F	-	63.9 °F	66%	29.89 in	10.0 mi	SW	16.1 mph	20.7 mph	N/A	Clear
10:55 AM	76.5 °F	-	63.3 °F	64%	29.90 in	10.0 mi	SW	20.7 mph	27.6 mph	N/A	Clear
11:15 AM	77.2 °F	-	63.9 °F	63%	29.90 in	10.0 mi	SW	20.7 mph	26.5 mph	N/A	Clear
11:35 AM	78.4 °F	-	63.7 °F	60%	29.90 in	10.0 mi	SW	21.9 mph	29.9 mph	N/A	Clear
11:55 AM	79.7 °F	-	64.0 °F	59%	29.90 in	10.0 mi	SW	20.7 mph	28.8 mph	N/A	Clear

5. I received the analysis report from the OISC Pesticide Residue Laboratory with the following results:

Case # 2017/0771			Investigator: M. Rosch		
Sample #	Sample Description	Sample Matrix	Amount Found (ng/swab or ppb)		
			Metolachlor	Atrazine	Mesotrione
2017-355316	Trip blank	Swab	BDL	BDL	BDL
2017-355317	Control swab - Rear of Barn exterior wall	Swab	BDL	BDL	BDL
2017-355318	A-0 Fence post - Least	Swab	BDL	1.15	BDL
2017-355319	A-1 Veg swab -Mid field	Swab	BDL	6.44	BDL
2017-355320	A-2 Fence post -Most /closest to road	Swab	BDL	2.91	BDL
2017-355321	Veg sample least V-0	Vegetation	BDL	19.0	BDL
2017-355322	Veg sample mid field V-1	Vegetation	BDL	15.3	BDL
2017-355323	Veg sample -Most / closest to road V-2	Vegetation	BDL	32.3	BDL
2017-355324	target field swab	Swab	130	579	69.9
2017-355325	Target field veg	Vegetation	NA	NA	NA
2017-355326	Target field soil	Soil	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					
LOQ	Swab	Atrazine LOQ =1 ng/swab, Metolachlor and Glyphosate LOQ =10 ng/swab			
Signature			Date	7/12/17	

*Pesticide Residue Laboratory
Lab Report
(Amended with additional analysis)*

Case # 2017/0771			Investigator: M. Rosch		
Sample #	Sample Description	Sample Matrix	Amount Found (ng/swab or ppb)		
			Glyphosate	AMPA	
2017-355316	Trip blank	Swab	NA	NA	
2017-355317	Control swab - Rear of Barn exterior wall	Swab	NA	NA	
2017-355318	A-0 Fence post - Least	Swab	NA	NA	

2017-355319	A-1 Veg swab -Mid field	Swab	NA	NA	
2017-355320	A-2 Fence post -Most /closest to road	Swab	NA	NA	
2017-355321	Veg sample least V-0	Vegetation	BDL	BDL	
2017-355322	Veg sample mid field V-1	Vegetation	BDL	BDL	
2017-355323	Veg sample -Most / closest to road V-2	Vegetation	BDL	BDL	
2017-355324	target field swab	Swab	NA	NA	
2017-355325	Target field veg	Vegetation	NA	NA	
2017-355326	Target field soil	Soil	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					
LOQ	Veg	Glyphosate=25 ppb; AMPA=125 ppb			
Signature			Date	5/29/18	

6. The label violations for Mr. Huffer are the following:

- **ACURON EPA #100-1466, Active Ingredients: S-Metolachlor 23.4%, Atrazine 10.93%, Mesotrione 2.6%, Bicyclopyrone .65%**

Page 3 of the label reads:

“Do not apply when weather conditions favor drift from treated areas.”

Page 10 of the label reads:

“Leave a 25-foot buffer downwind of the application to avoid drift to non-target areas.”

“Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.”

Page 19 of the label reads:

“Do not apply when weather conditions may cause drift to non-target areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, DO NOT apply when the wind speed is greater than 10 mph or during periods of temperature inversions.”

Page 20 of the label reads:

“Do not apply this pesticide when the product may drift to non-target areas (i.e. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).”

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

- Mr. Huffer allowed the pesticides to drift to non-target and sensitive areas.
- Mr. Huffer applied the pesticides in wind speeds greater than the label requirement of 10mph.
- Mr. Huffer applied the pesticides in winds that were blowing towards sensitive areas.



Melissa D. Rosch
Investigator

Date: December 6, 2017

Disposition: Brian Huffer 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 his 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: June 26, 2018
Final Date: August 13, 2018

CASE SUMMARY

Case #2017/0888

Complainant: Kevin Rosenbaum
Rosenbaum Nursery
2852 S 300 W (2852 Long Lane)
La Porte, Indiana 46350
219-380-9890

Respondent: Helena Chemical
Pat Phegley
1732 E. Hupp Road
La Porte, Indiana 46350
219-608-8938

Licensed Business
Certified Applicator

1. On June 16, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his Canadian hemlock.
2. On June 21, 2017, I met the complainant Kevin Rosenbaum at 2852 S 300 W La Porte, Indiana. Mr. Rosenbaum stated he believed his nursery had been drifted on by an agricultural pesticide spray application from the field to the south of his property. Mr. Rosenbaum stated that he observed an agricultural sprayer in the field when the wind was blowing directly at his nursery. Mr. Rosenbaum stated he had observed brown/dead branches and also what appeared to be a smaller/stunted growth in the first row of hemlock trees closest to the target field.



Figure 1



Figure 2

-Figure 1 shows the exposure symptoms Mr. Rosenbaum described on his trees with dead branches

-Figure 2 shows the proximity of the sample area (orange arrow) to target field (red arrow)

3. I took photographs and diagramed the areas of exposure symptoms reported by the complainant. Swab and vegetation samples were taken of the affected vegetation from the complainant's property as well as swab, soil, and vegetation samples from the target field. I submitted the samples to the OISC Residue Laboratory and Purdue Plant and Pest Diagnostic Laboratory for analysis.

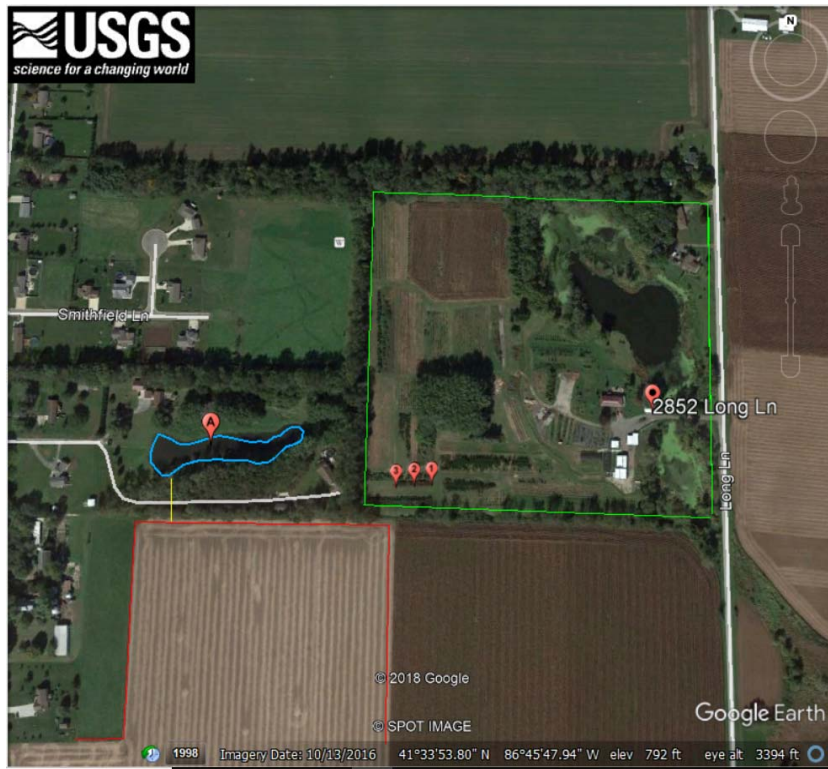


Figure 3

- Figure 3 is a photograph of the complainant's property/target field
 - Complainant's property is outlined in green
 - Target Field is outlined in red
 - Markers 1,2, and 3 are approximate locations of corresponding samples (see OISC Residue Laboratory results in Paragraph 7)
 - Blue outline is adjacent property pond/water area
 - Yellow line is Google Earth approximate measure from Target Field to Water of 149 feet
4. On June 22, 2017, I spoke with Mike Ault from Helena Chemical. Mr. Ault stated they did make an agricultural pesticide spray application to the target field on June 12, 2017 starting at approximately 8:00 am but did not have an end time. The Pesticide Investigation Inquiry submitted by Mr. Ault stated an applicator estimate of SW/E Winds from 10-15 mph. The application records show Mr. Phegley used the following pesticides:
 - **Capreno EPA #264-1063, Active Ingredients Tembotrione 28.3%, Thiencarbazone-methyl 5.6%**
 - **Helena Atrazine 4F Herbicide EPA #100-497-5905, Active Ingredient Atrazine 42.6%**

5. I checked the weather history for June 12, 2017, on the weather underground website for La Porte, Indiana (KPPO) from 8:00am to 12:00pm:

Time	Direction	Speed (MPH)	Gust (MPH)
815	SSW	13.8	18.4
835	SW	16.1	
855	SW	11.5	19.6
915	SW	16.1	19.6
935	SW	11.5	
955	WSW	12.7	16.1
1015	SW	11.5	17.3
1035	SW	12.7	18.4
1055	SW	11.5	18.4
1115	SW	11.5	16.1
1135	WSW	8.1	19.6
1155	SSW	8.1	16.1
1215	SW	11.5	18.4

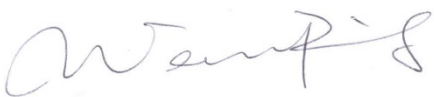
6. I received the diagnostic report from PPDL and it states:

"After moist chamber incubation and extensive microscope examination we are unable to identify a pathogen on the dying hemlock branch tips. This appears to be caused by some type of injury. Damage from a late spring frost is possible if the symptom appearance followed a frost event. The photos show generally healthy trees so stress related to root/soil problem is unlikely. I am unable to match symptomology of submitted samples and pictures to a herbicide. Dead needles are right next to healthy tissue without a transition zone to look for herbicide symptomology."

7. I received the OISC Residue Laboratory analysis which states:

Case # 2017/0888			Investigator: M. Rosch		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb or ng/swab)		
			Thiencarbazone-methyl	Tembotrione	Atrazine
2017-355481	Trip Blank	Swab	BDL	Not tested	BDL
2017-355482	Control Sample 1	Swab	BDL	Not tested	4.57
2017-355483	Control Sample 2	Swab	Not tested	Not tested	Not tested
2017-355484	Acetone Swab- Tree 1A	Swab	0.273	Not tested	13.0
2017-355485	Acetone Swab- Tree 1B	Swab	Not tested	Not tested	Not tested
2017-355486	Acetone Swab- Tree 2A	Swab	BDL	Not tested	10.2
2017-355487	Acetone Swab- Tree 2B	Swab	Not tested	Not tested	Not tested
2017-355488	Acetone Swab- Tree 3A	Swab	BDL	Not tested	20.6
2017-355489	Acetone Swab- Tree 3B	Swab	Not tested	Not tested	Not tested
2017-355490	Target Field- Swab A	Swab	6.43	Not tested	900
2017-355491	Target Field- Swab B	Swab	Not tested	Not tested	Not tested
2017-355492	Veg Sample 1 Tree	Vegetation	BDL	BDL	211
2017-355493	Veg Sample 2 Tree	Vegetation	BQL	0.905	269
2017-355494	Veg Sample 3 Tree	Vegetation	BQL	BDL	275
2017-355495	Target Field Veg	Vegetation	BQL	BDL	85.7
2017-355496	Target Field Soil	Soil	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

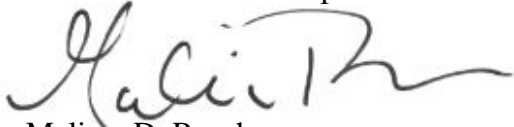
LOQ (ng/swab)	Swab	0.2	Not tested	1
LOQ (ppb)	Veg	0.3	0.3	3
Signature		Date	1/10/18	

8. I also observed on the Google Earth image a possible lake or water area on the property to the west of the complainant (Marker A in Figure 3). I contacted the complainant to verify this and he did confirm there was a lake/water area at that residence, and said it was ok to discuss the complaint made with OISC. I spoke with the adjacent property owner Brent Raymond to verify that it was in fact a lake/water area. Mr. Raymond measured the distance from his property line to the water line and it measured approximately 150 feet. I informed Mr. Raymond of the complaint made with OISC, and regulations regarding the use of **Atrazine** by the respondent.
9. The label violations for **Capreno EPA #264-1063, Active Ingredients Tembotrione 28.3%, Thiencarbazone-methyl 5.6%** are the following:
 - On Page 3- *“Only apply this product when the potential for drift to adjacent non-target areas is minimal (e.g., when the wind is **10 MPH or less** and is blowing away from sensitive areas).*
 - On Page 4 - *“A 25 foot buffer for ground applications must be maintained between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrub lands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, creeks, marshes, streams, reservoirs, and wetlands) and estuarine/marine habitats.”*

The label violations for **Helena Atrazine 4F Herbicide EPA #100-497-5905, Active Ingredient Atrazine 42.6%** are the following:

- On Page 5- *“This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs.”*
 - On Page 8- *“Avoid using near adjacent desirable plants or in greenhouses, or injury may occur.”*
10. It appears there is a violation in this case based on the following:
 - Mr. Phegley made an agricultural pesticide application when the environmental wind speeds exceeded the maximum label requirements and was blowing in the direction of the sensitive/desirable area (Rosenbaum Nursery).

- Mr. Phegley made an agricultural pesticide application violating the setback requirements for lakes of 200 feet, as confirmed by the complainant's neighbor and Google Earth.
- The active ingredients in both pesticides used in Mr. Phegley's agricultural pesticide application were found off target and in the vegetation of the complainant's desirable plants (Rosenbaum Nursey Trees).



Melissa D. Rosch
Investigator

Date: February 19, 2018

Disposition: Pat Phegley and Helena Chemical were cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift and violation of the atrazine setbacks. A civil penalty in the amount of \$250.00 was assessed to Helena Chemical. Consideration was given to the fact a restricted use pesticide was involved.



George N. Saxton
Compliance Officer

Draft Date: May 17, 2018
Final Date: July 9, 2018

CC:

Brent Raymond, 2971 S. 350 W., La Porte, IN 46350

Mike Ault - Helena Chemical, 1732 E. Hupp Rd. La Porte, IN 46350

CASE SUMMARY

Case #2017/0898

Complainant: Rex Fields
4581 E. SR 28
Union City, IN 47390
765-748-4016

Respondent: Toby Daugherty
LeFevre Farms
1524 Fox Road
Fort Recovery, OH 45846
419-852-0762

Private Applicator

1. On June 19, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his soybeans.
2. On June 20, 2017, I spoke with Rex Fields who reported some soybeans in his field appeared to be affected by drift from an application made to the adjacent cornfield.
3. On June 21, 2017, I met with Mr. Fields at his farm and then drove to the site on the north side of CR750N in Randolph County. Mr. Fields reportedly noticed symptoms on his beans on June 17. We walked the western edge of his bean field where emerged soybeans were stunted with cupped and discolored leaves. There were dead and dying weeds in the cornfield which bordered his field on the west; no fence line or biological barrier separated the fields. Mr. Fields indicated there was a history with the neighboring farmer but he did not elaborate. The soybean field was reportedly sprayed commercially in late April with a burndown mix including Roundup, Matador, Sharpen and 2,4-D. I photographed the site and collected plant samples from the bean field for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue. I also collected soil and plant samples from the target field and from the bean field. A control plant sample was collected from unaffected beans. Those samples were submitted to the OISC Residue Lab for analysis.



Fig.1 Corn/bean fields looking north



Fig.2 Affected soybeans




Fig.3 Stunted beans along cornfield


4. I met with Tom LeFevre and some of his employees at a nearby farm. He confirmed he was farming the cornfield in question and that his applicator sprayed the field in early June. A worker mentioned that if Mr. Fields had notified them that there was a problem, they would have replanted the area for him. According to application information provided by Mr. LeFevre, Toby Daugherty sprayed the field on June 2, 2017 from 730pm-815pm with a tank mix containing Harness Xtra 5.6L (EPA Reg. #524-485), active ingredients atrazine and Acetochlor, and Calisto (EPA Reg. #100-1131), active ingredient mesotrione. Winds were reported as blowing from the northwest at

5mph at the time of the application. A check of wind data at the Versailles, Ohio and Muncie, Indiana airports confirmed winds were from the north-northwest at 6.9mph and 9.2mph respectively during the time of the application.

5. The PPDL report for the samples submitted indicated, *“Necrosis and chlorosis on margin of older leaves is indicative of injury from atrazine. Puckering on the first trifoliolate can be indicative of injury from a group 15 herbicide applied POST. Some bleaching on leaves can be indicative of a group 27 herbicide.”* Further, it stated, *“Some lower roots were decayed and Pythium was isolated from the smallest feeder roots and could be contributing to stunting, especially for plants growing in low areas. Isolations for Phytophthora and Rhizoctonia were negative.”*
6. The OISC Residue Lab analyzed the plant samples for atrazine, mesotrione and acetochlor and reported the following (based on the plant sample results, soils were not analyzed):

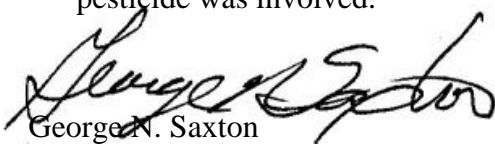
Case # 2017/0898			Investigator: A. Roth		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Atrazine	Mesotrione	Acetochlor
2017-474072	Control Vegetation- Unaffected beans	Vegetation	43.6 ppb	BDL	BDL
2017-474073	Off target -Beans	Vegetation	171 ppb	BQL	BDL
2017-474074	Target weeds	Vegetation	4960 ppb *	2210 ppb *	8610 ppb *
2017-474075	Off target soil - Bean field	Soil	NA	NA	NA
2017-474076	Target soil- corn field	Soil	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					
*minimum amount reported due to concentration exceeded calibration curve range.					
LOQ	Veg	Atrazine=3 ppb; Mesotrione=3 ppb; Acetochlor=33 ppb			
Signature			Date	7/16/17	

7. While wind speeds were not excessive, and the area of affected soybeans was not extensive, evidence supports the off-target movement of the herbicide from the intended target field. The Harness Xtra 5.6L label reads, in part, **“Do not apply when wind conditions favor drift to non-target sites.”**


 Andrew R. Roth
 Investigator

Date: December 15, 2017

Disposition: Toby Daugherty was cited for violation of section 65(2) of the Indiana Pesticide Use & 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 a restricted use pesticide was involved.


 George N. Saxton
 Compliance Officer

Draft Date: April 9, 2018
 Final Date: June 20, 2018

CASE SUMMARY

Case #2017/0936

Complainant: Robert Memering
16046 E. Farmstead Road
Edwardsport, Indiana 47528
812-887-4871

Respondent: Fred Albrecht
Tony Walton
White River Co-op
1164 W 450 N
Washington, Indiana 47501
812-617-1548

Branch Manager
Certified Applicator
Licensed Business

1. On June 28, 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 June 29, 2017, I met with the complainant. I identified myself verbally and with OISC credentials. I explained the role of OISC in drift investigations and issued a Notice of Inspection. The complainant told me he thought a pesticide application to a neighboring soybean field of a dicamba-tolerant (DT) product had drifted onto his non-dicamba tolerant soybeans, causing injury to his crop.
3. The complainant took me to the field in question (Fig. 1) and as we drove past his field and continued south I could see the injury symptoms of cupping/puckering and curling edges on the soybeans. The symptoms were increasing in severity as we continued south to the point where the two fields joined together (Fig. 3&4). The soybean plants on the north edge of the complainant's field exhibited slight pesticide exposure symptomology and as we drew closer to the suspect field of DT soybeans, the symptoms were more severe (fig.4).



Fig. 1



Fig. 2



Fig. 3



Fig. 4

- Figure 1 is the far north edge of the complainant's soybean field.
- Figure 2 is the center portion of the complainant's soybean field.
- Figure 3 is the point at the far south end of the complainant's soybean field where it butts up against the neighboring field of dicamba tolerant soybeans.
- Figure 4 is a close up of the complainant's soybeans seen in figure 3.

4. The complainant told me his neighbor's beans had a recent pesticide spray application of a new dicamba product. The White River Co-Op in Washington, Indiana made the pesticide spray application. The complainant told me there had not been a post emergent pesticide spray application made to his soybeans this season. I phoned the White River Coop about the pesticide spray application and found out during that conversation there was "no buffer zone" observed in the pesticide spray application in this case.
5. I collected plant samples, swabs and vegetation in a gradient fashion from the complainant's field (figs 5&6). I worked from the lesser affected portion of the field (north) to the most affected (south), where the two fields meet. I also collected swabs, vegetation and soil from the suspect field. All of the samples were tagged, transported and turned into the appropriate laboratory for analysis, the plant sample to the Purdue Plant and Pest Diagnostic Laboratory (PPDL) and the swabs, vegetation and soil to the OISC Residue Laboratory.



Fig. 5

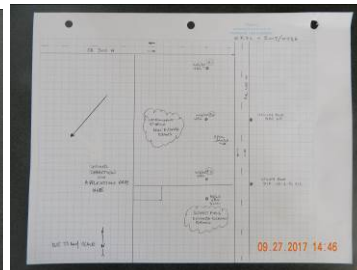


Fig. 6

6. I met with Mr. Fred Albrecht, the Branch Manager of the White River Co-Op in Washington Indiana and he provided the following information on the pesticide application made to the field, which borders the complainant's field to the south. The pesticide spray application was made on *June 8, 2017* by certified applicator Tony Walton. The following pesticide products were used:
 - *Roundup Powermax*, EPA Reg #524-549, AI= glyphosate 48.7%
 - *Select*, EPA Reg. #59639-132, AI=clethodim 26.4%
 - *Engenia*, EPA Reg. #7969-345, AI=dicamba 48.38%
7. On June 30, 2017, I received the final report from PPDL for the plant sample submitted. The report reads in part:

FINAL REPORT

6-30-17

"Cupped and strapped leaves are indicative of injury from dicamba"

Joe Ikley
Extension Weed Specialist
Purdue University
915 West State Street W. Lafayette, IN 47907

8. On July 26, 2017, I picked up the Pesticide Investigation Inquiry (PII) that I left for Mr. Fred Albrecht. When I picked up the PII Mr. Albrecht told me the certified applicator in this case had since retired but added he was able to fill out the PII from the records he had for the application. The PII is attached to the case file.

9. The following question were taken from the PII submitted in this case. The PII reads in part:
- a. Application date and time: June 8, 2017, 4:30 pm to 6:00 pm
 - b. Location of the pesticide application: Kendall Gross 3028 N 100 W Washington Indiana 47501
 - c. Pesticides used: Roundup Powermax, Select, Engenia
 - d. Application rate of Engenia: 12.6 oz.
 - e. Name of any drift control/thickening agents that were used:
FS Attero
 - f. Total amount of diluted materials applied:
15 GPA
 - g. Nozzles: TTI 11004, 20
 - h. Winds: applicator estimate and weather station, Calm to the NNW and Davies County Airport-8.1-calm
 - i. Name of the Applicator: Tony Walton
 - j. Ground Speed for the application: 10-12 mph
 - k. Was FieldWatch/Driftwatch website checked prior to application? NO
 - l. Was Engenia website checked prior to application? Yes
 - m. Was the application site surveyed prior to application? Yes
 - n. If a buffer was left, indicate the size of the buffer. "Left blank"
10. The weather information which follows in the first chart was taken from the PII submitted by the respondent in this case and the source is cited as:

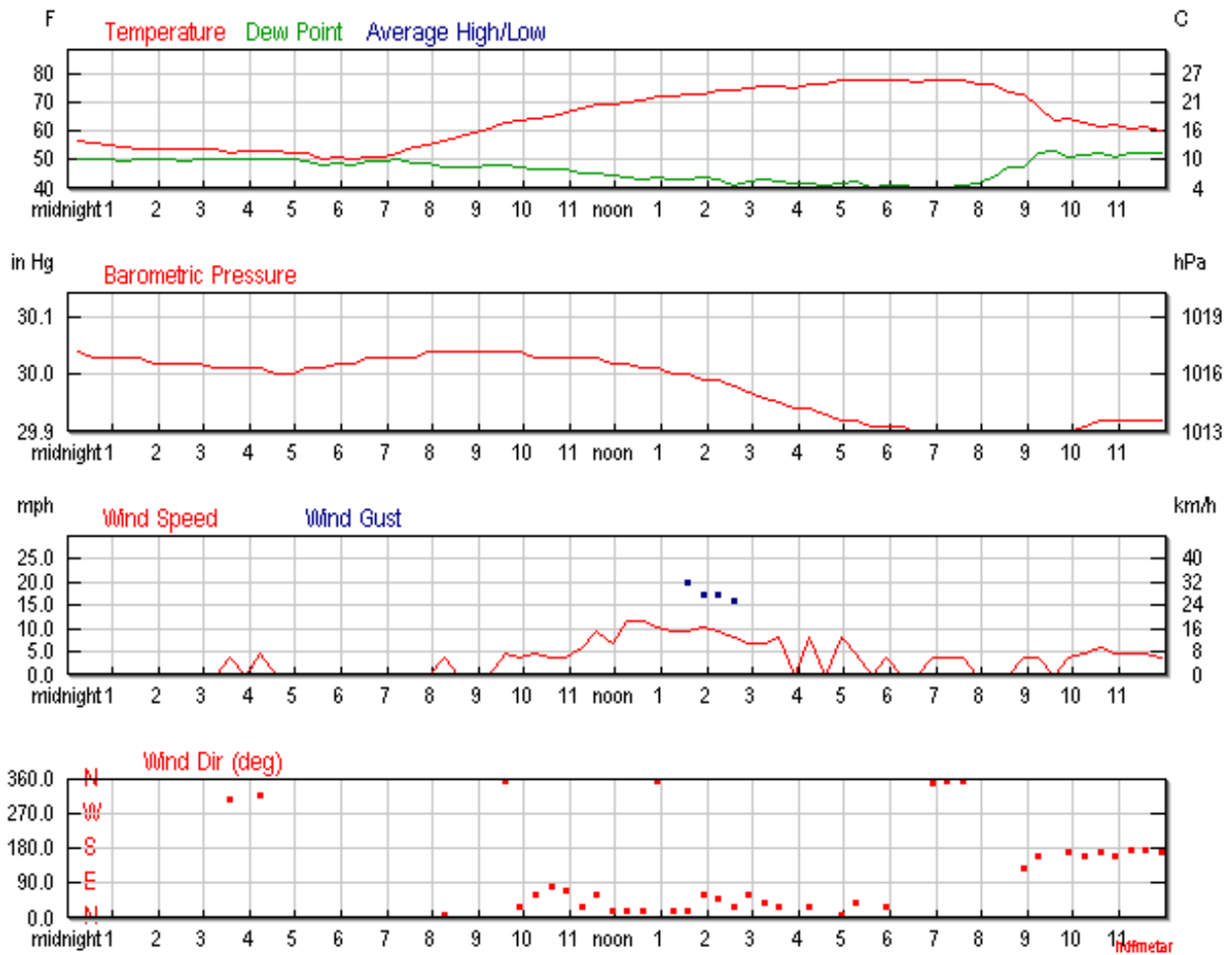
“Applicator estimate and from Davies County Airport”.

DATE/TIME	WIND SPEED	WIND DIRECTION
6-8-17 4:30PM – 6:00PM	CALM – 8.1 MPH	NNW

The Davies County airport weather information which follows in the second chart is taken from **weatherunderground.com** for the date and time of the pesticide spray application in this case. *The Davies County Airport is three miles NE of Washington Indiana*

DATE/TIME	WIND SPEED	WIND DIRECTION
6-8-17 4:35PM	Calm	Calm
6-8-17 4:55 PM	8.1	N
6-8-17 5:15 PM	4.6 mph	NE
6-8-17 5:35 PM	Calm	Calm
6-8-17 5:55 PM	3.5 mph	NNE

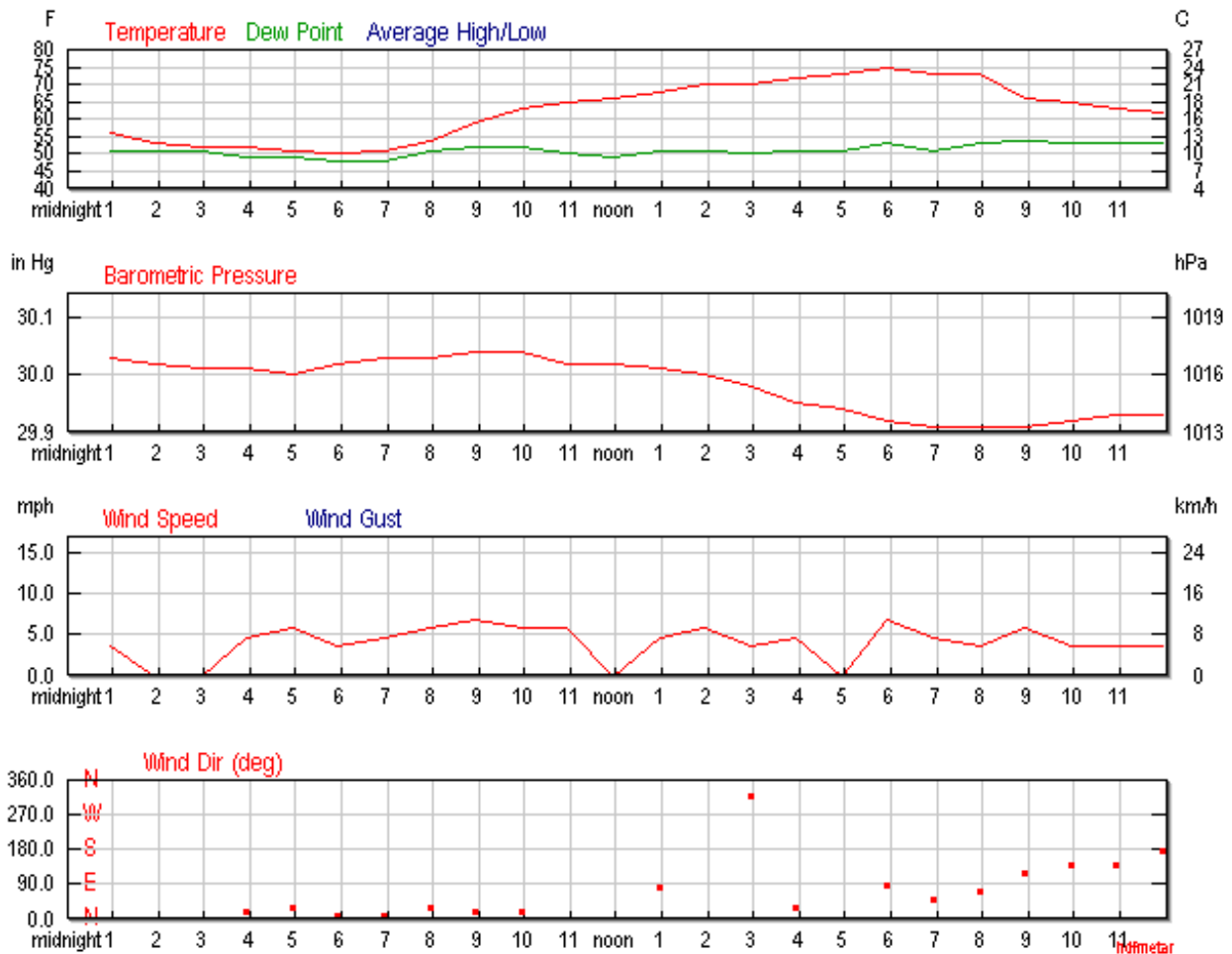
Daily Weather History Graph



The next weather station for a triangulation of weather will be taken from **weatherunderground.com** history for *Huntingburg Indiana*, which is located approximately 30 miles SE of Washington Indiana.

DATE/TIME	WIND SPEED	WIND DIRECTION
6-8-17 4:56pm	Calm	Calm
6-8-17 5:56pm	6.9 MPH	East

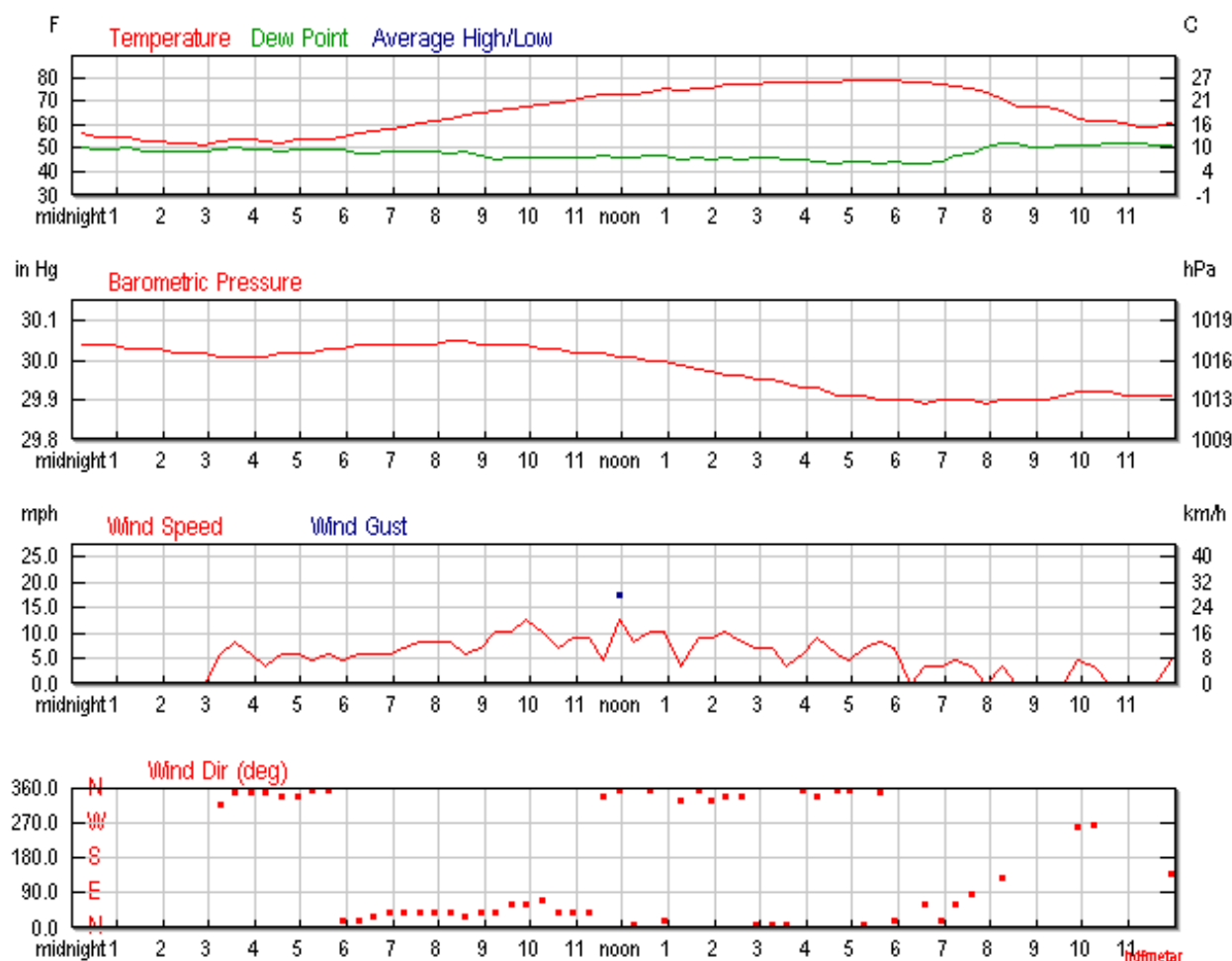
Daily Weather History Graph



The next weather station for a triangulation of weather will be taken from weatherunderground .com history for Mt. Carmel Illinois which is located approximately 33 miles SW of Washington Indiana.

DATE/TIME	WIND SPEED	WIND DIRECTION
6-8-17 4:40pm	5.8 MPH	North
6-8-17 4:55pm	4.6 MPH	North
6-8-17 5:15pm	6.9 MPH	North
6-8-17 5:35pm	8.1 MPH	North
6-8-17 5:55pm	6.9 MPH	NNE


Daily Weather History Graph



11. On September 11, 2017, I received the final report from the OISC Residue Laboratory on the samples submitted in this case. The chart which follows documents those results.

OFFICE OF INDIANA STATE CHEMIST Pesticide Residue Laboratory Lab Report

Case #	2017/0936			Investigator		B. Baker	
Sample #	Sample Description	Amount of Analyte (ppb)					
		Matrix	Dicamba	5-OH Dicamba	DCSA	Glyphosate	AMPA
2017-32-3726	Vegetation sample from North end of Complainant’s field	Veg	BDL	BDL	BDL	BQL	BDL
2017-32-3727	Vegetation sample from center of Complainant’s field	Veg	1.9	BDL	BDL	10.6	BDL
2017-32-3728	Vegetation sample from South end of Complainant’s field	Veg	8.1	BDL	0.34	BDL	BDL

2017-32-3731	Vegetation sample from suspect target field	Veg	2.0	BDL	146	8400	580
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	Vegetation		2 ppb	2 ppb	0.2 ppb	5-25 ppb	25-125 ppb
Signature				Date		9/11/2017	

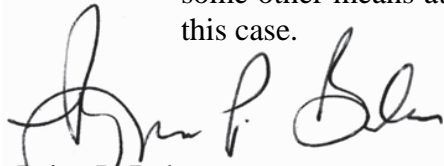
The results in this case indicate the presence of both dicamba and glyphosate in the non-target soybean field. The tank mix for the pesticide spray application made by the respondent includes both dicamba and glyphosate (paragraph 6). The complainant did use “Abundit Edge, EPA Reg. #524-549-352, AI=Glyphosate 48.7%”, in his pre-emergent.

12. The Engenia label states in part, “*The applicator must also consult sensitive crop registries to locate nearby sensitive areas where available.*” The label also states, “**Wind Speed < 3 mph. Only apply Engenia if steps have been taken to confirm that a temperature inversion is not present.**”

13. In conclusion:

- The complainant has a field planted in non-DT soybeans bordering (fig.3) a neighbor’s field of DT soybeans. At the time of report, there had been no post emergent pesticide spray applications made to the complainant’s field and no dicamba products used in the neighboring fields except for the respondent’s field.
- The suspect field had a pesticide spray application of the pesticide products listed in paragraph 6 of this report, which include a dicamba product.
- The injury symptoms on the complainant’s soybeans, cupping/puckering and curling on the edges were observed by me and when related to the PPDL along with a plant sample is said to be “indicative of exposure to dicamba”.
- The samples submitted to the OISC Residue Laboratory from both the complainant and suspect fields contained two of the three-tank mix pesticides in the tank mix applied in the respondent’s pesticide spray application. The samples were not analyzed for clethodim.
- The weather data for the day of the respondent’s pesticide spray application from the respondent’s source; history for Washington Indiana/Huntingburg Indiana and Mt. Carmel Illinois, agree that the prevailing wind direction was moving away from the non-dicamba tolerant soybeans on the day of the application. However, the winds were “calm” during part of the application as verified by the respondent, Davies County Airport and Huntingburg weather reporting station.
- Based on the bullet points above, the data contained in them suggests the dicamba and the glyphosate pesticide products in this case moved off the target application site to the complainant’s field. The weather information cited shows it cannot be attributed to a wind drift during the application.

- There are 20 days between the pesticide spray application in this case and the report of injury symptoms by the complainant. The difference seen in the results from the OISC Residue lab can be attributed to the significantly higher analytical limit of quantitation for glyphosate as compared to dicamba along with the fact the complainant did use glyphosate in his pre-plant burn down. The low reading in this case and the absence of wind blowing in the direction of the non-target field appear to indicate a movement of the dicamba during a temperature inversion, volatility or some other means at some point during or after the application to the target field in this case.



Brian P. Baker
Investigator

Date: September 20, 2017

Disposition: Tony Walton and White River Co-op were warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding checking of sensitive crop registration before making an application.

Tony Walton and White River Co-op 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 by applying in calm winds. A civil penalty in the amount of \$250.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: April 19, 2018

Final Date: June 21, 2018

CASE SUMMARY

Case #2017/0951

Complainant: Scott Wallis
1204 E 500 S
Princeton, Indiana 47670
812-304-0488

Respondent: Jeffrey E Smith (Private Applicator)
4098 N 200 E
Patoka, Indiana 47666
812-779-3581

1. On June 30, 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. He stated this is the second time this year this has happened.
2. On July 11, 2017, I met with Scott Wallis at the soybean field where the alleged off-target pesticide movement occurred. Mr. Wallis stated this was the second complaint on the same soybean field this year (see case #2017/0845). Mr. Wallis indicated he learned a dicamba product had been applied for a second time to the same field (to adjacent west) by Jeff Smith and believed it had again moved off-target and further impacted his non-dicamba tolerant (DT) beans. Mr. Wallis stated he had recently applied Liberty (EPA Reg. #264-829; active ingredient: glufosinate) to the soybean field and noticed the beans appeared worse than earlier in June 2017.
3. During my on-site investigation I did the following:
 - a) Looked for but did not observe, nor learn of from Mr. Wallis, any other dicamba applications made in the areas adjacent to his soybean field.
 - b) Observed and photographed what appeared to be mostly exposure symptoms (figure 1 below) to a growth regulator type of herbicide such as dicamba. These symptoms were more notable within the first forty (40) to fifty (50) feet of Mr. Wallis' field from Mr. Smith's field. The symptoms then become more consistently uniform over the remainder of Mr. Wallis' field.
 - c) Collected soybean leave samples from Mr. Wallis's bean field and soil/vegetation samples from Mr. Smith's bean field. Samples were turned into the Indiana State Chemist Residue lab on July 12, 2017.
4. The graph below (Illustrated #1) shows the field locations in question, wind direction and areas where samples were obtained.

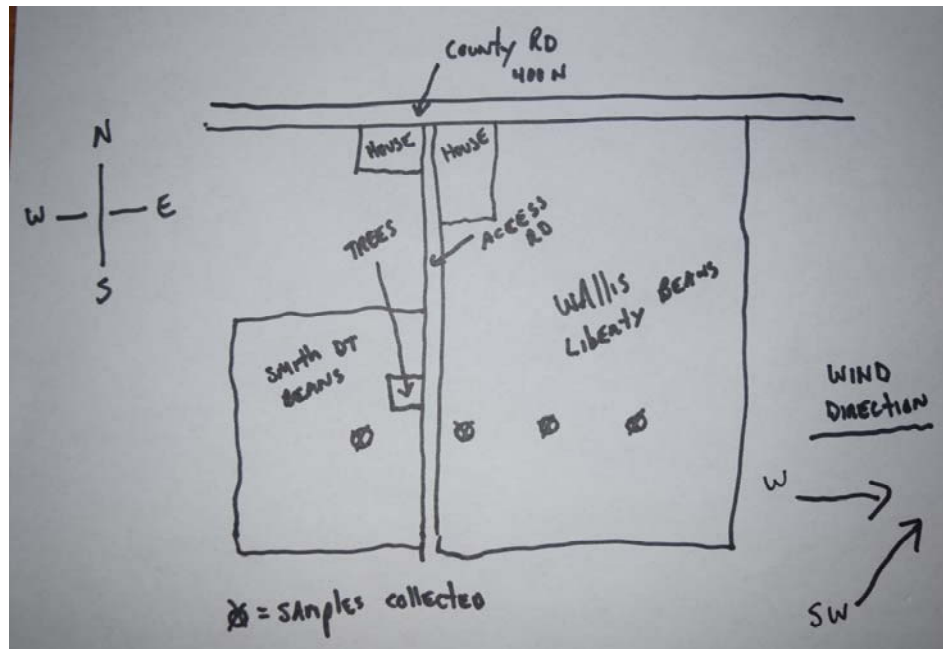


Illustration #1

5. Figure #1 below show Mr. Key's beans with exposure symptoms consistent with a growth regulator, such as dicamba.



Figure #1

6. I contacted Jeff Smith and spoke to him about the target field (soybean field west of Mr. Wallis' bean field) in question. Mr. Smith indicated the winds during his applications were not blowing toward Mr. Wallis' bean field and a 200-foot buffer zone had been used. Mr. Smith informed me he had applied Warrant (EPA Reg. #524-591; active ingredient: acetochlor), Roundup Powermax (EPA Reg. #524-549; active ingredient: glyphosate) and Engenia (EPA Reg. #7969-345; active ingredient: dicamba) to the bean field on June 21, 2017. I informed Mr. Smith he would be receiving a Pesticide Investigation Inquiry (PII) form to be completed and returned. The PII was returned on July 25, 2017, and indicated the following:
- a) Application date & time: June 21, 2017, ; between 1:00pm and 3:00pm
 - b) Target field: soybean field located directly west of Mr. Wallis's bean field;
 - c) Application rate of Engenia: 12.8 oz. per acre;

- d) Adjuvants: ClassAct Ridion Surfactant and AG16098 Control Agent
- e) Nozzles: Tee jet TTI 04; 40 PSI
- f) Winds: from North at 6 miles per hour.
- g) Applicator: Jeff Smith (private applicator)
- h) Buffer Zone: yes (200 feet)
- i) Ground speed: 9 miles per hour (mph)
- j) Boom height: 24 inches
- k) Checked Registrants website before application: no
- l) Checked Field Watch before application: no
- m) Surveyed site before application: yes

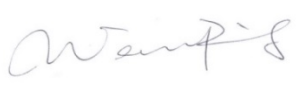
7. I searched historical wind data from www.wunderground.com for the closest weather stations located near Patoka, Indiana, for the reported date and time of the application. The results were as follows on June 21, 2017:

- Mt. Carmel, Illinois Airport (distance 17 miles): winds were from the west/southwest (blowing toward Mr. Wallis' bean field) between 8.1 and 11.5 mph. No gusts were reported.
- Evansville, Indiana Airport (distance 25 miles): winds were from the west/southwest (blowing toward Mr. Wallis' bean field), between 10.4 and 12.7 mph. No gusts were reported.
- Daviess County Airport in Washington, Indiana (distance 28 miles): winds were from the west/southwest (blowing toward Mr. Wallis' bean field) between 6.9 and 10.4 mph. A gust of 18.4 mph was reported from this station during the application period.

8. On December 19, 2017, I received the following lab results:

OFFICE OF INDIANA STATE CHEMIST
Pesticide Residue Laboratory
 Lab Report

Case #	2017/0951	Investigator			S. Farris		
Sample #	Sample Description	Amount of Analyte (ppb)					
		Matrix	Dicamba	DCSA	5-OH Dicamba	Cloransulam-methyl	Acifluorfen
2017-51-0126	Soybean Vegetation 240 feet east of target field	Vegetation	BQL	BDL	BDL	BDL	Did not test
2017-51-0127	Soybean Vegetation 120 feet east of target field	Vegetation	BDL	BDL	BDL	BDL	Did not test
2017-51-0128	Soybean Vegetation 50 feet east of target field	Vegetation	BQL	BQL	BDL	BDL	Did not test
2017-51-0129	Soybean Vegetation in target field	Vegetation	BDL	7.41	BDL	BQL	Did not test
2017-51-0130	Soil target field	Soil	53.2	173	BDL	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)	Veg	2	0.2	2	0.3	Did not test
LOQ (ppb)	Soil	2	1	1	Did not test	Did not test
Signature			Date	12/19/2017		

9. The Engenia Supplemental label stated the following:

- *“Before making an application . . .”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 list of EPA approved products for use with Engenia at www.engeniatankmix.com no more than 7 days before applying Engenia . . .”*
- *“DO NOT apply when wind is blowing in the direction of neighboring specialty crops.”*
- *“If the wind is between 10 and 15 mph, “DO NOT apply Engenia when wind is blowing toward neighboring sensitive crops.”*


 Scott M. Farris
 Investigator

Date: December 21, 2017

Disposition: Jeffrey E. Smith 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 registrant’s website before application.

Jeffrey E. Smith was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for applying Engenia when the wind is between 10 to 15 miles per hour and blowing toward neighboring sensitive crops. A civil penalty in the amount of \$100.00 was assessed for this violation.


 George N. Saxton
 Compliance Officer

Draft Date: April 18, 2018
 Final Date: June 25, 2018

CASE SUMMARY

Case #2017/0952

Complainant: John Mathis
21801 S. US Hwy 421
La Crosse, IN 46348
(561) 512-5940

Respondent: Owen D. Gudeman
375 East 1050 South
Kouts, IN 46347
(219) 508-0344

Private Applicator

1. On July 1, 2017, the Complainant, John Mathis, contacted the Compliance Officer of the Indiana State Chemist (OISC) to report an agriculture spray drift to his son. Mr. Mathis stated in his complaint that he was outside with his son in their yard/driveway area and Mr. Mathis saw a tractor and sprayer across the street from them at approximately 10:00 am CST. Mr. Mathis stated that the applicator had to have seen them standing in the driveway because it is only about 50 yards from where they were.
2. On July 1, 2017, I spoke with Mr. Mathis and asked if he or anyone else had any human exposure symptoms. He stated not at this time. Mr. Mathis stated he has his sons t-shirt that he was wearing and would place it in a Ziploc bag until I arrived the next day.
3. On July 1, 2017, at approximately 1:00 pm CST I drove past the area of the complainant and alleged spray and noticed a Red Dodge Truck parked along the road to the north of the possible target field. I placed my business card in the truck door for a return phone call to see if this was the possible applicator. I did receive a return phone call at 6:32 pm with a voicemail to call "Owen".
4. On July 2, 2017, I attempted to contact "Owen" at 8:00 am, 8:45 am, and reached him at 9:37 am. Owen identified himself as Owen Gudeman. I identified myself and asked if he was or knew whom the applicator was spraying the field across from the complainants address. He said that it was he and asked, "*is this an emergency?*" I explained my reason for contacting him that there was a human exposure complaint made with OISC regarding the agricultural application made the day prior and needed to know what chemicals he was spraying. Mr. Gudeman then responded by saying "*yeah I'm sure I did drift*". I stated to Mr. Gudeman the complainant obtained video of him making the application and asked what chemicals he was spraying and he responded with saying, "*I sprayed Crossbow*". Mr. Gudeman said he did not have any other information then hurriedly asked me to contact him on another day because I was calling him on "Sunday". I stated to Mr. Gudeman that since he was making an agriculture spray application on Saturday with a human health exposure complaint, I needed to contact him as soon as possible. Mr. Gudeman hurriedly gave me an email address as I stated that I needed him to fill out the Pesticide Investigation Inquiry within 48 hours and return it to me.

5. On July 2, 2017, I arrived at 21801 S. US Hwy 421, La Crosse, Indiana. I spoke to the complainant John Mathis and he stated that he was standing in the driveway with his son and he heard the tractor coming. Mr. Mathis stated he saw the driver making what appeared to be a wand application out of the right side of the tractor while he was driving along the ditch. Mr. Mathis stated that the driver had to have seen them standing there and he just kept driving and spraying. Mr. Mathis stated that he could smell a strong odor and took his son into the house as the applicator just kept driving and spraying. Mr. Mathis stated that he only observed the applicator making an application to the ditch area. Mr. Mathis showed me a video he took of the applicator as he was driving away. The video showed a tractor driving northbound along the ditch of US 421 with a person leaning out spraying the ditch area with a wand applicator. I took swab samples from Mr. Mathis's residence; in addition to the shirt his son was wearing (Figure 3). I also sampled the vegetation and soil from the target area. I submitted all samples to the OISC Residue Lab for analysis.



Figure 1



Figure 2



Figure 3

- Figure 1 is a photograph view from the complainant's driveway looking west towards the target area. This is the approximate location of the complainant's son when the application occurred (red arrow is pointing to the target ditch area)
- Figure 2 is a photograph view from the target ditch area (green arrow showing Location of the complainant's son during the application)
- Figure 3 is the t-shirt the complainant's son was wearing that was taken to OISC Residue Lab for analysis.



Figure 4

- Figure 4 is a Google Earth image of the complainant's property outlined in green and target area outlined in red
- Blue Person – approximate location of son in driveway
- Marker 1-Garage Door Swab
- Marker 2- Brick Pillar Swab
- Marker 3- T-Shirt Swab from Son
- Marker 4- Mail Box Swab
- Marker 5- Roadway Swab adjacent to mailbox
- Red Pin Marker- approximate location of target swab/veg/soil samples
- Yellow Line is approximately 130 feet

6. I received the Pesticide Investigation Inquiry from Mr. Gudeman that states the following:

- Date of Application- 7/1/2017 from 9:00 am to 1:30pm
- Product Used: **Crossbow EPA #62719-260-1381, with the active ingredients of 2,4-D and triclopyr**
- Wind Speed and Direction: 2.5 mph – 8mph W/WSW from field measurement and weather station (see Figure 2)
- Mr. Gudeman also supplied a screen shot of the weather data he used:

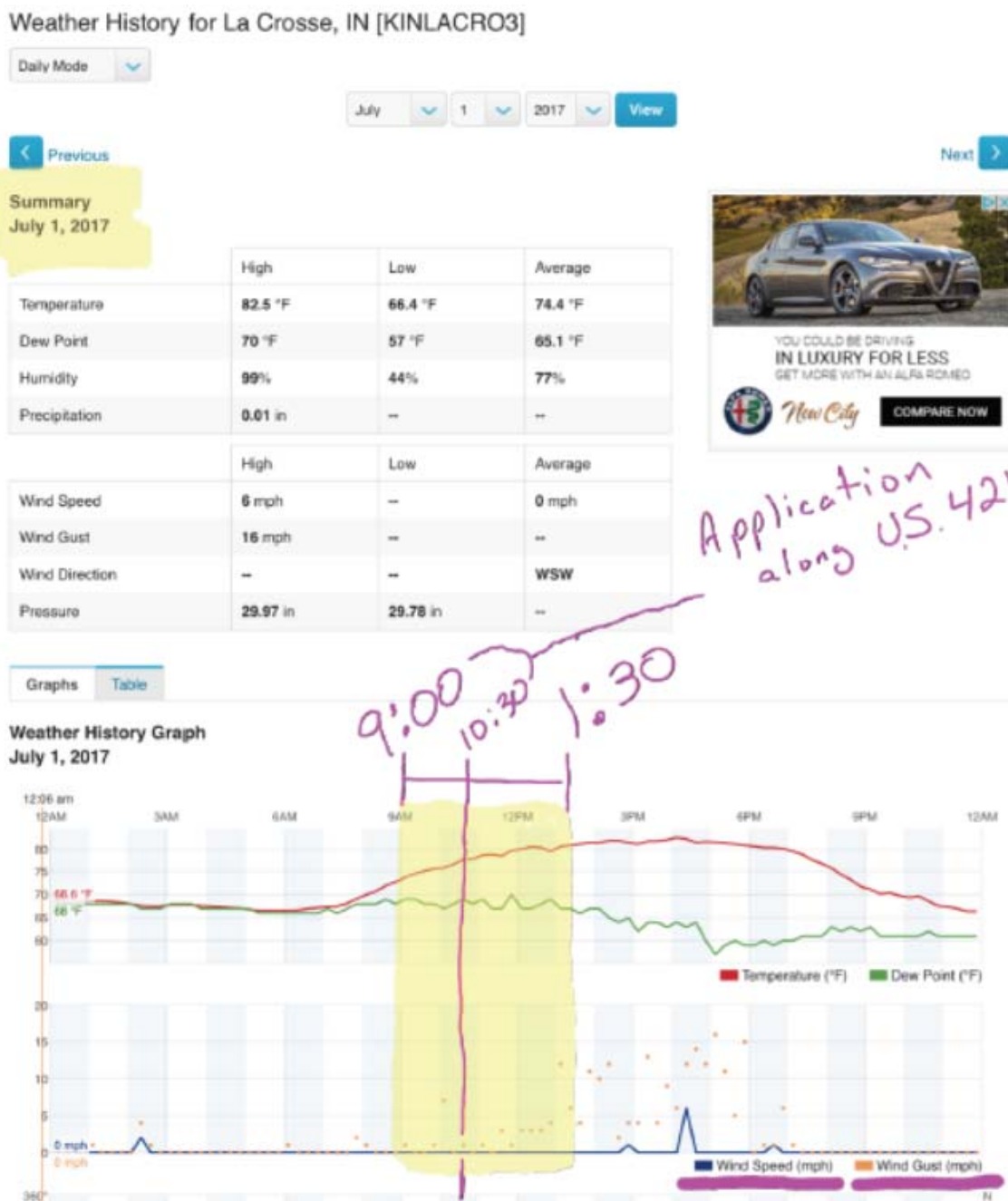


Figure 2

- Figure 2 is the weather data the respondent provided from PWS KINLACRO3
- Mr. Gudeman also provided a one page written statement saying:
"I still do not believe anyone could have possibly felt any drift at the distance this person is said to have been standing."

“I believe someone standing on the opposite side of the road could have maybe smelled the herbicide.”

“South of County Rd. 2100. I was in the field traveling North. The Highway is roughly 4’higher than the field. This helps a great deal in applying without drift, because of the angle at which I spray. It makes the targeted are much closer. I also would have been ‘blocking’ some of the wind as I was between it and the spray.”

-Note: complete copy of the statement is submitted into the case file

7. I triangulated the weather data for the time (approximately 10:00 am when the complainant was drifted on) and date of application from weather underground and it states the following:

KVPZ- Valparaiso, Indiana- Porter County Municipal

8:56 AM	75.9 °F	-	64.0 °F	67%	29.92 in	10.0 mi	WNW	8.1 mph	-	N/A	Clear
METAR KVPZ 011356Z AUTO 29007KT 10SM CLR 24/18 A2993 RMK AO2 SLP131 T02440178 TSNO											
9:56 AM	80.1 °F	81.7 °F	64.0 °F	58%	29.93 in	10.0 mi	West	9.2 mph	-	N/A	Clear
METAR KVPZ 011456Z AUTO 28008KT 10SM CLR 27/18 A2994 RMK AO2 SLP134 T02670178 51013 TSNO											
10:56 AM	81.0 °F	82.2 °F	63.0 °F	54%	29.93 in	10.0 mi	West	12.7 mph	18.4 mph	N/A	Clear
METAR KVPZ 011556Z AUTO 28011G16KT 10SM CLR 27/17 A2994 RMK AO2 SLP133 T02720172 TSNO											
11:56 AM	82.9 °F	84.0 °F	63.0 °F	51%	29.93 in	10.0 mi	West	11.5 mph	18.4 mph	N/A	Mostly Cloudy
METAR KVPZ 011656Z AUTO 27010G16KT 10SM SCT049 SCT060 BKN100 28/17 A2995 RMK AO2 SLP134 T02830172 TSNO											
12:56 PM	84.0 °F	84.5 °F	62.1 °F	47%	29.93 in	10.0 mi	West	15.0 mph	-	N/A	Clear
METAR KVPZ 011756Z AUTO 28013KT 10SM CLR 29/17 A2995 RMK AO2 SLP135 T02890167 10289 20200 53002 TSNO											
1:56 PM	82.9 °F	83.2 °F	60.1 °F	46%	29.94 in	10.0 mi	West	12.7 mph	24.2 mph	N/A	Partly Cloudy
METAR KVPZ 011856Z AUTO 27011G21KT 10SM FEW065 28/16 A2995 RMK AO2 SLP136 T02830156 TSNO											


KRZL- Rensselaer, Indiana- Jasper County

8:55 AM	73.4 °F	-	64.4 °F	73%	29.95 in	10.0 mi	WSW	8.1 mph	-	N/A	Scattered Clouds
METAR KRZL 011355Z AUTO 25007KT 10SM SCT049 SCT100 23/18 A2995 RMK AO2											
9:15 AM	73.4 °F	-	64.4 °F	73%	29.96 in	10.0 mi	West	8.1 mph	-	N/A	Clear
METAR KRZL 011415Z AUTO 27007KT 10SM CLR 23/18 A2996 RMK AO2											
9:35 AM	75.2 °F	-	64.4 °F	69%	29.96 in	10.0 mi	West	8.1 mph	-	N/A	Clear
METAR KRZL 011435Z AUTO 27007KT 10SM CLR 24/18 A2996 RMK AO2											
9:55 AM	75.2 °F	-	64.4 °F	69%	29.96 in	10.0 mi	West	8.1 mph	-	N/A	Clear
METAR KRZL 011455Z AUTO 26007KT 10SM CLR 24/18 A2996 RMK AO2											
10:15 AM	77.0 °F	-	64.4 °F	65%	29.96 in	10.0 mi	NW	6.9 mph	-	N/A	Clear
METAR KRZL 011515Z AUTO 31006KT 10SM CLR 25/18 A2996 RMK AO2											
10:35 AM	77.0 °F	-	64.4 °F	65%	29.96 in	10.0 mi	West	8.1 mph	-	N/A	Scattered Clouds
METAR KRZL 011535Z AUTO 27007KT 10SM SCT025 25/18 A2996 RMK AO2											
10:55 AM	77.0 °F	-	62.6 °F	61%	29.96 in	10.0 mi	WSW	10.4 mph	-	N/A	Clear
METAR KRZL 011555Z AUTO 25009KT 10SM CLR 25/17 A2996 RMK AO2											
11:15 AM	78.8 °F	-	62.6 °F	57%	29.96 in	10.0 mi	West	10.4 mph	-	N/A	Scattered Clouds
METAR KRZL 011615Z AUTO 26009KT 10SM SCT034 26/17 A2996 RMK AO2											
11:35 AM	78.8 °F	-	62.6 °F	57%	29.96 in	10.0 mi	WSW	10.4 mph	-	N/A	Scattered Clouds
METAR KRZL 011635Z AUTO 25009KT 10SM SCT034 26/17 A2996 RMK AO2											
11:55 AM	78.8 °F	-	62.6 °F	57%	29.96 in	10.0 mi	West	8.1 mph	-	N/A	Mostly Cloudy
METAR KRZL 011655Z AUTO 26007KT 10SM SCT037 BKN043 26/17 A2996 RMK AO2											

KOXI- Knox, Indiana-Starke County

8:55 AM	71.6 °F	59.0 °F	64%	29.93 in	10.0 mi	WSW	8.1 mph	-	N/A	Clear
METAR KOXI 011355Z AUTO 25007KT 10SM CLR 22/15 A2993 RMK AO1										
9:15 AM	71.6 °F	59.0 °F	64%	29.93 in	10.0 mi	WSW	6.9 mph	-	N/A	Clear
METAR KOXI 011415Z AUTO 25006KT 10SM CLR 22/15 A2993 RMK AO1										
9:35 AM	73.4 °F	57.2 °F	57%	29.94 in	10.0 mi	West	6.9 mph	-	N/A	Clear
METAR KOXI 011435Z AUTO 28006KT 10SM CLR 23/14 A2994 RMK AO1										
9:55 AM	73.4 °F	55.4 °F	53%	29.94 in	10.0 mi	West	5.8 mph	-	N/A	Clear
METAR KOXI 011455Z AUTO 27005KT 10SM CLR 23/13 A2994 RMK AO1										
10:15 AM	75.2 °F	55.4 °F	50%	29.94 in	10.0 mi	West	10.4 mph	-	N/A	Clear
METAR KOXI 011515Z AUTO 27009KT 10SM CLR 24/13 A2994 RMK AO1										
10:35 AM	77.0 °F	53.6 °F	44%	29.94 in	10.0 mi	West	8.1 mph	-	N/A	Clear
METAR KOXI 011535Z AUTO 26007KT 10SM CLR 25/12 A2994 RMK AO1										
10:55 AM	77.0 °F	53.6 °F	44%	29.95 in	10.0 mi	West	9.2 mph	-	N/A	Clear
METAR KOXI 011555Z AUTO 28008KT 10SM CLR 25/12 A2995 RMK AO1										
11:15 AM	77.0 °F	53.6 °F	44%	29.94 in	10.0 mi	West	9.2 mph	-	N/A	Clear
METAR KOXI 011615Z AUTO 28008KT 10SM CLR 25/12 A2994 RMK AO1										
11:35 AM	77.0 °F	53.6 °F	44%	29.94 in	10.0 mi	West	9.2 mph	-	N/A	Scattered Clouds
METAR KOXI 011635Z AUTO 26008KT 10SM SCT035 SCT041 25/12 A2994 RMK AO1										

8. I received the OISC Residue Laboratory analysis and it shows the following sample results:

Case # 2017/0952			Investigator: M. Rosch	
Sample #	Sample Description	Sample Matrix	Amount Found (ng/swab or ng/clothing)	
			2,4-D	Triclopyr
2017-35-5516	Trip Blank	Swab	BDL	BDL
2017-35-5517	Control sample swab -Rear garage	Swab	4.24	1.09
2017-35-5518	Acetone swab 1- Front garage door	Swab	15.4	12.1
2017-35-5519	Acetone swab 2- Brick pillar /Driveway	Swab	3.81	1.88
2017-35-5520	Acetone swab 3- T-shirt front chest	Swab	0.355	BDL
2017-35-5521	Target field swab - Acetone	Swab	4909*	3068*
2017-35-5522	Target field vegetation - Ditch	Vegetation	NA	NA
2017-35-5523	Target field Soil - Ditch	Soil	NA	NA
2017-35-5524	Swab A4 mail box	Swab	48.9	7.84
2017-35-5525	Swab A5 Roadway asphalt directly in front of box	Swab	137	38.2
2017-35-5526	T-shirt whole	Clothing	513	65.8
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 exceeded calibration curve. Concentration reported as minimum found.				
LOQ =1 ng/swab				
Signature			Date	7/14/17

9. The label violations for **Crossbow EPA #62719-260-1381** are the following:

-Page 8

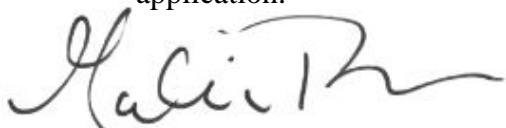
"Do not apply this product in a way that will contact workers or other persons, either directly or through drift."

-Page 10

"Do not apply at wind speeds greater than 10 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 nontarget species, nontarget crops) within 250 feet downwind."

10. There appears to be a violation in this case based on the following:

- Mr. Gudeman made an agricultural pesticide application when the wind direction was blowing at a sensitive area (west winds blowing at complainant's property.)
- The active ingredients found in Mr. Gudeman's agricultural pesticide application were found on the complainant's property and clothing of the complainant's son.
- Mr. Gudeman made an agricultural pesticide application during wind speeds which exceeded the label requirements of 10 mph. This is documented in the weather information submitted by Mr. Gudeman. In addition, the three triangulated weather stations showed wind speeds exceeding 10 mph during the time of Mr. Gudeman's application.



Melissa D. Rosch
Investigator

Date: February 20, 2018

Disposition: Owen D. Gudeman 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 his first violation of similar nature and no restricted use pesticides were involved. Consideration was also given to the fact there was potential for human harm.



George N. Saxton
Compliance Officer

Draft Date: April 19, 2018

Final Date: June 21, 2018

CASE SUMMARY

Case #2017/0985

Complainant: Mike Rohlman
5825 E. CR 1000 N.
Pittsboro, IN 46167
317-413-5182

Respondent:	Nutrien Ag Solutions, Inc. (formerly CPS)	Licensed Business
	Zaccerie Slater	Certified Applicator
	6510 S. SR-39	NEW ADDRESS PER PO 7/29/18
	New Brunswick, IN 46052	6550 S. NEW BRUNSWICK AVENUE
	765-482-2190	LEBANON, INDIANA 46052-9423

1. On July 10, 2017, the Office of Indiana State Chemist (OISC) received a complaint regarding pesticide drift. The complainant, Mike Rohlman, stated approximately one month ago an application was made to the farm field that is adjacent to his property. Within one week after the application, Mr. Rohlman noticed his arborvitaes were injured on the side that faced the farm field. Mr. Rohlman stated he believed the application made to the farm field has injured or killed his arborvitaes.
2. On July 12, 2017, I went to Crop Production Services (CPS) in New Brunswick, Indiana. I met with Ginny Jones, Administrative Coordinator. I requested application records for the application made on June 1, 2017 by Zaccerie Slater to the cornfield east and adjacent to 5825 E CR 1000 N, Pittsboro, Indiana (46167). Furthermore, I left a Pesticide Investigation Inquiry (PII) form for Mr. Slater to complete and return.
3. On July 17, 2017, Ms. Jones returned the application record and PII. The PII listed Zaccerie Slater as the certified applicator. Application was performed on June 1, 2017, between 5:20pm and 5:55pm. Products applied were Roundup PowerMax (EPA Reg. 524-549, active ingredient glyphosate), Princep 4L (EPA Reg. #100-526, active ingredient simazine), and Surestart II (EPA Reg. #62719-679, active ingredients acetochlor, flumetsulam, and clopyralid). The PII listed the wind was 5mph from the northwest.
4. On June 18, 2017, Agent Garrett Creason and I went to 5825 E CR 1000 N Pittsboro, Indiana (46167) for a site investigation and did the following:
 - A. Observed and photographed arborvitaes approximately 5 feet from the cornfield. See figure 1.
 - B. Arborvitaes brown on side facing cornfield. See figure 2.
 - C. Collected a vegetation sample for Purdue's Pest and Plant Diagnostic lab (PPDL) to be visually analyzed.
 - D. Collected composite vegetation sample of the arborvitaes to be analyzed by OISC's Residue Lab. See attached diagram of site.



Figure 1-Proximity



Figure 2-Symptoms on field side

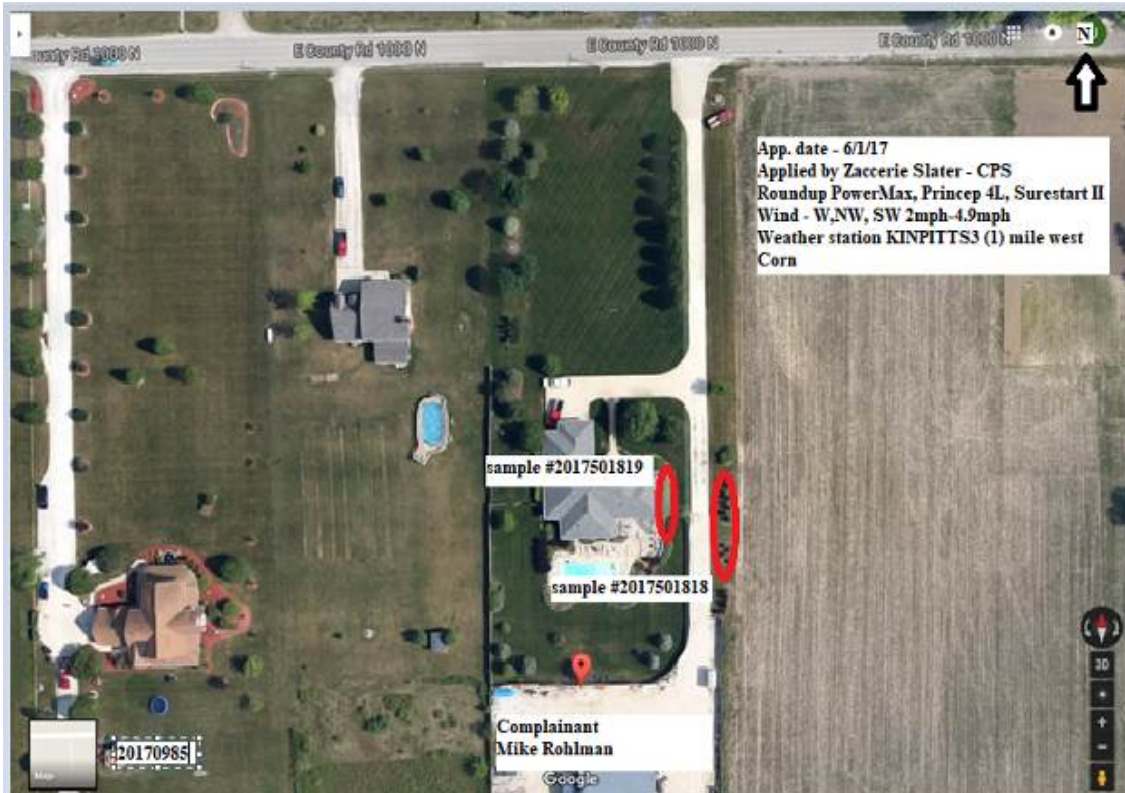


Diagram of site

5. On July 19, 2017, PPDL reported the following:

Diagnosis and Recommendations

Host/Habitat	Mixed Plant material (unspecified)
List of Diagnosis/ID(s)	
Confirmed for Bagworm (<i>Thyridopteryx ephemeraeformis</i>)	
Undetermined for Herbicide injury; Exposure (Abiotic disorder)	
Suspected for Sunscald (Abiotic disorder)	
Undetermined for Cercospora leaf spot (<i>Cercospora</i> sp./spp.)	

Final Report

Necrosis and red/brown discoloration on evergreen trees may be indicative of injury from glyphosate. Twisted petioles and curled leaves on some plants could be indicative of injury from a growth regulator herbicide like clopyralid. Chlorotic leaf margins and areas on some plants could be indicative of injury from glyphosate.

Joe Ikley
 Extension Weed Specialist
 Purdue University
 e-mail - jikley@purdue.edu
 Office - (765) 494-0891

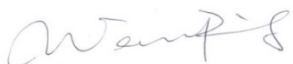
Based on the sample submitted and the photos showing very high numbers of bagworms I suspect a significant portion of the problem on the arborvitae hedge is bagworm damage. They can decimate arborvitae very rapidly if not managed early and could be responsible for most of the damage shown on the shrubs that are defoliated and gray.

The variegated red-twig dogwood has leaf spots that are likely caused by *Cercospora* (or other fungi common on this species). The white areas of the leaves expand at a different rate in the spring often leading to curved or slightly twisted leaves. This is normal for this cultivar. The white areas also often develop necrotic scorched looking tissue when we have a rapid change from cool moist spring conditions to hot weather.

Leaf spotting on the daylily shown in the photos is probably daylily leaf streak, caused by the fungus *Aureobasidium*. Leaf curl and pucker on the tips of boxwood twigs (photos) could be caused by boxwood psyllid or leaf miner. A lab sample would be needed to confirm. The mulberry growing as a weed along the fence has a common tungal leaf spot.

Tom Creswell
creswell@purdue.edu

6. Weather data from Weather Underground, www.wunderground.com, station (KINPITTS3) approximately one (1) mile west of the Rohlman property indicated the wind was out of the west, northwest, and southwest 2mph-4.9mph blowing away from the Rohlman property.
7. On November 2, 2017, OISC's Residue Lab reported the following lab results:

Case #	2017/0985		Investigator		J. Kelley		
Sample #	Sample Description	Amount of Analyte (ppb)					
		Matrix	Glyphosate	AMPA	Simazine	Acetochlor	Flumetsulam
2017-50-1818	Composite vegetation from arborvitae trees	Vegetation	3870	BDL	8.23	BDL	BDL
2017-50-1819	Composite misc. vegetation	Vegetation	BDL	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)	Vegetation		25	125	0.7	1.3	0.3
Signature				Date	11/02/2017		

8. Lab results indicate glyphosate was detected at 3870 parts per billion. Lab results at this level are more indicative of a direct application than drift.

9. Label language for Roundup PowerMax states in part,

8.1 Spray Drift Management

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, [Optional text: GREEN] STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, [Optional text, if applicable: EXCEPT AS DIRECTED FOR USE ON ROUNDUP READY® CROPS,] AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

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.

AVOID DRIFT. USE EXTREME CARE TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHEN APPLYING THIS PRODUCT.



Paul J. Kelley
Investigator

Date: November 8, 2017

Disposition: Zaccerie Slater was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label language regarding off-target drift/application. 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 there was environmental harm.



George N. Saxton
Compliance Officer

Draft Date: January 24, 2018
Final Date: August 31, 2018

CASE SUMMARY

Case #2017/1008

Complainant: Dean Craig
3492 E. 1400 N.
Attica, Indiana 47918
765-426-0147

Respondent: Craig Gamble
Raub Farms
7707 S. 475 W.
Lafayette, Indiana 47909
765-418-0609

Private Applicator

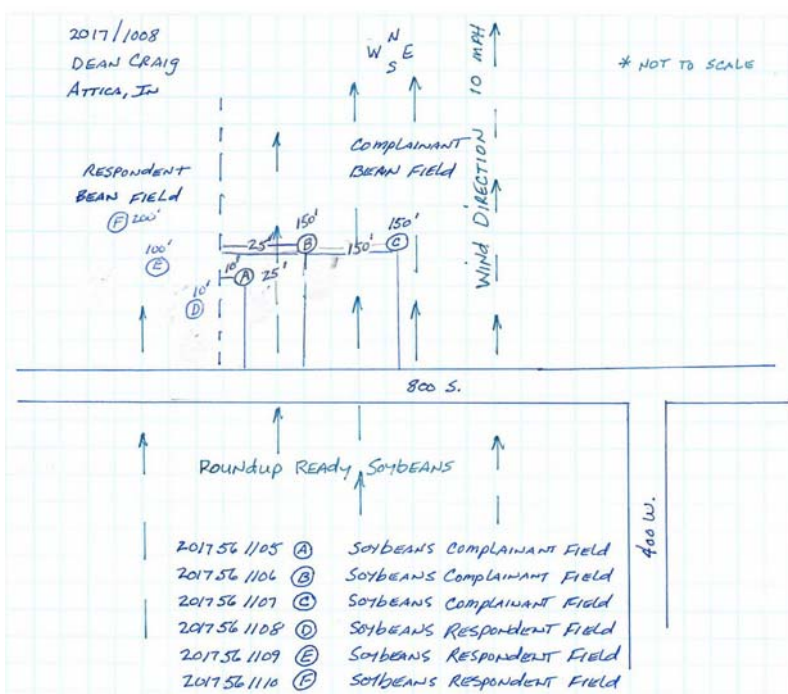
1. On July 13, 2017, the Office of Indiana State Chemist (OISC) received a complaint regarding dicamba drift. The complainant, Dean Craig, stated he first noticed injury on his soybeans on July 11 and he believed the application of dicamba was made about two weeks prior to the injury.
2. On July 17, 2017, I met with the complainant Dean Craig at the investigation site. He told me he had been checking his field from time to time because he knew Raub Farms had planted dicamba-tolerant soybeans. He was worried any dicamba application made by Raub Farms would affect his non-dicamba tolerant roundup ready soybeans. He said he first noticed cupping and puckering to his soybeans on or about July 11. He was not sure when Raub Farms made their dicamba application but he thought it was two weeks prior.
3. During my on-site investigation I did the following:
 - a. I checked the complainant's field. It appeared as though the growth regulator type symptoms of leaf puckering, cupping and strapping were uniform across much of the field. I checked the soybean field to the south of the complainant's field and did not observe any growth regulator symptoms of cupping or puckering to those soybeans.
 - b. I photographed the complainant's soybean field showing the growth regulator symptoms. (see photos below)
 - c. I obtained impacted soybean samples for submission to the Purdue Plant and Pest Diagnostic Lab (PPDL) for analysis.
 - d. I obtained the following environmental samples from the complainant's field and the respondent's field (see diagram below):
 - 2017561105 soybeans 10 feet from respondent's field
 - 2017561106 soybeans 25 feet from respondent's field
 - 2017561107 soybeans 150 feet from respondent's field
 - 2017561108 soybeans 10 feet from complainant's field
 - 2017561109 soybeans 100 feet from complainant's field
 - 2017561110 soybeans 200 feet from complainant's field



Complainant's Field



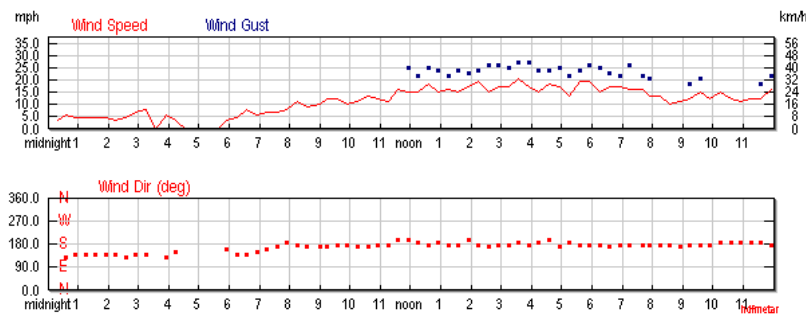
Close Up



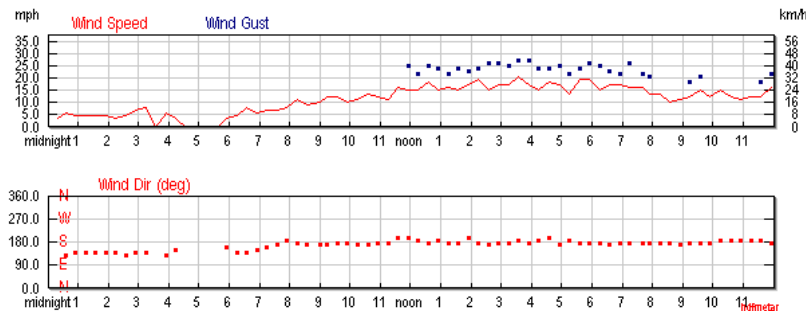
4. I made contact with the respondent Craig Gamble. He told me he is an employee of Raub Farms. He said he made a dicamba application of Engenia (EPA #7969-345; active ingredient: dicamba) and Buccaneer 5 Extra Herbicide (EPA #55467-15; active ingredient: glyphosate). Mr. Gamble completed a Pesticide Investigation Inquiry (PII) with the following information
 - a. Pesticide application made on June 28, 2017 between 9:30am and 10:15 am.
 - b. Application made to soybean field west of complainant's soybean field.
 - c. Application rate of 12.5 ounces per acre of Engenia and 22 ounces of Buccaneer per acre.
 - d. Application made with TTi 11004 nozzles.
 - e. Boom height was set at 24 inches
 - f. Equipment ground speed recorded during application at 11.5 – 12 miles per hour (mph)
 - g. Checked website prior to application? No
 - h. Checked Fieldwatch/Driftwatch prior to application? No
 - i. Surveyed application site prior to application? No
 - j. Buffer used: 70 feet in addition to road and ditch
 - k. Wind speed at time of application recorded at 7 mph from the south
 - l. Certified applicator: Craig Gamble

5. I spoke to Donald Swank of 4643 W. 800 S. of Lafayette, Indiana. Mr. Swank farms the field south of the complainant's field. Mr. Swank told me he planted Roundup Ready soybeans. He also told me Ceres Solutions of West Point, Indiana made all pesticide applications to that farm field.
6. I made contact with Tim Davis, the manager of Ceres Solutions at 5607 W. 400 S. in West Point, Indiana. Mr. Davis told me his company made a pesticide application of Touchdown (EPA #100-1169; active ingredient: glycine) and Select 2EC (EPA #59639-3; active ingredient: clothodim) after July 20, 2017 which would have been after the date of complaint.
7. I checked the weather data for the application site at www.wunderground.com. I checked historical weather data at Danville, Illinois (30 miles west of site), Lafayette, Indiana (10 miles east of site) and Indianapolis, Indiana (50 miles southeast of site). (see table below)

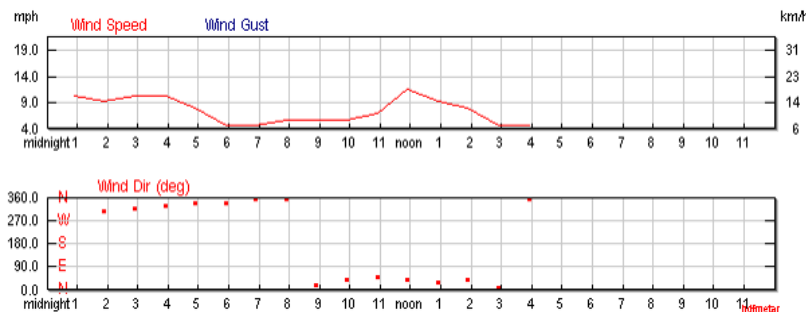
Danville, Illinois



Lafayette, Indiana



Indianapolis, Indiana




- According to the weather information from Danville, Illinois, the wind was blowing 10-15 miles per hour between 9:30am and 10:30am in a northerly direction parallel to the complainant's property.

- According to the weather information from Lafayette, Indiana the wind was blowing 10-12 miles per hour in a northerly direction parallel to the complainant's property.
- According to the weather information from Indianapolis, Indiana, the wind was blowing 5 miles per hour in a southwesterly direction away from the complainant's property.

8. I received the following information from PPDL: "*Cupping and puckering of new trifoliate is indicative of injury from dicamba*"

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

Case # 2017/1008			Investigator: K. Gibson		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-561105	Soybeans - Complainant Field	Vegetation	4.93	BQL	BDL
2017-561106	Soybeans - Complainant Field	Vegetation	2.27	BDL	BDL
2017-561107	Soybeans - Complainant Field	Vegetation	BDL	BDL	BDL
2017-561108	Soybeans - Respondent Field	Vegetation	BDL	9.76	BDL
2017-561109	Soybeans - Respondent Field	Vegetation	BDL	5.71	BDL
2017-561110	Soybeans - Respondent Field	Vegetation	BDL	14.1	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	1	2
Signature			Date	12/7/17	

The Residue Lab results indicated the presence of dicamba in two of the samples in gradient amounts (i.e. amounts found in environmental samples were greater closest to the respondent's field and less farther from the respondent's field) suggesting particle drift.

10. The label for Engenia reads in part, "*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.*"

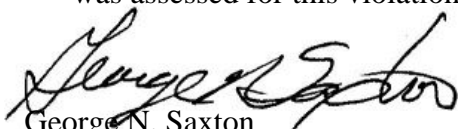


Kevin W. Gibson
Pesticide Investigator

Date: February 14, 2018

Disposition: Craig Gamble 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, a sensitive crop registry and surveying the site before application.

Craig Gamble 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.



George N. Saxton
Compliance Officer

Draft Date: March 22, 2018
Final Date: June 20, 2018

CASE SUMMARY

Case #2017/1034

Complainant: Brian Batton
7611 N. 250 E.
Shelbyville, IN 46176
317-431-0995

Respondent: Brett Mahin
1826 S. CR450 E.
Shelbyville, IN 46176
317-402-2749

Unlicensed

1. On July 17, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to his soybeans. He stated he did not know what chemical was applied to the neighboring cornfield that allegedly drifted to his soybeans.
2. On July 18, 2017, I spoke with Brian Batton who reported his non dicamba-tolerant (DT) soybeans developed cupped leaves after an adjacent cornfield was sprayed, possibly with a tank mix containing dicamba, about two weeks prior. Brett Mahin reportedly farmed the cornfield across the road to the west of the beans but the applicator was unknown.
3. On July 19, 2017, I met with Mr. Batton at his field on the east side of CR500E in Shelby County. Chuck Smith, another grower who claimed to have injury to his bean on the north side of the target field was also present (see Case#2017/1051). Mr. Batton indicated he knew the OISC was busy but he wanted to document the incident in case there was a yield loss. He reported his field was sprayed with Roundup (glyphosate) and 2,4-D for burndown and then sprayed with Flexstar GT (glyphosate and fomesafen) after planting.
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 Batton soybean field. The bean field was directly across CR500E to the east of the target cornfield (approximately 45 feet between crops).
 - 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 in the Batton field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba.
 - c) Collected soybean plant samples from the Batton bean field for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue.
 - d) Collected plant samples from soybeans exhibiting symptoms approximately 40 feet into the Batton field. Collected plant samples from dead weeds approximately 20 feet into the target cornfield farmed by Mr. Mahin. Those samples were submitted to the OISC Residue lab for analysis.



Fig.1 Aerial photo of fields



Fig.2 Soybeans and target corn field



Fig.3 Impacted soybean plant

5. On July 21, 2017, I spoke with Brett Mahin and informed him of the complaint. He indicated several growers in the area, including Mr. Batton, had contacted him the week prior about possible off-target movement from his field. Mr. Mahin confirmed he sprayed the field with Roundup (glyphosate) and Engenia (dicamba). He reportedly planned to apply Status (dicamba and diflufenzopyr) but instead was sold Engenia when his supplier did not have Status. Mr. Mahin later completed a Pesticide Investigation Inquiry and provided the following information for his application:
 - a. Application date & time: June 27, 2017, 3pm-6pm
 - b. Target field: directly west of the Batton bean field, across CR500E
 - c. Application rate of Engenia (EPA Reg. #7969-345): 6.4 oz. per acre
 - d. Adjuvants: Hydrate Plus (surfactant)
 - e. Nozzles: AIXR Tee Jet brown; 40 PSI
 - f. Winds: 4-10 mph from northwest (toward Batton bean field)
 - g. Applicator: Brett Mahin (not licensed at time of application)
6. I checked recorded wind data at www.wunderground.com for the closest official weather station to the application site for June 27, 2017. Winds at Shelbyville Municipal Airport, approximately seven miles from the field, were recorded as follows:

3:53pm from west-northwest (blowing toward the Batton field) at 6.9mph
 4:53pm variable at 3.5mph
 5:53pm calm
7. The PPDL report stated, *“Cupping and puckering on new soybean leaves is indicative of injury from dicamba.”* It further stated, *“Septoria brown spot was noted on lower leaves but there was no significant disease. Roots and stems appeared healthy.”*
8. The OISC Residue Lab analyzed the plant samples for dicamba and its breakdown products (5-OH dicamba and DCSA) collected from the Batton bean field and the target cornfield and reported the following:

Case #	2017/1034			Investigator		A. Roth	
Sample #	Sample Description	Amount of Analyte (ppb)					
		Matrix	Dicamba	5-OH Dicamba	DCSA	Glyphosate **	AMPA **
2017-47-4083	Non-target beans-Batton	Vegetation	2.68	BDL	BDL	Not tested	Not tested
2017-47-4084	Target weeds	Vegetation	*3332	*496	88.9	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

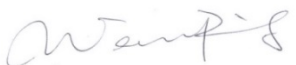
Product applied= Roundup and Engenia

Application=6/27/17

Sampling=7/20/17

* minimum concentration reported due to amount exceeding calibration curve

** Roundup was applied in both target and non-target fields. Not meaningful to test for glyphosate.

LOQ (ppb)	Vegetation	2.00	2.00	1.00	Not tested	Not tested
Signature				Date	9/20/2017	

9. *The Engenia base label states, “Avoid potential adverse effects to nontarget areas by maintaining a setback between the application area and the closest downwind edge of sensitive terrestrial habitats (such as forested areas, grasslands, hedgerows, riparian areas, shelter belts, shrub lands, and woodlots) and sensitive crop plants.”*

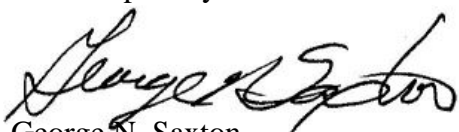
“Sensitive Areas: Engenia should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened and endangered species, or sensitive crop plants) is minimal (e.g. when the wind is blowing away from sensitive areas).



Andrew R. Roth
Investigator

Date: January 22, 2018

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



George N. Saxton
Compliance Officer

Draft Date: April 18, 2018

Final Date: June 21, 2018

CASE SUMMARY

Case #2017/1035

Complainant: Gary Holscher
3820 Petersburg Road
Wheatland, Indiana 47597
321-626-7231

Respondent: Dan Osborne
Don Osborne Farm, Inc.
5395 E. Osborne Road
Vincennes, Indiana 47591
812-881-7215

Private Applicator

1. On July 17, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural herbicide drift to his soybeans. Mr. Holscher's complaint stated:

- *"I witnessed Osbourne's spraying Dicamba under windy conditions (20+mph). The winds were strong from the south ahead of a sagging cold front approaching from the north. My adjoining field of liberty link soybeans received major damage and pending large yield loss. Spraying under those conditions was irresponsible and blatantly wrong, demonstrating the lack of judgement necessary to apply damaging chemicals and fulfill their licensing agreement. You should remove the authority for them or their business entity to apply herbicides and administer an appropriate monetary penalty. Additionally, you should approach Monsanto about the violation of their license agreement.*

The State of Indiana should never have approved the massive employment of a highly volatile chemical with major reactive properties. With Monsanto's market share, it was an obvious formula for disaster. I have a right to plant crops of my choosing and not incur damage from an invasive chemical company's product. Indiana is suppose to be protecting that right, not degrading it.

If the state persists in employment of Dicamba, companies should place significant bonds with the Indiana Chemist Office to be administered directly to impugned parties. Large bonds should be required from the see companies, chemical companies and commercial applicators (have had damage from contaminated sprayers).

The bottom line is Monsanto needed a quick fix for its roundup resistance problem to salvage its sale to a Non-American company. It appears it spent enough money to accomplish its goal, to everyone's detriment."

2. On July 20, 2017, I met the complainant Mr. Holscher to conduct an on-site physical investigation of the alleged off-target pesticide movement incident reported to OISC. Mr. Holscher advised me that he believed his soybean field had been damaged by an application made by the respondent Dan Osborne. During my on-site investigation, I did observe

cupping and curling of the complainant's soybean leaves that spanned the entire length of his field on lucky point road (outlined in green on map). I took swab, vegetation, and soil samples from both the complainant's field and the target field to the south and submitted them to the OISC Pesticide Residue Laboratory for analysis. I also took vegetation samples to the Purdue Plant and Pest Diagnostic Laboratory (PPDL) for analysis.



Figure 1



Figure 2

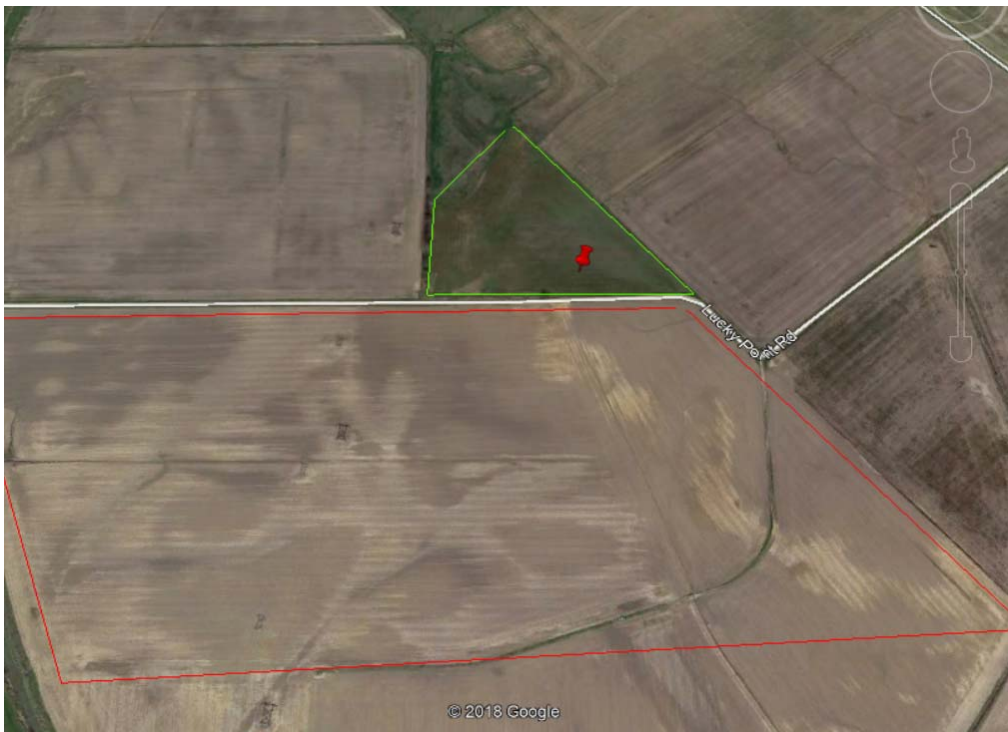


Figure 3

- Figure 1 and 2 are photographs of the symptoms Mr. Holskar described to his soybean field
- Figure 3 is a Google Earth image of the complainant's property outlined in green, target field for Osborne is outlined in red.

3. I received the application records from Don Osborne Farm, Inc. which state the following:

- Application Date & Time: June 19, 2017 8:00 am to 11:30am
- Target Field: soybean field outlined in red to the south of the complainant
- Pesticides:
 - **Xtendimax EPA #524-617, Active ingredient Dicamba, Diglycolamine Salt 42.8%**
 - **Roundup Weather Max EPA #524-537, Active Ingredient Glyphosate 48.8%**
 - **Warrant EPA #524-591, Active Ingredient Acetochlor 67%**
- Application Rate: Xtendimax 22oz/A, Roundup Weather MAX 32oz/A, Warrant 48oz/A
- Adjuvants: Reign 2qt/100 gal water, Strikeforce 2qt/100 gal water
- Nozzles: John Deere 4030R, TeeJet TTI11004, 15” spacing, 25 psi
- Boom Height: 20”
- Ground Speed: 10-11 mph
- Winds: 7mph W, applicator estimate checked as well as weather station- note *“Day of application-weather apps checked Recorded past data- Davies Co, 7mph West”*
- Applicator: Dan Osborne
- Certified Supervisor: Don Osborne
- Buffer left was 60 feet
- Checked registrant website prior to application: no
- Checked Field Watch before application: no
- Surveyed application site before application: yes
- *Additional note- included with records was weather data from KDCY in Washington Indiana which is NW of the location- approximately 16 miles

4. I checked weather underground for June 19, 2017 from 8:00am to 11:30am and it shows the following:


- For the June 19, 2017 application (field outlined in red)

8:35 AM	69.8 °F	-	60.1 °F	71%	29.91 in	10.0 mi	West	6.9 mph	-	N/A	Clear
METAR KDCY 191235Z AUTO 27006KT 10SM CLR 21/16 A2991 RMK AO2 T02100156											
8:55 AM	70.9 °F	-	60.1 °F	69%	29.92 in	10.0 mi	WSW	6.9 mph	-	N/A	Clear
METAR KDCY 191255Z AUTO 25006KT 10SM CLR 22/16 A2992 RMK AO2 T02160156											
9:15 AM	72.1 °F	-	60.1 °F	66%	29.92 in	10.0 mi	West	5.8 mph	-	N/A	Clear
METAR KDCY 191315Z AUTO 28005KT 10SM CLR 22/16 A2992 RMK AO2 T02230156											
9:35 AM	73.2 °F	-	60.1 °F	63%	29.92 in	10.0 mi	WSW	6.9 mph	-	N/A	Clear
METAR KDCY 191335Z AUTO 25006KT 10SM CLR 23/16 A2992 RMK AO2 T02290156											
9:55 AM	73.9 °F	-	58.8 °F	59%	29.93 in	10.0 mi	West	4.6 mph	-	N/A	Mostly Cloudy
METAR KDCY 191355Z AUTO 27004KT 10SM BKN080 23/15 A2993 RMK AO2 T02330149											
10:15 AM	74.5 °F	-	59.7 °F	60%	29.92 in	10.0 mi	WSW	5.8 mph	-	N/A	Mostly Cloudy
METAR KDCY 191415Z AUTO 25005KT 10SM BKN080 24/15 A2992 RMK AO2 T02360154											
10:35 AM	75.0 °F	-	59.9 °F	59%	29.92 in	10.0 mi	West	3.5 mph	-	N/A	Mostly Cloudy
METAR KDCY 191435Z AUTO 27003KT 10SM SCT080 BKN085 24/16 A2992 RMK AO2 T02390155											
10:55 AM	76.5 °F	-	59.4 °F	55%	29.93 in	10.0 mi	West	8.1 mph	-	N/A	Scattered Clouds
METAR KDCY 191455Z AUTO 26007KT 10SM SCT080 SCT085 25/15 A2993 RMK AO2 T02470152											
11:15 AM	77.7 °F	-	59.2 °F	53%	29.93 in	10.0 mi	West	6.9 mph	-	N/A	Clear
METAR KDCY 191515Z AUTO 27006KT 10SM CLR 25/15 A2993 RMK AO2 T02540151											
11:35 AM	78.6 °F	-	58.5 °F	50%	29.94 in	10.0 mi	West	9.2 mph	-	N/A	Scattered Clouds
METAR KDCY 191535Z AUTO 27008KT 10SM SCT044 SCT060 26/15 A2994 RMK AO2 T02590147											

5. I received the PPDL final report that states the following:

“Cupping and Puckering on new trifoliate is indicative of injury from dicamba.”
“Some leaf spotting was present but no significant disease.”

6. I received the OISC Pesticide Residue Laboratory final report which states the following:

Case #	2017/1035		Investigator				M. Rosch	
Sample #	Sample Description	Amount of Analyte						
		Matrix	Acetochlor	Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2017-35-5606	Trip blank	Swab	N/A	N/A	N/A	N/A	N/A	N/A
2017-35-5607	Control swab – Offsite - Acetone	Swab	N/A	N/A	N/A	N/A	N/A	N/A
2017-35-5608	Control Veg - off site	Veg	N/A	BDL	BDL	BDL	BDL	BDL
2017-35-5609	Acetone swab veg 1 - Least impacted	Swab	N/A	N/A	N/A	N/A	N/A	N/A
2017-35-5610	Vegetation sample 1 – Beans - 180 ft. from TF	Veg	N/A	BQL	BDL	BDL	BDL	BDL
2017-35-5611	Acetone swab - veg 2	Swab	N/A	N/A	N/A	N/A	N/A	N/A
2017-35-5612	Veg sample 2 – Beans - 120 ft. from TF	Veg	N/A	BDL	BDL	BDL	BDL	BDL
2017-35-5613	Acetone swab Veg 3 -Most	Swab	N/A	N/A	N/A	N/A	N/A	N/A
2017-35-5614	Veg sample 3 - Beans - 40 ft. from TF	Veg	N/A	3.74	BDL	BDL	BDL	BDL
2017-35-5615	TF acetone swab -Buffer - 5 ft. into field	Swab	N/A	N/A	N/A	N/A	N/A	N/A
2017-35-5616	TF veg sample -Buffer	Veg	N/A	BDL	4.54	BDL	740	BDL
2017-35-5617	TF Soil sample -Buffer	Soil	22.7	N/A	N/A	N/A	N/A	N/A
2017-35-5618	TF 2 Acetone swab - 100 ft. from roadway	Swab	N/A	N/A	N/A	N/A	N/A	N/A
2017-35-5619	TF Veg -2	Veg	N/A	BQL	976*	BDL	2204	283
2017-35-5620	TF soil -2	Soil	21.7	N/A	N/A	N/A	N/A	N/A
2017-35-5621	Soil sample -1 (least)	Soil	25.0	N/A	N/A	N/A	N/A	N/A
2017-35-5622	Soil sample -2	Soil	27.2	N/A	N/A	N/A	N/A	N/A
2017-35-5623	Soil sample -3 (most)	Soil	17.8	N/A	N/A	N/A	N/A	N/A
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								
N/A = Not Analyzed								
*Concentration exceeded calibration curve and minimum amount reported								
LOQ (ppb)	Vegetation		N/A	2	0.4	4	10-25	50-125
LOQ (ppb)	Soil		0.67	N/A	N/A	N/A	N/A	N/A
Signature				Date		1/10/2018		

7. The label violations for this case are the following:

- **Xtendimax EPA #524-617, Active ingredient Dicamba, Diglycolamine Salt 42.8%**

-Page 3 of the supplemental label states:

“The applicator must check www.xtendimaxapplicationrequirements.com to determine if the DRA is listed and check with the DRA manufacturer to determine if the DRAs will work effectively with the approved spray nozzle, spray pressure, and the desired spray solution”

-Page 4 of the supplemental label states:

"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"

-Page 5 of the supplemental label states:

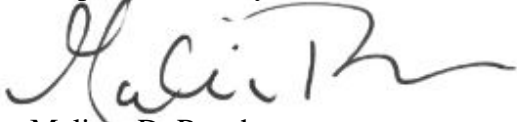
"Do not apply product when wind is blowing toward non-target sensitive crops."

"The applicator must also consult sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site"

8. There appears to be a violation in this case based on the following:

- Mr. Osborne made an agricultural pesticide application when the winds shifted from the W to WSW, which would have been blowing toward the complainant's non-target sensitive crops.
- The OISC Pesticide Residue Laboratory was able to detect the active ingredient in the complainant's vegetation.
- Mr. Osborne did not check the sensitive crop registry prior to application.
- Mr. Osborne did not check the registrant's website prior to application.

9. I did also survey the field to the west of the complainant, which was sprayed with the same active ingredients as the respondent. This field was eliminated as a possible target because the agricultural pesticide application date was the same as the date when the complainant planted his soybean field.



Melissa D. Rosch
Investigator

Date: March 1, 2018

Disposition: Dan Osborne 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 sensitive crop registry before application.

Dan Osborne 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: April 18, 2018

Final Date: June 21, 2018

CASE SUMMARY

Case #2017/1041

Complainant: Jim Musselman
7533 N. 100 W.
Lucerne, Indiana 46950
574-721-4493

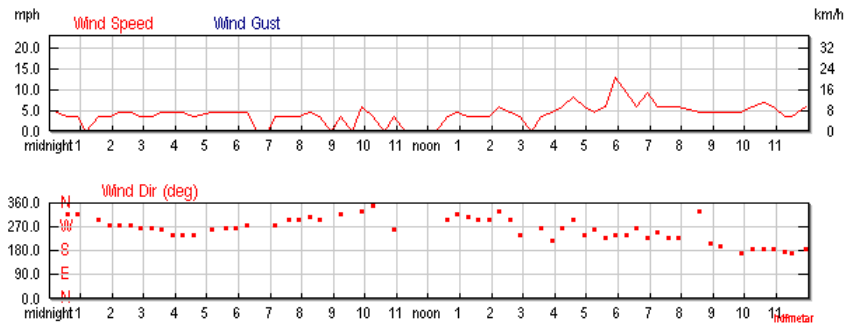
Respondent: Tony Herd
Herd Agri-Enterprises, Inc.
5105 N. 200 W.
Logansport, Indiana 46947
574-889-3955

Private Applicator

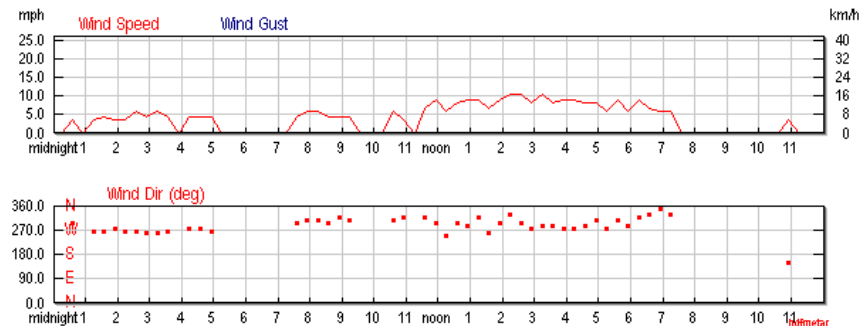
1. On July 17, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 24, 2017, I met with the complainant at the site of the investigation located at 100 west and State Road 16 in Cass county Indiana. Mr. Musselman explained he believed the soybeans he planted west of 100 west and east of 100 west had been affected by a dicamba application made by Mr. Herd to his field south of State Road 16. Mr. Musselman told me he planted Roundup Ready soybeans in the field east of 100 west. He said he planted Liberty Link soybeans in the field west of 100 west.
3. During my on-site investigation, I did the following:
 - a. I checked both of the complainant's soybean fields. It appeared both fields had been uniformly impacted by growth regulator-type symptoms. I observed leaf cupping and puckering in both fields. I checked the respondent's field. I observed no growth regulator-type symptoms to the soybeans plants.
 - b. I photographed the complainant's soybeans in both fields showing the growth regulator-type symptoms. (see photos below)
 - c. I collected impacted soybean plants from both fields for submission to the Purdue Plant and Pest Diagnostic Lab (PPDL) for analysis.
 - d. I collected the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis (see diagram below):
 - 2017561123 complainant soybeans 100 yards into field
 - 2017561124 complainant soybeans 50 yards into field
 - 2017561125 complainant soybeans 10 yards into field
 - 2017561126 complainant soybeans 10 yards into field
 - 2017561127 complainant soybeans 100 yards into field
 - 2017561128 respondent soybeans 10 yards into field

6. I checked historical weather data at www.wunderground.com for June 27, 2017 for the application site. I obtained historical information for Logansport Airport (8 miles south of application site), Fulton County Airport (18 miles northeast of application site) and LaPorte Municipal Airport (55 miles northwest of application site). (see tables below)

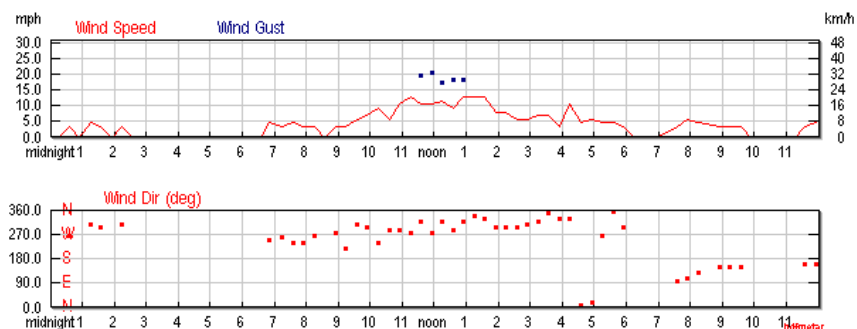
June 27, 2017
Logansport Municipal Airport
Logansport, Indiana
8 miles south



Fulton County Airport
Rochester, Indiana
18 miles Northeast




LaPorte Municipal Airporthe
LaPorte, Indiana
55 miles Northeast



- According to the weather information from Logansport Municipal Airport, the wind was blowing 0-5 mph from the west in an easterly direction parallel to the complainant's field
- According to the weather information from Fulton County Airport, the wind was blowing 5 mph from the northwest in a southeasterly direction away from the complainant's field
- According to the weather information from LaPorte Municipal Airporthe, the wind was blowing 0-5 mph from the west in an easterly direction parallel to the complainant's field.


7. I received the following information from PPDL: “*Cupping and puckering on the new trifoliate is indicative of injury from dicamba*”
8. I received the following analysis results from the OISC Lab:

Case # 2017/1041			Investigator: K. Gibson		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-561123	Complainant soybeans- 100 yds	Vegetation	BDL	BDL	BDL
2017-561124	Complainant soybeans- 50 yds	Vegetation	BDL	BDL	BDL
2017-561125	Complainant soybeans- 10 yds	Vegetation	4.09	BQL	BDL
2017-561126	Complainant soybeans- 10 yds	Vegetation	BDL	BDL	BDL
2017-561127	Complainant soybeans- 100 yds	Vegetation	BQL	BDL	BDL
2017-561128	Respondent soybeans- 10 yds	Vegetation	BDL	0.741	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 = 2 ppb Dicamba LOQ = 0.4 ppb DCSA LOQ = 20 ppb 5-OH Dicamba					
Signature			Date	12/3/2017	

The Residue Lab results indicated the presence of dicamba in only one of the samples in the complainant's fields. Weather data and the applicator's report of “calm” conditions at time of application and lab results suggested it was not drift. Applicator failed to check the Engenia web site prior to application; he failed to check the Fieldwatch/Driftwatch web site prior to application. Applicator made the application when weather conditions were “calm” as supported by weather data.

9. The label for **Engenia** reads in part,

- *The applicator must also consult sensitive crop registries to locate nearby sensitive areas where available*
- *“**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 . . .”*
- *Wind Speed < 3 mph Only apply Engenia if steps have been taken to confirm that a temperature inversion is not present.”*


Kevin W. Gibson
Pesticide Investigator

Date: February 27, 2018

Disposition: Tony Herd 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 sensitive crop registry before application.

Tony Herd 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 in winds less than three miles per hour. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: March 26, 2018

Final Date: June 20, 2018

CASE SUMMARY

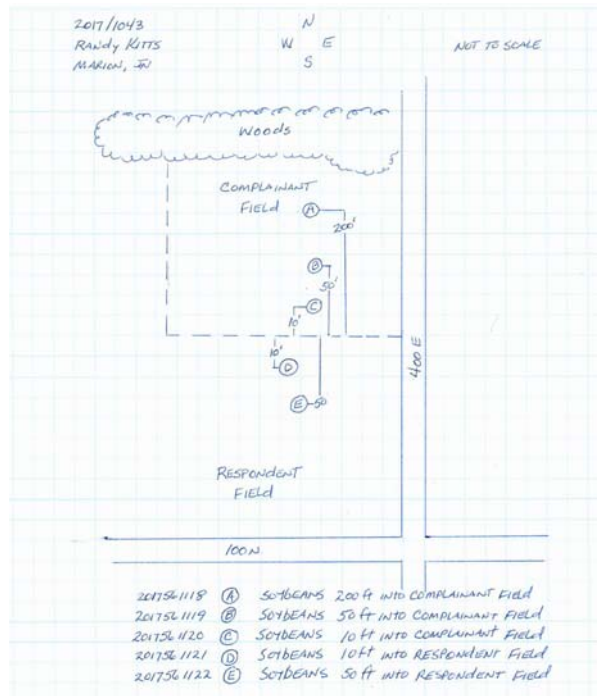
Case #2017/1043

Complainant: Randy Kitts
2102 N. 700 E.
Marion, Indiana 46952
765-618-5631

Respondent: Greg Comer
Glessner Farms
6729 W. 250 S.
Swayzee, Indiana 46586
765-618-2012

Private Applicator

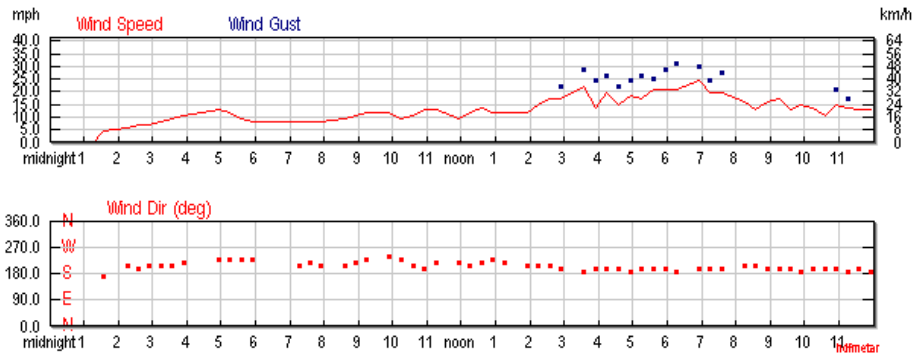
1. On July 18, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his beans.
2. On July 21, 2017, I met with the complainant at the site of the suspected dicamba drift, county road 400 east and county road 100 north in Marion, Indiana. He told me he checked his field from time to time and recently noticed some cupping and puckering to his soybeans. He believed it was due to a dicamba application to the field immediately south of his field. He said he planted Roundup Ready soybeans. He had not made a pesticide application to his field at the time of my site visit.
3. During my on-site investigation, I did the following:
 - a. I checked the complainant's field. It appeared to be impacted by growth regulator-type symptoms of leaf puckering and cupping. The soybeans closest to the respondent field appeared to be impacted the most. I also checked the respondent's soybean field to the south of the complainant's field. Those soybeans did not exhibit any growth regulator-type symptoms.
 - b. I photographed the complainant's soybeans showing the growth regulator-type symptoms.(see photos below)
 - c. I collected impacted soybean plant samples for submission to the Purdue Plant and Pest Diagnostic Lab (PPDL) for analysis.
 - d. I collected the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis. (see diagram below)
 - 2017561118 soybean plants 200 feet into complainant's field
 - 2017561119 soybean plants 50 feet into complainant's field
 - 2017561120 soybean plants 10 feet into complainant's field
 - 2017561121 soybean plants 10 feet into respondent's field
 - 2017561122 soybean plants 50 feet into respondent's field



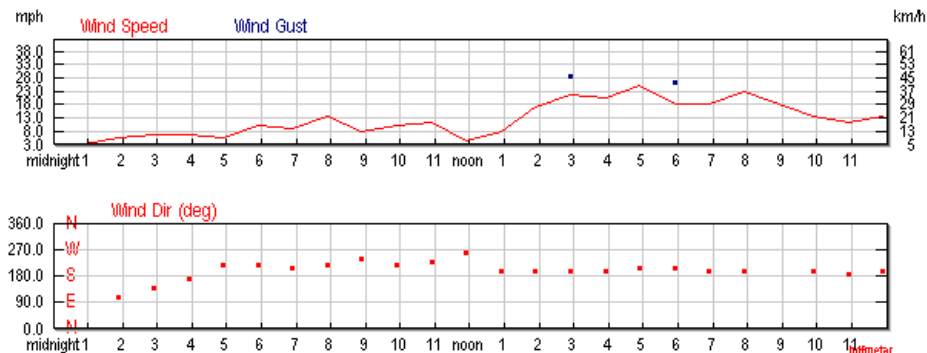
4. I made contact with Mark Glessner of Glessner Farms. He confirmed one of his employees, Greg Comer, made a pesticide application to the field next to the complainant's field. He agreed to provide a completed Pesticide Investigation Inquiry (PII) concerning the application.
5. I received a completed PII from Greg Comer. According to the completed PII, Mr. Comer made an application of **Roundup PowerMax** (EPA #524-549; active ingredient: glycine) and **Xtendimax** (EPA #524-617; active ingredient: dicamba). The completed PII also contained the following:
 - a. Pesticide application was made on **June 22, 2017** between **8:30am and 9:00am**
 - b. Application was made to the field south of the complainant's field.
 - c. Application rate of **22 ounces per acre of Xtendimax and 22 ounces per acre of Roundup Powermax**
 - d. Application was made with **TTi 11004 nozzles**
 - e. Boom height was set at **24 inches**
 - f. Equipment ground speed was recorded at **13 mph** at time of application
 - g. Checked web-site prior to application: **Yes**
 - h. Checked Fieldwatch/Driftwatch prior to application: **Yes**
 - i. Surveyed application site prior to application: **Yes**
 - j. Buffer used: **No**
 - k. Wind speed at time of application was recorded at **10 mph** from the **south to southwest**
 - l. Certified applicator: **Greg Comer**

6. I checked historical weather data at www.wunderground.com for June 22, 2017 at the application site. I obtained the historical information for Marion Indiana Municipal Airport (approximately 4 miles west of site), Delaware County-Johnson Airport of Muncie, Indiana (approximately 30 miles southeast of site) and Fort Wayne, Indiana International Airport (approximately 40 miles northeast of the site) (see tables below)

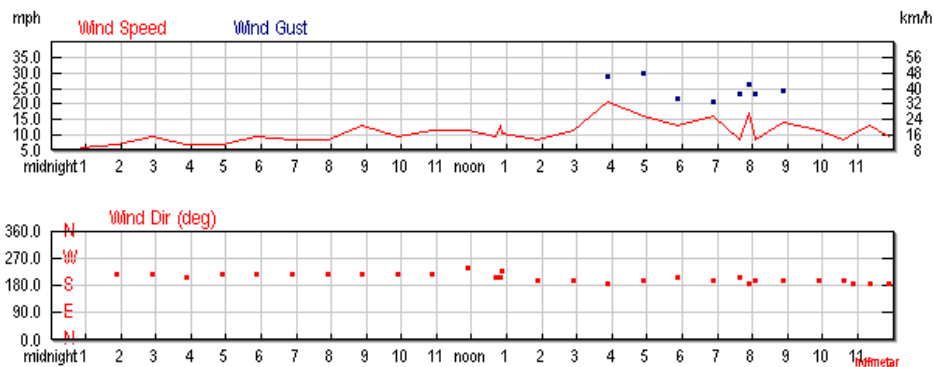
**Marion Municipal Airport
4 miles west**



**Fort Wayne International Airport
40 miles northeast**




**Delaware County-Johnson Airport Muncie, Ind
30 miles southeast**



- According to the weather information from Marion Indiana Municipal Airport, the wind was blowing 12-13 mph from the southwest in a northeastern direction toward the complainant's field
- According to the weather information from Fort Wayne Indiana International Airport, the wind was blowing 8-13 mph from the southwest in a northeastern direction toward the complainant's field
- According to the weather information from Delaware County-Johnson Airport in Muncie Indiana, the wind was blowing 10-12 mph from the southwest in a northeastern direction toward the complainant's field.

7. I received the following information from PPDL: "Cupping and puckering on new trifoliate is indicative of injury from dicamba".

8. I received the following information from OISC Residue Lab:

Case # 2017/1043			Investigator: K. Gibson		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-561118	Soybeans complainant field 200 ft	Vegetation	BDL	BDL	BDL
2017-561119	Soybeans complainant field 50 ft	Vegetation	BDL	BDL	BDL
2017-561120	Soybeans complainant field 10 ft	Vegetation	BDL	3.60	BDL
2017-561121	Soybeans respondent field 10 ft	Vegetation	BDL	3.21	BDL
2017-561122	Soybeans respondent field 50 ft	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 = 2 ppb Dicamba / LOQ = 0.4 ppb DCSA / LOQ = 20 ppb 5-OH Dicamba					
Signature			Date	12/3/2017	

The Residue Lab results indicated the presence of dicamba in one of the complainant's plant samples approximately four weeks after the respondent's dicamba application. Weather data from three weather stations indicated the wind was blowing from the respondent's field toward the complainant's field at the time of application suggesting particle drift on the complainant's field.

9. The label for **Xtendimax** reads in part:

- **"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"
- **"DO NOT APPLY** this product when the wind is blowing toward adjacent commercially grown dicamba sensitive crops"



Kevin W. Gibson
Pesticide Investigator

Date: February 23, 2018

Disposition: Greg Comer 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.



George N. Saxton
Compliance Officer

Draft Date: March 23, 2018

Final Date: June 7, 2018

CASE SUMMARY

Case #2017/1072

Complainant: Jill Markiewicz
4393 E 50 N
LaPorte, Indiana 46350
765-438-4340

Respondent: Milhon Air, Inc.
Andrew Briggs
2151 Centerton Road
Martinsville, Indiana 46151
317-831-7464

**Licensed Business
Licensed Applicator**

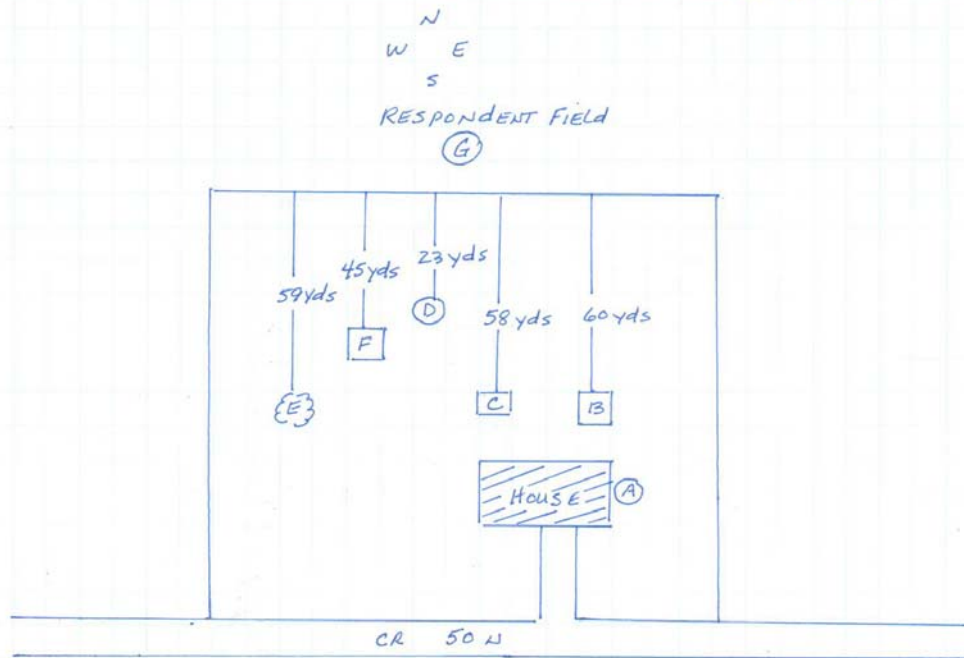
1. On July 24, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report agricultural pesticide drift to her and her property. She stated this was from an aerial pesticide application. She also stated she had clothing for the investigator with the understanding the clothing would not be returned to her.
2. On July 26, 2017, I met with and issued a Notice of Inspection (NOI) to the complainant, Jill Markiewicz. Ms. Markiewicz explained to me on July 21 she was in her back yard. At approximately 12 noon, she saw a plane coming from the south in a northerly direction from atop her house. She said she tried to get back into the house before the plane came over her. Instead, she told me she felt the vapor trail coming from the plane before she could return inside. She immediately contacted Eugene Matzat from the LaPorte County Extension Office. Mr. Matzat told her to contact OISC to make a report. She said she experienced some eye irritation. After to speaking to Mr. Matzat, she showered. She said she felt no other exposure effects. At the direction of an OISC agent, she bagged her clothes for evidence.
3. I took photographs and obtained samples from the complainant's property for submission to the OISC Residue Lab for analysis. (See sample list, photographs and diagram below)

2017561132	Trip Swab Blank	2017561133	Control Swab
2017561134	Camper Swab	2017561135	Swingset Swab
2017561136	Tire Rim Swab	2017561137	Maple Vegetation
2017561138	Garden Vegetation	2017561139	Cornfield Vegetation
2017561140	Complainant Clothing		



2017 / 1072
JILL MARKIEWICZ
LA PORTE, INDIANA

* NOT TO SCALE



2017561132	TRIP BLANK SWAB
2017561133	A CONTROL SWAB (GARAGE DOOR WINDOW)
2017561134	B CAMPER SWAB
2017561135	C SWINGSET SWAB
2017561136	D TIRE RIM SWAB
2017561137	E MAPLE TREE VEGETATION
2017561138	F GARDEN VEGETATION
2017561139	G CORNFIELD VEGETATION
2017561140	COMPLAINANT CLOTHING

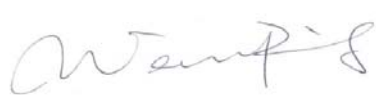
- I discovered the aerial pesticide application was made by Andrew Briggs of Milhon Air, Inc. from Martinsville, Indiana. I made contact with Mr. Briggs. He told me he made the pesticide application through Crop Production Service in Valparaiso, Indiana. He further said he did not notice anyone outside in the complainant's backyard when he was making the pesticide application.
- I obtained the pesticide application record from Crop Production Services. According to the record, an application of Headline AMP (EPA #7969-291; active ingredient: pyraclostrobin, metconazole) and Tombstone Helios (EPA #34704-978; active ingredient: cyfluthrin) on July 21, 2017. The wind was recorded at three miles per hour out of the southeast in a northwesterly direction.
- I received the following information from the OISC Lab:

Case # 2017/1072			Investigator: K. Gibson	
Sample #	Sample Description	Sample Matrix	Amount Found (ng/swab or ng/clothing)	
			Pyraclostrobin	Cyfluthrin
2017-561132	Trip blank swab	Swab	BDL	BDL
2017-561133	Control swab garage door	Swab	BDL	BDL
2017-561134	Camper swab	Swab	27.2	BDL
2017-561135	Swing set swab	Swab	19.1	BDL
2017-561136	Tire rim swab	Swab	631	673
2017-561137	Maple tree vegetation	Vegetation	Not tested	Not tested
2017-561138	Garden vegetation	Vegetation	Not tested	Not tested
2017-561139	Corn field vegetation	Vegetation	Not tested	Not tested
2017-561140	Complainant clothing	Clothing	58700*	212000

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

*results exceeded calibration curve range and reported as minimum concentration found.

LOQ Pyraclostrobin = 1 ng/swab; 80 ng/cloth
LOQ Cyfluthrin = 100ng/swab; 10000ng/cloth

Signature		Date	8/18/17
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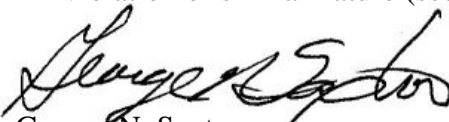
7. I checked the label for Headline AMP. The label reads in part, ***“DO NOT apply this product in a way that will contact workers or other persons either directly or through drift.”*** I also checked the label for Tombstone Helios. The label reads in part, ***“DO NOT apply this product in way that will contact workers or other persons either directly or through drift.”***

8. After reviewing all available information, it is the opinion of this investigator Mr. Briggs was in violation of the Headline AMP and Tombstone Helios labels when both products directly contacted the complainant when applied by the aerial applicator.


Kevin W. Gibson
Investigator

Date: October 27, 2017

Disposition: Andrew Briggs 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 \$500.00 was assessed for this violation. Consideration was given to the fact this was his second violation of similar nature (see 2017/1053) and there was drift to a person.


George N. Saxton
Compliance Officer

Draft Date: March 27, 2018
Final Date: June 20, 2018

CASE SUMMARY

Case #2017/1085

Complainant: Nick Sandhu
6007 Carrollton Avenue
Indianapolis, Indiana 46220
925-262-3736

Respondent: Preston White
Picasso Lawn & Landscape
5149 N. Keystone Avenue
Indianapolis, Indiana 46205
317-252-0088

Certified applicator
Licensed business

1. On July 26, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report he had contracted Picasso Lawn & Landscape to only fertilize his lawn. He stated his lawn is now completely dead and suspects Picasso had an herbicide in the tank as well.
2. On July 26, 2017, I met with the complainant, Nick Sandhu, at his residence, which was also the site of his complaint. Mr. Sandhu stated he contracted with Picasso Lawn and Landscape to fertilize and control weeds on his lawn. Mr. Sandhu stated that soon after a July 10, 2017, application by Picasso his lawn began to turn brown. He stated he had complained to Picasso about the browning, but they denied they were responsible for the injury. Mr. Sandhu volunteered that he had spot sprayed weeds in his lawn earlier in the year with Roundup. While at the site I inspected his entire lawn, took photos of the lawn, took vegetation samples for the Purdue Plant and Pest Diagnostic Laboratory (PPDL) and took soil samples for the OISC residue lab. I observed the following:
 - Most of the Sandhu lawn was brown and appeared dead (see photos 1 & 2).
 - There was a definite spray pattern on the edges of the lawn (see photos 3 & 4).
 - There was a line on the side of the house where the injury stopped and the grass was green beyond the line (see photos 5 & 6).
 - There were some broadleaf weeds in the lawn that were injured, but not dead (see photos 7 & 8).
 - There were obvious spots in the lawn where there was no turf (injured or healthy) where it appeared Roundup had been applied.



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7




Photo 8

3. On July 27, 2017, I contacted Jeff Flanary, owner of Picasso Lawn and Landscape. Mr. Flanary stated he was aware of the complaint. Mr. Flanary adamantly denied that his company's application was responsible for the injury to the Sandhu lawn. Mr. Flanary suggested that either the neighbor had come over and sprayed something or Mr. Sandhu had caused the injury to his own lawn. Mr. Flanary stated he would send me the application records for the Sandhu property.
4. According to the PPDL report, "the pattern of injury shown in the photos points to herbicide injury. There was no evidence of disease in the sample that would cause this kind of damage. The most likely source of the problem is that the applicator had glyphosate in the spray tank by mistake."
5. According to Picasso application records, Preston White applied Lesco 28-0-4 fertilizer and Red Zone 2 to the Sandhu lawn on July 10, 2017. Red Zone 2 is an herbicide (EPA Reg. #228-589) that contains the active ingredients 2,4-D, dicamba and pyraflufen ethyl.
6. The OISC pesticide residue laboratory report is as follows:

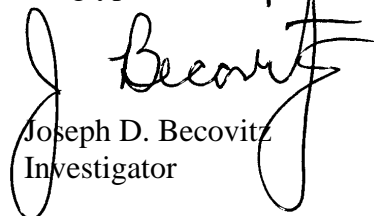
OFFICE OF INDIANA STATE CHEMIST
Pesticide Residue Laboratory
 Lab Report

Case #	2017/1085			Investigator	J. Becovitz	
Sample #	Sample Description	Amount of Analyte (ng/swab)				
		Matrix	2,4-D	Dicamba	Glyphosate	AMPA
2017-112023	3" soil composite from least impacted soil at Sandhu residence	Soil	Not tested	Not tested	BDL	BDL
2017-112024	3" soil composite from injured areas of turf at Sandhu residence	Soil	Not tested	Not tested	52.9	132
2017-112025	3" soil composite from injured areas of turf where complainant applied Glvphosate	Soil	Not tested	Not tested	374	1583

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	Not tested	10	50
Signature			Date	11/7/17	

7. On January 1, 2018, I contacted Jeff Flanary to advise him of our residue analysis showing glyphosate was likely responsible for injuring the Sandhu lawn. Mr. Flanary stated he re-sodded the Sandhu lawn two days after my inspection because Mr. Sandhu was bashing his company on social media and had called the Indiana Attorney General's Office. Mr. Flanary further stated Preston White (the applicator that treated the Sandhu lawn) was "messed up" because his mother had died, had burnt other Picasso customer lawns and failed to show up for work soon after these incidents.
8. Based on the PPDL's report, the glyphosate residue in the Sandhu soil samples and Mr. Flanary's admission of guilt, it appears the Sandhu lawn was killed by a misapplication of glyphosate (the active ingredient in Roundup).


Joseph D. Becovitz
Investigator

Date: March 8, 2018

Disposition: Preston White and Picasso Lawn & Landscape were cited for violation of section 65(5) of the Indiana Pesticide Use and Application Law for operating in a careless and negligent manner. A civil penalty in the amount of \$250.00 was assessed for this violation.


George N. Saxton
Compliance Officer

Draft Date: May 23, 2018
Final Date: July 9, 2018

CASE SUMMARY

Case #2017/1093

Complainant: Rick Delon
9922 N. Royal Center Pike
Royal Center, Indiana 46978
317-430-7265

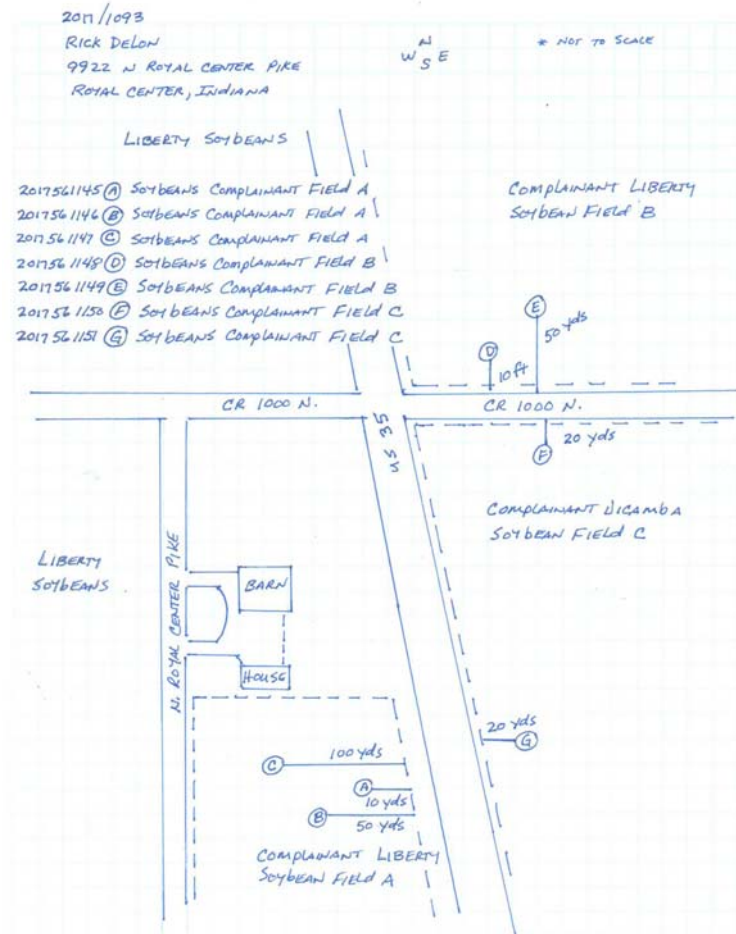
Respondent: Tim Depoy
North Central Co-op
4145 W. 400 S.
Logansport, Indiana 46947
800-228-1159

Licensed 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. He stated North Central Co-op was spraying another one of his fields when they drifted to his Liberty Link soybeans. He also stated they sprayed his beans but failed to clean out the tank and got dicamba on his non-tolerant beans.
2. On August 3, 2017, I met with the complainant Rick Delon at the investigation sites. Mr. Delon explained he paid North Central Co-op to make a dicamba application to his soybean field east of his house and east of his non-dicamba tolerant (Liberty Link) soybean field (see diagram on page 3). He said he believed the applicator drifted onto his non-dicamba tolerant field. He noticed some growth regulator-type symptoms of leaf cupping and puckering.
3. During my on-site investigation, I did the following:
 - a. I checked the soybeans in both of the complainant's soybean fields. Soybeans from both fields exhibited growth regulator-type symptoms of leaf cupping and puckering. The soybeans in the field marked "A" on the diagram (page 3) were more uniformly impacted with growth regulator-type symptoms. The soybeans in the field marked "B" on the diagram (page 3) were more impacted near its more southern edge.
 - b. I photographed the complainant's impacted soybeans showing the growth regulator-type symptoms in both soybean fields. (see photos below)
 - c. I collected impacted soybean plants from both soybean fields for submission to the Purdue Plant and Pest Diagnostic Lab (PPDL) for analysis.
 - d. I collected the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis (see diagram below)
 - 2017561145 soybeans from complainant's field A
 - 2017561146 soybeans from complainant's field A
 - 2017561147 soybeans from complainant's field A
 - 2017561148 soybeans from complainant's field B
 - 2017561149 soybeans from complainant's field B
 - 2017561150 soybeans from complainant's field B
 - 2017561151 soybeans from complainant's field B



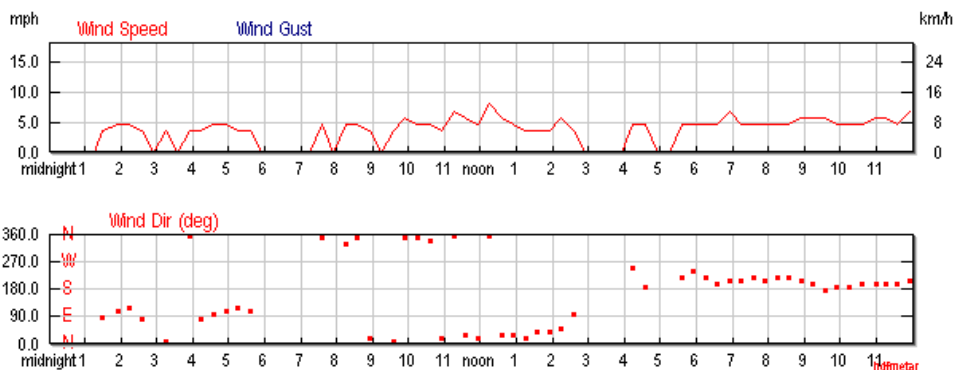
Soybeans from Field "A" Soybeans from Field "A" Soybeans from Field "B" Soybeans from Field "B"



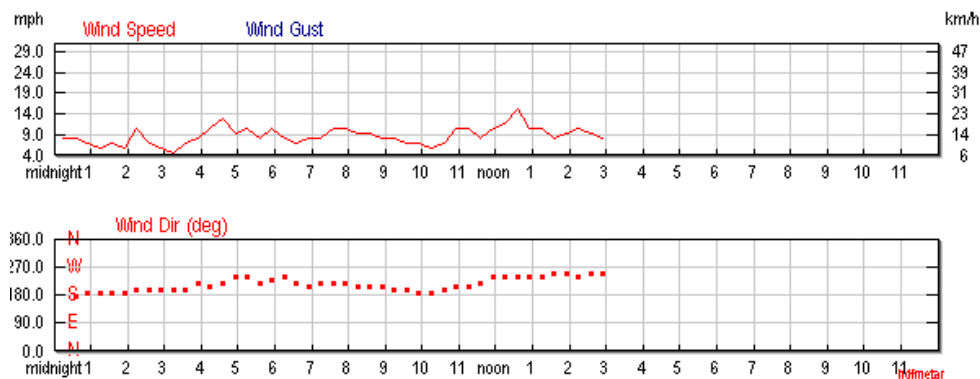
4. I made contact with Mr. Steve Allen of North Central Co-op. He told me Tim Depoy made the dicamba application to the field in question (field "C" on the diagram). He said he would have Mr. Depoy complete and return a Pesticide Investigation Inquiry (PII) for our records. He also told me his company made an application of **Liberty 280 SL** (EPA #264-829; active ingredient: glufosinate) to fields "A" and "B" one day after making the dicamba application to field "C". (July 7, 2017)
5. I received the completed PII from Mr. Tim Depoy. According to the completed PII, Mr. Depoy made an application of **Engenia** (EPA #7969-345; active ingredient: dicamba) and **Roundup Powermax** (EPA #524-529; active ingredient: glycine). The completed PII also contained the following:
 - a. Pesticide application was made on **July 6, 2017 between 2:50pm and 3:30pm**
 - b. Application was made to the complainant's field located at County Road 1000 N. and U.S. 35 in Cass County

- c. Application rate of 12.8 ounces per acre of **Engenia** and 32 ounces per acre of **Roundup Powermax**
 - d. Application was made with **TTi 11004 nozzles**
 - e. Boom height was set at **24 inches**
 - f. Equipment ground speed was recorded at **12 mph**
 - g. Checked Engenia website prior to application: **No**
 - h. Checked Fieldwatch/Driftwatch prior to application: **No**
 - i. Surveyed the application site prior to application: **Yes**
 - j. Buffer used: **120 feet on north and east sides**
 - k. Wind speed at time of application was recorded at **4 mph from the north**
 - l. Certified applicator: **Tim Depoy**
6. I checked the historical weather data at www.wunderground.com for July 6, 2017, for the application site. I obtained historical weather information for Logansport Municipal Airport (15 miles southeast of application site), Fulton County Airport (20 miles northeast of the application site) and LaPorte Municipal Airport (50 miles northwest of the application site). (see tables below)

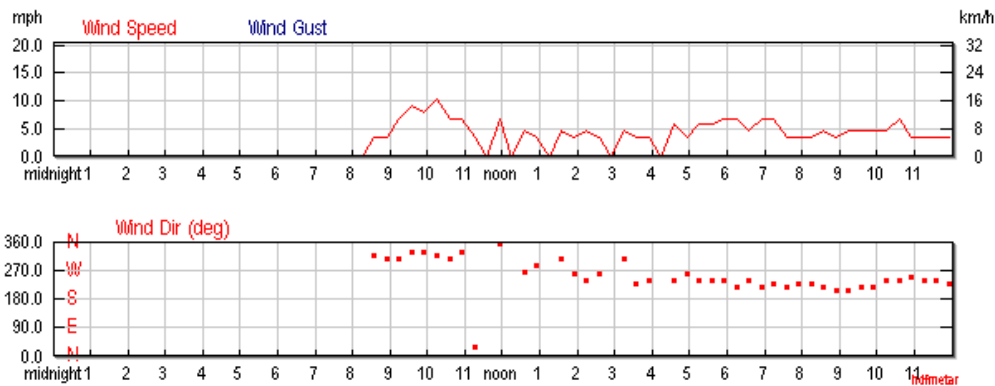
**Logansport Municipal Airport
Logansport, Indiana
15 miles southeast**



**Fulton County Airport
Rochester, Indiana
20 miles Northeast**




**LA Porte Municipal Airport
LaPorte, Indiana
50 miles Northwest**



- According to the weather information from Logansport Municipal Airport, the wind was blowing 0-5 mph from the east in a westerly direction toward the complainant's soybean field "A" (see diagram on page 3)
- According to the weather information from Fulton County Airport, the wind was blowing 0-9 mph from the southwest in a northeasterly direction toward the complainant's soybean field "B" (see diagram on page 3)
- According to the weather information from LaPorte Municipal Airport, the wind was blowing 0-5 mph from the northwest in a southeasterly direction away from the complainant's soybean fields.

7. I received the following information from PPDL: "Cupping/puckering of leaves and discolored leaf tip is indicative of injury from dicamba"- **field "A"** and "Cupping/puckering of leaves and discolored leaf tip is indicative of injury from dicamba"- **field "B"**

8. I received the following analysis information from OISC Lab:

Case # 2017/1093			Investigator: K. Gibson		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-561145	Soybeans 10 yards Complainant field A	Vegetation	BQL	BDL	BDL
2017-561146	Soybeans 50 yards Complainant field A	Vegetation	BDL	BDL	BDL
2017-561147	Soybeans 100 yards Complainant field A	Vegetation	BDL	BDL	BDL
2017-561148	Soybeans 10 yards Complainant field B	Vegetation	BDL	BDL	BDL
2017-561149	Soybeans 50 yards Complainant field B	Vegetation	BQL	BDL	BDL
2017-561150	Soybeans 20 yards Complainant field C	Vegetation	BDL	4.05	BDL
2017-561151	Soybeans 20 yards Complainant field C	Vegetation	BDL	2.23	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	4
Signature			Date	12/4/17	

The Residue Lab results indicated the presence of dicamba in one soybean sample from the complainant's field "A" and one soybean sample from the complainant's field "B", but not in quantifiable amounts. Weather information from three different locations recorded the wind from three different directions, so no definite conclusions could be drawn. All three weather stations did, however, report winds less than 3 mph at some time during the application. The applicator failed to check the Fieldwatch/Driftwatch website prior to the application. He also failed to check the Engenia website prior to the application.

9. The label for Engenia reads in part,

- *"The applicator must also consult sensitive crop registries to locate nearby sensitive areas where available."*
- *"**DO NOT** tank mix any product with Engenia . . . You check the list of EPA approved products for use with Engenia at www.engeniatankmix.com no more than 7 days before applying Engenia . . ."*
- *"Wind speed <3 mph only apply Engenia if steps have been taken to confirm that a temperature inversion is not present."*

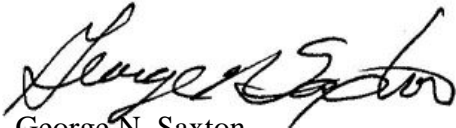


Kevin W. Gibson
Pesticide Investigator

Date: February 28, 2018

Disposition: Tim Depoy 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 before application.

Tim Depoy was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application in 'calm' winds. A civil penalty in the amount of \$250.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: March 26, 2018
Final Date: June 20, 2018

CASE SUMMARY

Case #2017/1104

Complainant: Bob Benesh
8478 N 900 W
Royal Center, Indiana 46978
574-721-9444

Respondent: Tony Herd
Herd Agra Enterprises
5105 N 200 W
Logansport, Indiana 46947
574-889-3955

Private Applicator

1. On July 31, 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 3, 2017, I met with the complainant at his residence. I identified myself verbally and with OISC credentials. I explained the role of OISC in drift investigations and issued a Notice of Inspection.
3. I followed the complainant to the fields in question located just south of SR 16 on SR 17 in the 6000 blk. The first non-dicamba tolerant soybean field is across the road (west) of the respondents dicamba tolerant (DT) soybeans and the second is sandwiched between two dicamba tolerant (DT) soybean fields on the east side of SR 17.
4. The complainant showed me the two fields and I could see some of the leaves on his soybean plants were puckered, cupped and the leaf tips were slightly discolored. The complainant told me he first noticed the pesticide exposure symptoms about 2-3 weeks ago. The complainant waited to see how the growth would continue on his crop and when it seemed to be proceeding but at a very slow rate he called OISC to report what he suspected was a movement of the dicamba from the targeted field onto his field. The complainant told me the dicamba tolerant fields of soybeans in this case all belong to Mr. Tony Herd of Herd Agri Enterprises.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

- Figure 1 is SR 17 looking from north to south. The complainant's soybeans are on the right. The respondent's soybeans are on the left.
- Figure 2&3 are field 1 of the complainant's soybeans
- Fig. 4&5 are field 2 of the complainant's soybeans.

5. I collected swabs and vegetation from both of the complainant's fields. I collected the samples in both the least affected area and the most affected areas. I also collected swabs, vegetation and soil samples from the two suspect fields in this case. I collected samples in what would be a buffer zone and the target application areas. The samples were all tagged and transported to the OISC Residue Laboratory for analysis. I also collected leafy samples to be examined by the Purdue Plant and Pest Diagnostic Laboratory (PPDL). The sketch which follows (fig.6) was done at the time of sampling and includes sampling sites and reference points.

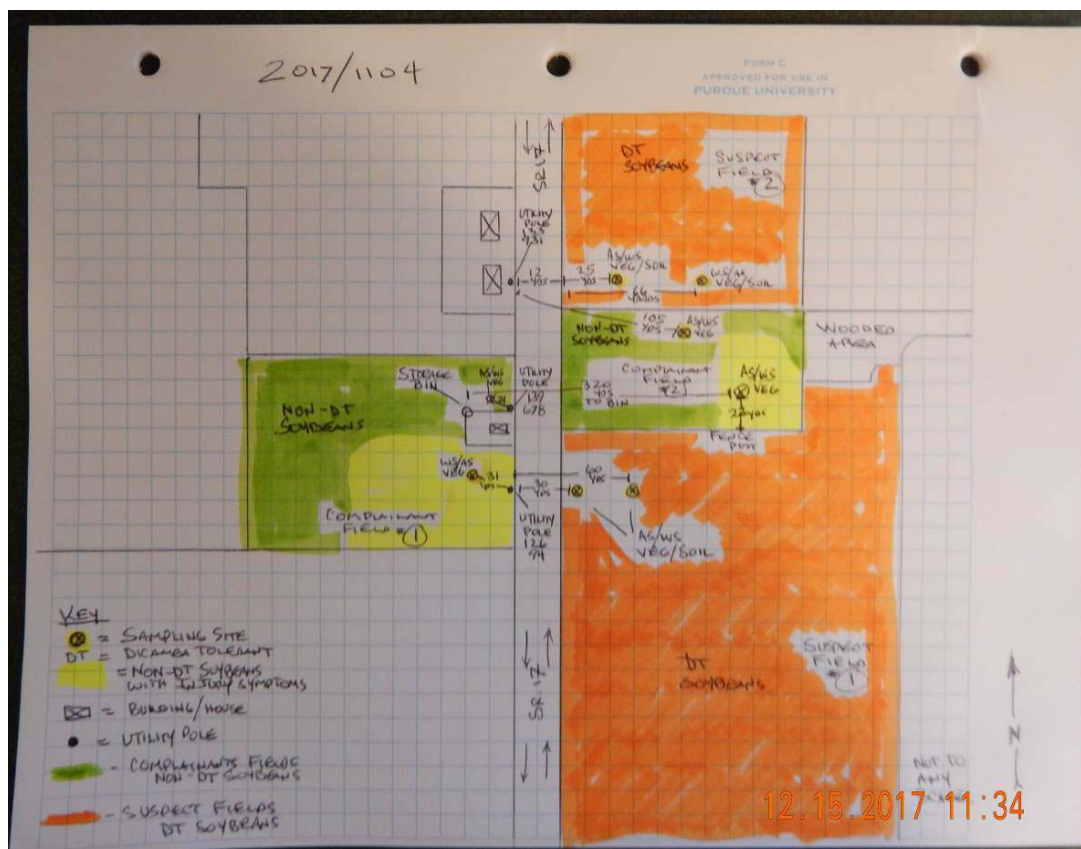


Fig. 6

6. I e-mailed Mr. Herd about the accusation and its location and attached a Pesticide Investigation Inquiry (PII) I requested the PII be filled out and e-mailed back to me. On August 12, 2017, I received the PII back from Mr. Herd. The PII is attached to the case file. The following information, (questions in bold and answers) are *taken from* the PII in this case.
- Application date & time:** 6-26-17 began spraying 11:30am, Finished 12:35pm
 - Target Field:** Business address listed as 5105 N 200 W Logansport, IN.
 - Application rate of Engenia:** 12.8 oz per acre
 - Adjuvants used:** AG 16098 at 2 qt per 100 gallon
 - Nozzles:** Flat fan nozzles
 - Wind info:** West 6-8 mph, Applicator estimate and weather station DTN
 - Name of the Applicator:** Tony Herd
 - Buffer used:** The width of SR 17 plus 180' in field south field and 180' in the north field.
 - Ground speed:** 13-14 mph
 - Boom Height:** 12 inches
 - Checked Registrants website before application:** No, not aware of websites
 - Checked Field Watch before application:** No
 - Surveyed site before application:** Yes

7. The complainant in this case had his post emergent pesticide spray applications made by CFS of Burnettsville Indiana. The post emergent pesticide spray application was made on **July 10, 2017**. When I collected the spray records from CFS, I asked when the last time the sprayer used on the complainant's soybeans had any dicamba in it. I was told by the Management at the CFS they had not used that sprayer anytime in 2017 for spraying any dicamba products. The pesticide products used for the complainant's post-emergent pesticide spray application were:

- *Flexstar*, EPA Reg. #100-1101, active ingredient=Sodium salt of Fomesafen
- *Durango*, EPA Reg. #62719-556, active ingredient=glyphosate

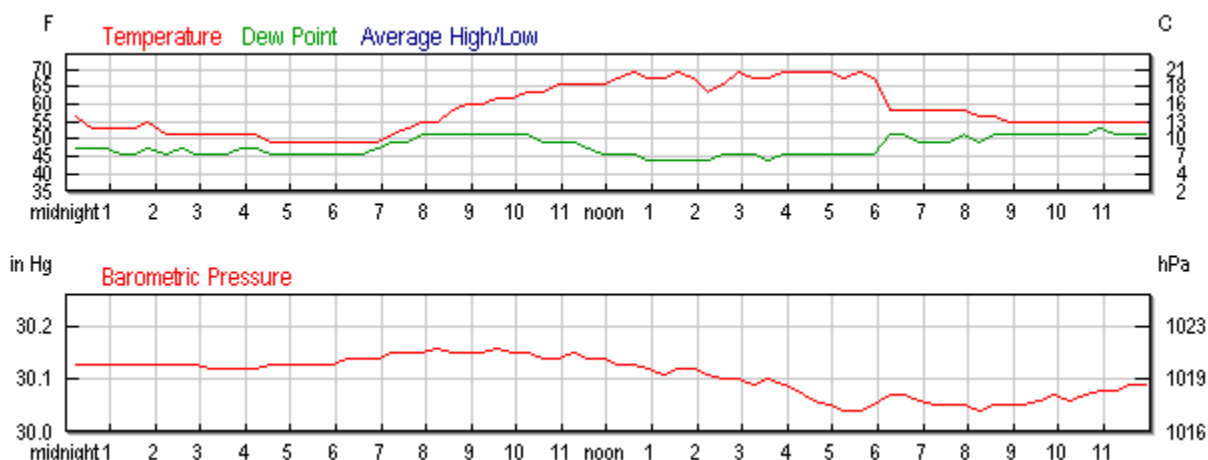
8. I spoke to the respondent in this case and he told me he made a pesticide spray application to the fields in this report on **June 26, 2017 from 11:30am to 12:35pm**. The PII reflects the same date and times. The pesticide products used were:

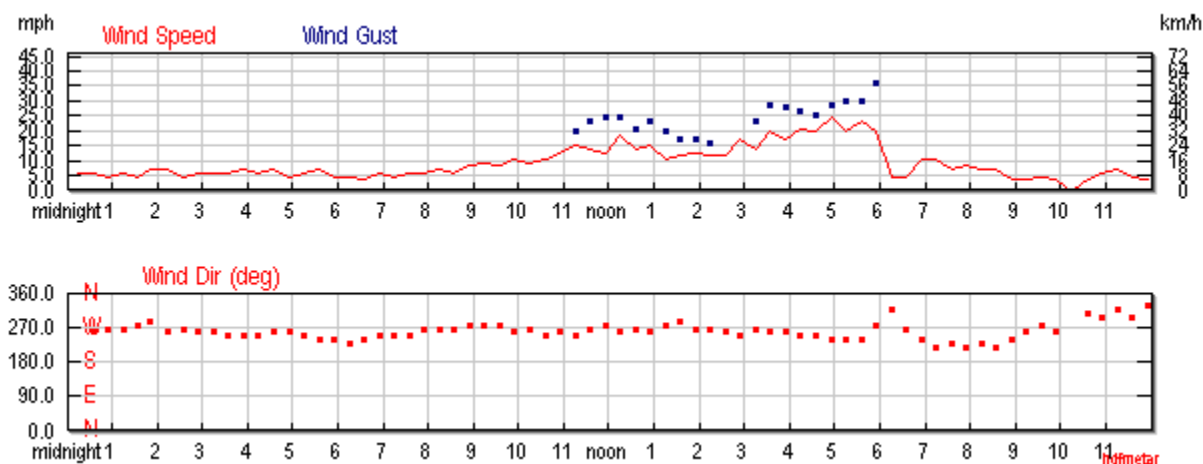
- *Engenia*, EPA Reg. #7969-345, active ingredient(s)=dicamba
- *Roundup Powermax*, EPA Reg. #524-549, active ingredient(s)=glyphosate

9. The triangulated weather information which follows is taken from weather history on the weatherunderground.com web site for the pesticide spray application date of June 26, 2017. The sites taken will be Logansport Indiana, Lafayette Indiana and Plymouth Indiana.

The chart and graph that follow are for **Logansport Indiana**, which is approximately **10 miles SE** of Royal Center Indiana.

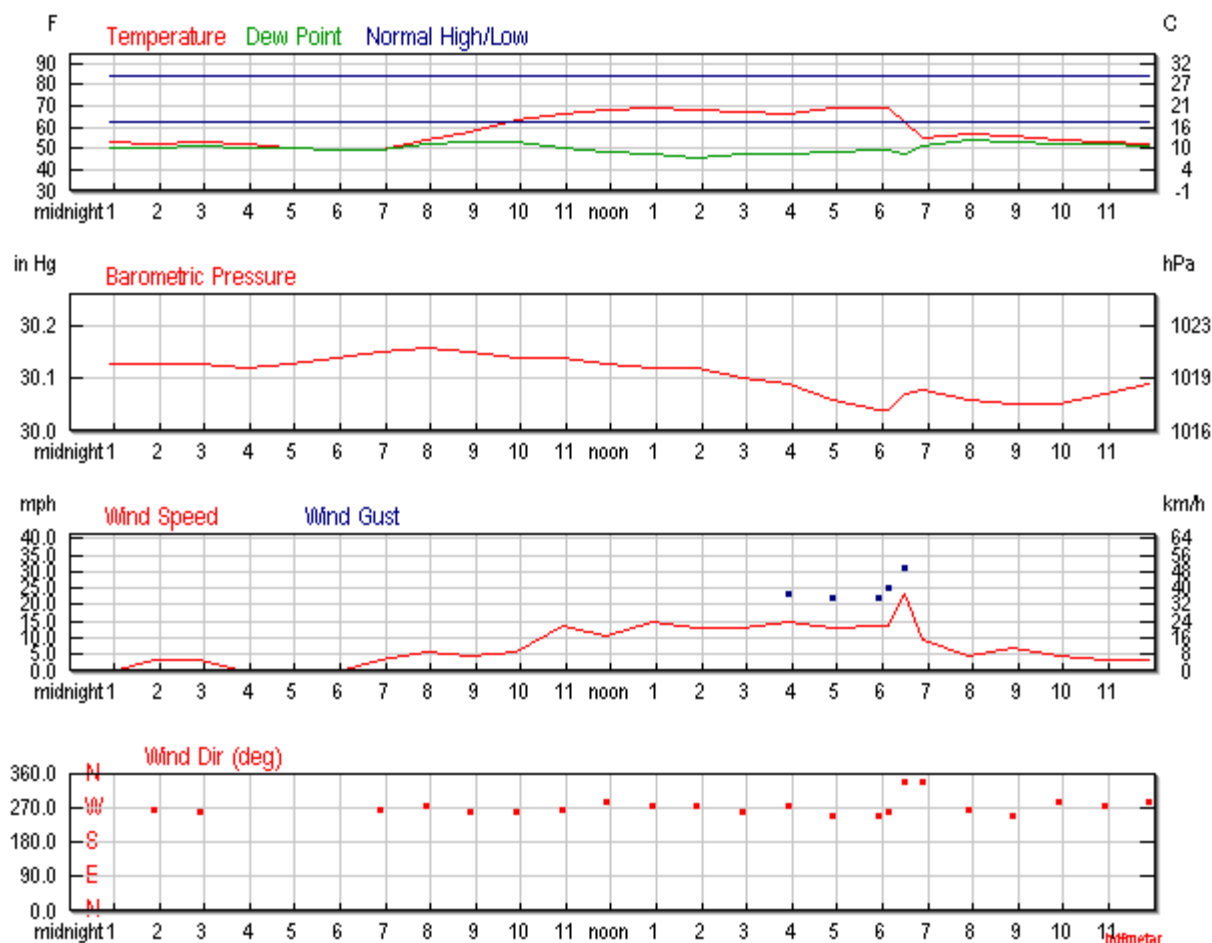
DATE	TIME	WIND DIRECTION	WIND SPEED
6-26-17	11:35pm	West	13.8 mph with gusts of 23 mph
6-26-17	11:55pm	West	12.7 mph with gust to 24.2 mph
6-26-17	12:15pm	West	18.4 mph with gusts to 24.2 mph
6-26-17	12:35pm	West	13.8 mph with gusts to 20.7 mph





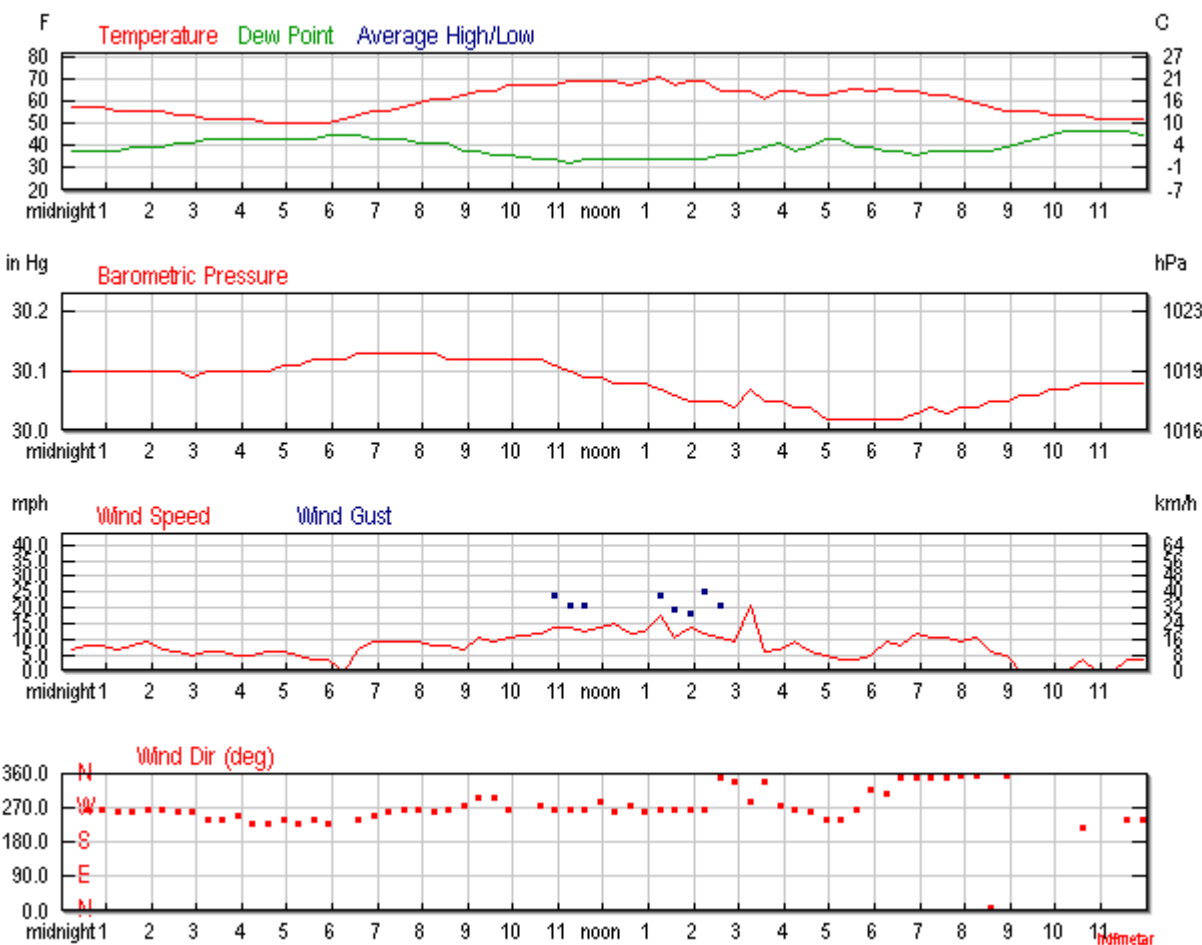
The chart and graph that follow are for **Lafayette Indiana**, which is approximately **35 miles SW** of Royal Center Indiana.

DATE	TIME	WIND DIRECTION	WIND SPEED
6-26-17	11:54am	WNW	10.4 mph
6-26-17	12:54pm	West	15 mph with gusts to 20.7 mph



The chart and graph which follow are for **Plymouth Indiana** which defaults to **Knox Indiana** approximately 35 miles NW of Royal Center Indiana.

DATE	TIME	WIND DIRECTION	WIND SPEED
6-26-17	11:15am	West	13.8 mph with gusts to 20.7 mph
6-26-17	11:35am	West	12.7 mph with gusts to 20.7 mph
6-26-17	11:55am	WNW	13.8 mph
6-26-17	12:15pm	West	15 mph with gusts to 20.7 mph
6-26-17	12:35pm	West	11.5 mph




10. On August 7, 2017, I received the final report from PPDL in this case. The report reads in part:
 “Cupping/Puckering of leaves and discolored leaf tip are indicative of injury from dicamba”.

Joe Ikley
 Extension Weed Specialist
 Purdue University

11. On December 22, 2017, I received the final report from the OISC Residue Laboratory for the samples analyzed in this case. The chart that follows is a copy and paste from that e-mail.

OFFICE OF INDIANA STATE CHEMIST
Pesticide Residue Laboratory
 Lab Report

Case #	2017/1104	Investigator	B. Baker		
Sample #	Sample Description	Amount of Analyte			
		Matrix	Dicamba	DCSA	5-OH Dicamba
2017-32-3883	Vegetation sample -Complainants field (1) North end	Vegetation	BDL	BDL	BDL
2017-32-3884	Vegetation sample -Complainants field (1) South end	Vegetation	2.80	BDL	BDL
2017-32-3885	Vegetation sample -Complainants field (2) South end	Vegetation	BDL	BDL	BDL
2017-32-3886	Vegetation sample -Complainants field (2) North end	Vegetation	BQL	BDL	BDL
2017-32-3887	Vegetation sample -Suspect field (1) Buffer	Vegetation	BDL	BDL	BDL
2017-32-3888	Vegetation sample -Suspect field (1) App. Area	Vegetation	BDL	BDL	BDL
2017-32-3889	Vegetation sample -Suspect field (2) Buffer	Vegetation	BDL	4.91	BDL
2017-32-3890	Vegetation sample -Suspect field (2) App. Area	Vegetation	BDL	0.86	BDL
2017-32-3891	Soil sample from suspect field (1)- Buffer	Soil	BDL	BDL	BDL
2017-32-3892	Soil sample from suspect field (1)- App area	Soil	BDL	BDL	BDL
2017-32-3893	Soil sample from suspect field (2)- Buffer	Soil	5.94	198	BDL
2017-32-3894	Soil sample from suspect field (2)- App area	Soil	BDL	17.6	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	1	20
LOQ (ppb)	Soil		2	0.4	2
Signature			Date	12/19/17	

12. The pesticide label/supplemental label for Engenia reads in part under the heading:
Tank Mix Instructions:

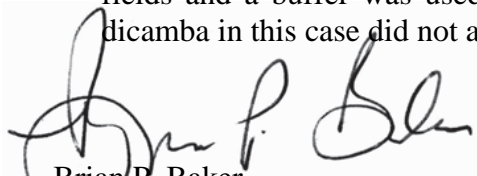
DO NOT tank mix any product with **Engenia** unless:

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**;

Also in part under the heading of;
Wind Speed and Direction

- **DO NOT** apply at wind speeds greater than 15 mph.

13. In conclusion, the respondent made a pesticide spray application of Engenia, EPA Reg. #7969-345, on June 26, 2017 from 11:30am to 12:35pm on his two agricultural crop fields located on SR 17 just south of the intersection of SR 16 and SR 17. The label/supplemental label language for Engenia listed in paragraph 12 of this report does not allow Engenia to be applied if the wind speed exceeds 15 mph. The weather history data in paragraph 9 of this report shows winds gusts in all three locations, which exceed 15 mph. The label/supplemental label for Engenia also requires the user to check the registrant's website no more than 7 days prior to the application before tank mixing Engenia with any other product. In the PII, the respondent indicated he did not check the websites prior to the application in this case. The injury symptoms on the complainant's soybeans were reported by PPDL to be "indicative" of injury from dicamba and there is a positive detection of dicamba in the complainant's fields, one in a measurable amount and one below quantification limits. The wind direction on the day of the application was blowing away from the complainant's fields and a buffer was used and verified on the respondent's field #1. The movement of the dicamba in this case did not appear to be wind drift movement.



Brian P. Baker
Investigator

Date: December 22, 2017

Disposition: Tony Herd 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 and sensitive crop registries before application.

Tony Herd was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding application in winds over 15 miles per hour. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: February 13, 2018
Final Date: June 5, 2018

CASE SUMMARY

Case #2017/1106

Complainant: Dan Kixmiller
12299 E. SR 58
Edwardsport, Indiana 47528
812-328-6241

Respondent: Clayton Williams Non-certified Applicator
11547 E. Lower Freelandville Road
Oaktown, Indiana 47561
812-890-0455

1. On July 31, 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 2, 2017, I met with Mr. Kixmiller. Mr. Kixmiller stated he noticed symptoms a few weeks prior to contacting OISC, but could not remember the exact date. Mr. Kixmiller stated he first consulted with Scott LeFevre of Ceres Solution about the symptoms. Mr. Kixmiller stated his soybeans looked stunted, with cupped and crinkled leaves. See figures 1-2. Mr. Kixmiller stated the symptoms appeared heavier on the west and south ends of his field. See site diagram. Mr. Kixmiller stated he applied Flexstar (EPA Reg. #100-1385, active ingredients glyphosate and sodium salt of fomesafen) and Firstrate (EPA Reg. #62719-275, active ingredient cloransulan-methyl) on June 4, 2017.



Figure 1-Stunted, crinkled, cupped



Figure 2-Crinkled leaves moving east



Key		map
2017501851	Soil 50 yds from target field	1
2017501852	Soil 5 yds from target field	2
2017501853	Soil from target field	3
2017501854	vegetation 50 yds from target field	4
2017501855	vegetation 5 yds from target field	5
2017501856	vegetation from target field	6

Site Diagram

3. On August 2, 2017, I collected a vegetation sample from Mr. Kixmiller's non-dicamba tolerant (DT) soybeans to be visually analyzed by Purdue's Plant and Pest Diagnostic Lab (PPDL). In addition, I collected vegetation samples and soil to be analyzed by OISC's Residue Lab.
4. On August 2, 2017, I met with Bill Williams' wife. Mr. Williams was not home at the time, so I left a copy of a Pesticide Investigation Inquiry (PII) form for Mr. Williams to complete and return.
5. On August 3, 2017, PPDL reported the following:

Diagnosis and Recommendations

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


Final Report

8-4-17

Cupping/puckering of leaves and discolored leaf tip are indicative of injury from dicamba.

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

6. On November 30, 2017, OISC Residue Lab reported the following:

Case # 2017/1106			Investigator: J. Kelley		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-501850	Soil 50 yards from target field	Soil	BDL	6.93	BDL
2017-501851	Soil 5 yards from target field	Soil	BDL	2.65	BDL
2017-501852	Soil from target field	Soil	3.33	77.4	BDL
2017-501853	Vegetation 50 yards from target field	Vegetation	BDL	BDL	BDL
2017-501854	Vegetation 5 yards from target field	Vegetation	BDL	0.476	BDL
2017-501855	Vegetation from target field	Vegetation	*6785	16.3	69.6
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 amount reported due to concentration exceeded calibration curve range.					
LOQ (ppb)	Soil		1	1	1
LOQ (ppb)	Vegetation		2	0.4	2
Signature			Date	11/30/2017	

7. After several telephone conversations and emails with Bill Williams and his son, Clay Williams, I received Clay Williams' completed PII on January 30, 2018. The following are answers to questions from the PII.

- A. Application dates & times: June 27, 2017 (10:50am – 11:45am)
- B. Target field: Soybeans
- C. Application rate of Engenia: 12.8 oz. per acre (Roundup PowerMax was also applied in tank mix)

- D. Adjuvants: Answer left blank on PII
- E. Nozzles: TTI04
- F. Winds: From north, northwest 10.2mph
- G. Applicator: Clay Williams
- H. Buffer Zone: Answer left blank on PII
- I. Ground speed: 10mph
- J. Boom height: 42 inches
- K. Checked Registrants website before application: Answer left blank on PII
- L. Checked Field Watch before application: No
- M. Surveyed site before application: Yes

8. Wind data from Weather Underground, www.wunderground.com, from the station located at the Lawrenceville-Vincennes International Airport approximately 40 miles away indicated the wind was variable and out of the north, northwest at 3.5mph-6.9mph. This is consistent with Clay Williams wind data on the PII. The wind was blowing toward Mr. Kixmiller's non-DT soybeans.

9. Label language for Engenia states in part:

A. ***"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..."*

B. *"The applicator must also consult sensitive crop registries to locate nearby sensitive areas where available".*

C. ***"DO NOT** apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption."*

D. ***"DO NOT** apply when wind is blowing in the direction of neighboring specialty crops".*

E. ***"DO NOT** exceed a boom height of 24 inches above target pest or crop canopy".*



Paul J. Kelley
Investigator

Date: February 8, 2018

Disposition: Clayton Williams 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 sensitive crop registry before application.

Clayton Williams 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.



George N. Saxton
Compliance Officer

Draft Date: March 22, 2018

Final Date: June 20, 2018

CASE SUMMARY

Case #2017/1159

Complainant: Brian Addington
12218 W. CR600 S.
Dunkirk, IN 47336
765-744-2701

Respondent: Dennis Rodgers
2952 S. CR1100 W.
Dunkirk, IN 47336
765-768-6733

Private Applicator

1. On August 23, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans. He stated he learned that Dennis Rodgers applied the dicamba on June 22 and July 4.
2. On August 31, 2017, I spoke with Brian Addington who indicated he had several non dicamba-tolerant (DT) Liberty Link soybean fields which he suspected were affected by exposure to dicamba. He stated he originally felt the applicator or manufacturer would handle the issue, but ultimately decided to call the OISC for documentation. The adjacent fields, farmed by Dennis Rodgers, had been sprayed with dicamba-containing tank mixes.
3. On September 5, 2017, I met Mr. Addington and inspected his fields, all of which had been sprayed with Liberty in July, before deciding to investigate three (see also Case#s 2017/1222 & 2017/1158). The field for this case was between CR1150W and CR1225W 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 Addington soybean field. The Addington field abutted the Rodgers target field on the east side with no fence line or biological barrier separating the crops.
 - b) Observed and photographed mostly uniform cupping and puckering on older leaves of non-DT soybeans on both sides of the woods along the west side of the Addington field (Fig.1). These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field showed no symptoms.
 - c) Collected soybean plants which exhibited symptoms from the Addington field for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue.
 - d) Collected plant samples from non-DT soybeans exhibiting symptoms approximately 20 feet into the Addington field, east of the target field. Collected a soil sample from approximately 40 feet into the target field, west of the Addington soybean field. Those samples were submitted to the OISC Residue lab for analysis. It should be noted that soil was collected from the target field instead of vegetation because of the time elapsed between the suspected application date and the sample collection date. Feedback from the OISC Residue Lab indicated analytes persisted longer in soil.



Fig.1 Aerial photo of fields

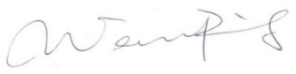


Fig.2 Field border; target on left



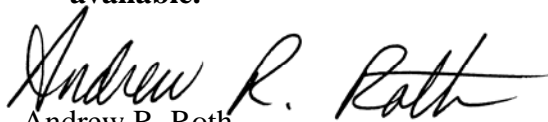
Fig.3 Cupped leaves, Addington field

5. On September 5, 2017, I contacted Dennis Rodgers who confirmed he sprayed several fields in the area, some with Engenia and some with Xtendimax. He reported that he sprayed the field on the east side of CR1225W with Buccaneer Plus (glyphosate) and Engenia (dicamba) in June. Mr. Rodgers later returned a completed Pesticide Investigation Inquiry which indicated the following:
 - a. Application date & time: June 22, 2017 9:30am-1:00pm
 - b. Target field: Concrete silo (soybeans), west of Addington soybeans
 - c. Pesticides applied: Engenia (EPA Reg. #7969-345)
Buccaneer Plus (EPA Reg. #55467-9)
 - d. Application rate of Engenia: 12.8 oz. per acre
 - e. Adjuvants: Capsule
 - f. Nozzles: TT 1100
 - g. Winds: 7-10mph from SW (toward Addington non-DT beans)
 - h. Applicator: Dennis Rodgers
 - i. Buffer Zone: 120 feet, east and south sides
 - j. Ground speed: 13mph
 - k. Checked registrant's website before application: yes
 - l. Checked Drift Watch before application: no (consulted with neighbors)
 - m. Surveyed site before application: yes
6. I checked recorded wind data at www.wunderground.com for the closest official weather station to the application site for June 22, 2017. Winds at the Delaware County Airport, approximately 12 miles southwest of the field, were recorded as follows:
 - 9:53am from southwest at 9.2mph (blowing toward Addington soybeans)
 - 10:53am from southwest at 11.5mph
 - 11:53am from west-southwest at 11.5mph
 - 12:53pm from southwest at 10.4mph
7. The PPDL report stated, *"Cupping/puckering of older leaves, as well as discolored leaf tips and parallel venation are indicative of injury that can be caused by exposure to dicamba."*
8. The OISC Residue Lab analyzed the plant and soil samples collected from the fields for glyphosate and its breakdown product, AMPA, as well as for dicamba and its breakdown products, DCSA and 5-OH dicamba, and reported the following:

Case #	2017/1159		Investigator		Andy Roth		
Sample #	Sample Description	Amount of Analyte (ppb)					
		Matrix	DCSA	Dicamba	5-OH Dicamba	Glyphosate	AMPA
2017-47-4148	Non target beans - Addington	Vegetation	BQL	BDL	BDL	BDL	BDL
2017-47-4149	Target soil	Soil	187	4.01	BDL	2062	1393
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	2	1	2	5	125	
LOQ (ppb)	Vegetation	2	4	1	5	125	
Signature				Date		2/21/2018	

9. The dicamba breakdown product, DCSA, was detected in the soybeans collected from the Addington field, but was below quantification limits. Dicamba, DCSA, glyphosate and AMPA were detected in the soil sample collected from the reported buffer zone in the target field. The evidence at the site, the lab reports and the wind data suggest dicamba from the target field application moved off-target to the Addington non-DT soybeans. While it is difficult to determine whether dicamba moved off-target due to application into an inversion or volatility at some point after the application, the wind conditions, reported by Mr. Rodgers and confirmed at the airport, supports that Engenia was applied when winds were blowing toward the sensitive non-DT soybeans.

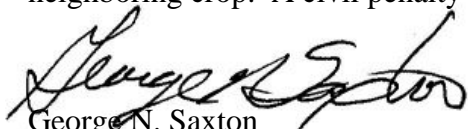
10. The Engenia label states, **“DO NOT apply when wind is blowing in the direction of neighboring specialty crops.”** It further states, “Before making an application, the applicator must survey the application site for neighboring sensitive areas. **The applicator must also consult sensitive crop registries to locate nearby sensitive areas where available.”**


 Andrew R. Roth
 Investigator

Date: March 26, 2018

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

Dennis Rodgers was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for drift management violation for applying when wind was blowing towards a neighboring crop. A civil penalty in the amount of \$100.00 was assessed for this violation.


 George N. Saxton
 Compliance Officer

Date: April 19, 2018
 Final Date: June 21, 2018

CASE SUMMARY

Case #2017/1160

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

Respondent: Dennis Rodgers
2952 S. CR1100 W.
Dunkirk, IN 47336
765-768-6733

Private Applicator

1. On August 31, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans.
2. On August 31, 2017, I spoke with Matt Johnson who reported he was notified by Dennis Rodgers that cupped soybeans were observed in Mr. Johnson's fields. Mr. Rodgers reportedly applied dicamba-containing tank mixes to fields adjacent to Mr. Johnson's fields.
3. On September 5, 2017, I met Mr. Johnson and was provided with field maps for the two application sites (see also Case #2017/1237) where dicamba was suspected to have moved off-target to his non dicamba-tolerant (DT) Roundup Ready soybeans. The field in this case was on the south side of CR700S in Jay County and had reportedly been sprayed with Roundup in early-July.
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 southwest corner of the target field was across CR700S to the north of the northeast corner of the Johnson field (Fig.1).
 - b) Observed and photographed mostly uniform cupping and puckering on older leaves of non-DT soybeans in the northern portion of the Johnson field, especially in the lower area of the field near the road. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field showed no symptoms.
 - c) Collected soybean plants exhibiting symptoms from the Johnson field for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue.
 - d) Collected plant samples from non-DT soybeans exhibiting symptoms approx. 40 feet into the Johnson field, south of the road. Collected a soil sample approx. 40 feet into the target field, north of the road. Soil was collected from the target field instead of vegetation because of the time elapsed between the suspected application date and the sample collection date. Feedback from the OISC Residue Lab indicated analytes persisted longer in soil. The samples were submitted to the OISC Residue lab for analysis.



Fig.1 Aerial photo of fields



Fig.2 Johnson field (left) & target field (right)




Fig.3 Cupped soybean leaves in Johnson field



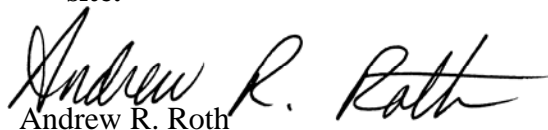
Fig.4 Cupped soybean leaves in Johnson field

5. On September 5, 2017, I contacted Dennis Rodgers who confirmed he sprayed several fields in the area, some with Engenia and some with Xtendimax. He reported that he sprayed the field across CR700S to the north of the Johnson soybeans with Buccaneer Plus (glyphosate) and Xtendimax (dicamba) in July. Mr. Rodgers later returned a completed Pesticide Investigation Inquiry (PII) which indicated the following:
 - a. Application date & time: July 4, 5:30pm-8:00pm (multiple fields)
 - b. Target field: Ruby Fords (soybeans), north of Johnson soybeans
 - c. Pesticides applied: Xtendimax (EPA Reg. #524-617)
Buccaneer Plus (EPA Reg. #55467-9)
 - d. Application rate of Xtendimax: 22 oz. per acre
 - e. Adjuvants: Capsule
 - f. Nozzles: TT 1100
 - g. Winds: 7mph from NNE (blowing toward Johnson soybeans)
 - h. Applicator: Dennis Rodgers
 - i. Buffer Zone: 120 feet (listed on PII, but not noted on map)
 - j. Ground speed: 13mph
 - k. Checked registrant's website before application: yes
 - l. Checked Drift Watch before application: no (consulted with neighbors)
 - m. Surveyed site before application: yes
6. I checked recorded wind data at www.wunderground.com for the closest official weather station to the application site for July 4, 2017. Winds at the Delaware County Airport, approximately 13 miles southwest of the field, were recorded as follows:
 - 5:53pm from east-northeast at 11.5mph (blowing toward Johnson soybeans)
 - 6:53pm from east-northeast at 11.5mph
 - 7:53pm from east-northeast at 10.4mph

7. The PPDL report stated, “Cupping/puckering of older leaves, as well as discolored leaf tips and parallel venation are indicative of injury that can be caused by exposure to dicamba.”
8. The OISC Residue Lab analyzed the plant and soil samples collected from the fields for glyphosate and its breakdown product, AMPA, as well as dicamba and its breakdown products, DCSA and 5-OH dicamba, and reported the following:

Case #	2017/1160		Investigator		Andy Roth		
Sample #	Sample Description	Amount of Analyte (ppb)					
		Matrix	DCSA	Dicamba	5-OH Dicamba	Glyphosate	AMPA
2017-47-4154	Non target beans	Vegetation	BDL	BDL	BDL	Not tested	Not tested
2017-47-4155	Target soil	Soil	*258	9.27	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							
* Exceeded cal line and minimum amount reported							
LOQ (ppb)	Soil		2	1	2	Not tested	Not tested
LOQ (ppb)	Vegetation		2	4	1	Not tested	Not tested
Signature				Date	1/31/2018		

9. Although dicamba exposure symptoms were visible on soybean plants in the Johnson field, no dicamba analytes were detected in the soybeans collected, likely because they metabolized between the dates of application and the date of sample collection. Dicamba and its breakdown product, DCSA, were detected in the soil sample collected from the target field. The samples were not analyzed for glyphosate because it was reportedly applied to all fields. The evidence at the site, the PPDL report and the wind data suggest dicamba from the target field application moved off-target to the Johnson non-DT soybeans. 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, the wind data supports that Xtendimax was applied to the target field when winds were blowing toward the sensitive non-DT soybeans.
10. The Xtendimax label reads, “**DO NOT APPLY this product when the wind is blowing toward adjacent commercially grown dicamba sensitive crops, including but not limited to, commercially grown tomatoes and other fruiting vegetables (EPA crop group 8), cucurbits (EPA crop group 9), and grapes.**” It further states, “Before making an application, the applicator must survey the application site for neighboring non-target sensitive crops. **The applicator must also consult sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site.**”


 Andrew R. Roth
 Investigator

Date: March 26, 2018

Disposition: Dennis Rodgers 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.

Dennis Rodgers 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: April 19, 2018
Final Date: June 21, 2018

CASE SUMMARY

Case #2017/1173

Complainant: Judith Morris
1441 S. CR500 E.
Hartford City, IN 47348
765-348-2213
765-717-0682

Respondent: Dale Rhoton Private Applicator
4439 N. CR800 E.
Montpelier, IN 47359
765-728-3050

1. On August 3, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to her beans.
2. On August 3, 2017, I spoke with Judith Morris who reported she noticed cupped leaves on non dicamba-tolerant (DT) soybeans in the field around her home a week prior. The field across the road, which was being farmed by Gary and Dale Rhoton, was suspected to have been sprayed with a dicamba-containing tank mix.
3. On August 3, 2017, I met Mrs. Morris at her home on the east side of CR500E in Blackford County. Rod Clamme, manager at Ag Best at Hartford City, was also there inspecting the soybeans. He reported that the Morris beans were sprayed with Roundup on July 25, 2017. The Morris soybean field surrounded the home and property on three sides.
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 Morris soybean field. The southwest portion of the Morris field was directly across CR500E from the northeast portion of the Rhoton field.
 - b) Observed and photographed mostly uniform, widespread cupping and puckering of leaves on non-DT soybean plants across the Morris field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Cupped beans were visible across the Morris field, starting near the road and expanding to the east along a low-lying grass waterway behind the Morris home.
 - c) Collected soybean plant samples from the Morris soybean field for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue.
 - d) Spoke with Gary and Dale Rhoton who arrived at the site while I collected samples. Learned that Dale Rhoton sprayed the field with Engenia but left a 200-foot buffer around the perimeter of the field. Collected plant samples from non-DT soybeans exhibiting symptoms in the Morris field. Collected plant samples from soybeans from within the reported buffer and from the interior (non-buffer) portion of the target field. Those samples were submitted to the OISC Residue lab for analysis.



Fig.1 Aerial photo of fields



Fig.2 Morris soybeans, CR500E and target field



Fig.3 Cupped soybeans south of Morris home



Fig.4 Cupped and puckered leaves in Morris field


5. Dale Rhoton reported he sprayed the interior of the field with Roundup (glyphosate) and Engenia (dicamba) while the 200-foot buffer around the perimeter of the field was sprayed with Roundup and Sinister (fomesafen). A Pesticide Investigation Inquiry was later returned to the OISC. After I corresponded to clarify some of the responses provided, the following information was compiled for the application:
 - a. Application date & time: July 14, 2017, 10am-4pm (multiple fields)
 - b. Target field: Schmidt farm (soybeans), southwest of Morris bean field, across CR500E
 - c. Application rate of Engenia (EPA Reg. #7969-345): 12.8 oz. per acre
 - d. Adjuvants: Oculus and Clasp
 - e. Nozzles: TTI 11004; 40 PSI
 - f. Winds: 5mph from south (blowing to north)
 - g. Applicator: Dale Rhoton
 - h. Buffer Zone: yes, 200' around entire field
 - i. Ground speed: 10mph
 - j. Checked registrant's website before application: yes
 - k. Checked Drift Watch before application: yes
 - l. Surveyed site before application: yes
6. I checked recorded wind data at www.wunderground.com for the closest official weather station to the application site for July 14, 2017. Winds at Delaware County Airport, approximately 14 miles south-southwest of the field, were recorded as follows:
 - 10:53am from west-northwest at 6.9mph
 - 11:53am from northwest at 9.2mph
 - 12:53pm from northwest at 9.2mph

- 1:53pm variable at 6.9mph
- 2:53pm from west at 9.2mph
- 3:53pm from west-northwest at 13.8mph

Because there were discrepancies between the wind conditions reported at the site and those recorded at the weather station, wind data at the Marion Municipal Airport, approximately 21 miles west-northwest of the field, was checked and indicated the following:

- 10:35am from west-northwest at 8.1mph
- 11:35am from west-northwest at 9.2mph
- 12:35pm from west at 9.2mph
- 1:35pm from west at 9.2mph
- 2:35pm from west at 10.4mph
- 3:15pm from west at 12.7mph

- The PPDL report stated, “*Cupping/puckering of leaves and discolored leaf tip are indicative of injury from dicamba.*”
- The OISC Residue Lab analyzed the plant samples collected from the fields for dicamba and its breakdown products, DCSA and 5-OH dicamba, and reported the following:

Case # 2017/1173			Investigator: A. Roth		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-474108	Non target beans Morris	Vegetation	3.53	BDL	BDL
2017-474109	Target beans in buffer zone	Vegetation	BDL	6.62	BDL
2017-474110	Target beans	Vegetation	4.40	4.02	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	4
Signature			Date	12/04/17	

- Dicamba was detected in the non-DT soybeans collected from the Morris field. The dicamba breakdown product, DCSA, was detected in soybeans collected from the reported buffer zone in the target field. Dicamba and DCSA were detected in soybeans collected from the interior of the target field. The evidence at the site, the lab reports and the wind data suggest dicamba from the target field application moved off-target to the Morris non-DT soybeans. 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, the recorded wind data from the airports supports Engenia was applied when winds were blowing from a westerly direction, toward the sensitive non-DT soybeans.

10. The Engenia label states, **“DO NOT apply when wind is blowing in the direction of neighboring specialty crops.”**



Andrew R. Roth
Investigator

Date: March 8, 2018

Disposition: Dale Rhoton 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 wind is blowing toward a neighboring specialty crop. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: March 26, 2018
Final Date: June 20, 2018

CASE SUMMARY

Case #2017/1181

Complainant: Kent Crosby
3990 W. CR900 S.
Poneto, IN 46781
260-228-0527

Respondent: Kevin Ramseyer
6495 S. CR200 W.
Poneto, IN 46781
260-827-8079

Certified Applicator

1. On August 7, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans.
2. On August 8, 2017, I spoke with Kent Crosby who reported seeing cupped leaves on non dicamba-tolerant (DT) Roundup Ready soybeans in the field at his dad's farm about ten days prior when another grower alerted him.
3. On August 9, 2017, I met Mr. Crosby at the farm at the northeast corner of CR300W and CR900S in Wells County. The field across the road to the southwest was reportedly being farmed by Ramseyer Farms and was suspected to have been sprayed with a dicamba-containing tank mix. Mr. Crosby reported his field was sprayed with Roundup (glyphosate) in July. We went north of the house to inspect the soybeans on the east side of CR300W.
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 Crosby soybean field. Soybeans in a field, which abutted the target field to the north, also exhibited cupped leaves; the grower of those beans did not call the OISC.
 - b) Observed and photographed what appeared to be mostly uniform cupping and puckering of leaves on non-DT soybean plants in a swath across the Crosby field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Stunted and cupped soybeans were observed along a low swale, which originated at a culvert under CR300W, running to the east through the Crosby field. Soybeans in the target field exhibited no symptoms.
 - c) Collected samples of affected soybean plants from the Crosby field for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue.
 - d) Collected soybeans exhibiting symptoms from approximately 40 feet into the west side of the Crosby field near the swale. Collected soybeans from the field abutting the target field, approximately halfway between the target field and the Crosby field, for reference. Collected soybeans from the northeast corner of the target field, behind the barn. Those three samples were submitted to the OISC Residue Lab for analysis.



Fig.1 Aerial photo of fields



Fig.2 Impacted soybeans in swale



Fig.3 Cupped beans in Crosby field

5. On August 9, 2017, I contacted Kevin Ramseyer who confirmed he sprayed the target field and indicated he had already spoken with Mr. Crosby and a Monsanto rep. Mr. Ramseyer later returned a completed Pesticide Investigation Inquiry which indicated the following:

- a) Application date & time: July 6, 2017, from 4:37pm-5:04pm
- b) Target field: 900S/300W (soybeans), southwest of Crosby field
- c) Pesticides: Roundup PowerMax (glyphosate) EPA Reg. #524-549
Xtendimax (dicamba) EPA Reg. #524-617
- d) Application rate of Xtendimax: 22 oz. per acre
- e) Adjuvants: AG16098 and Class Act
- f) Nozzles: TTI 03
- g) Ground speed: 13mph
- h) Winds: 6mph from south
- i) Applicator: Kevin Ramseyer
- j) Buffer zone: no
- k) Checked registrant's web site before application: yes
- l) Checked Driftwatch/Fieldwatch before application: no
- m) Surveyed application site before application: yes

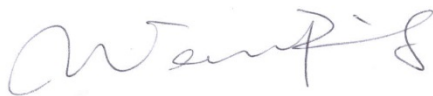
6. I checked recorded wind data at www.wunderground.com for the closest official weather station to the application site for July 6, 2017. The Marion Municipal Airport, 22 miles west-southwest of the application site, recorded the following:

- 4:54pm 12.7mph from the south-southwest (toward Crosby soybeans)


Because of the discrepancy between the wind conditions reported by Mr. Ramseyer and those at the airport, I checked data recorded at the Fort Wayne International Airport, 25 miles north of the application site. Winds were recorded as follows:

- 4:55pm 4.6mph from the southwest (toward Crosby soybeans)

7. The PPDL report stated, *"Cupping and puckering on new leaves and discolored leaf tips is indicative of injury from dicamba."*
8. The OISC Residue Lab analyzed the plant samples for dicamba and its breakdown products, DCSA and 5-OH dicamba, and reported the following.

Case # 2017/1181			Investigator: A. Roth		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-47-4118	Non target beans – Crosby	Vegetation	BDL	BQL	BDL
2017-47-4119	Non target beans – field between	Vegetation	9.07	BQL	BDL
2017-47-4120	Target beans	Vegetation	BDL	3.67	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	4
<div> <div>Signature</div>  <div>Date</div> <div>12/4/17</div> </div>					

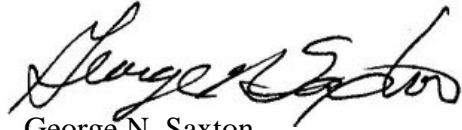
9. The dicamba breakdown product, DCSA, was detected at levels below quantification limits in the non-DT soybeans collected from the Crosby field. Dicamba was detected in soybeans collected from the field abutting the target field (field between the Crosby field and the target field). DCSA was detected in the soybeans from the target field. The evidence at the site, the lab reports and the wind data suggest dicamba from the application to the target field moved off-target, across the abutting field, to the Crosby soybean 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, the wind data from the two airports supports Xtendimax was applied when winds were blowing toward the sensitive non-DT soybeans.
10. The Xtendimax label states, **“DO NOT APPLY this product when the wind is blowing toward adjacent commercially grown dicamba sensitive crops, including but not limited to, commercially grown tomatoes and other fruiting vegetables (EPA crop group 8), cucurbits (EPA crop group 9), and grapes.”** It further states, “Before making an application, the applicator must survey the application site for neighboring non-target sensitive crops. **The applicator must also consult sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site.”**


 Andrew R. Roth
 Investigator

Date: March 9, 2018

Disposition: Kevin Ramseyer 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.

Kevin Ramseyer 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 wind is blowing towards a susceptible crop. A civil penalty in the amount of \$100.00 was assessed for this violation.

A handwritten signature in black ink, appearing to read "George N. Saxton", written in a cursive style.

George N. Saxton
Compliance Officer

Draft Date: April 9, 2018
Final Date: June 20, 2018

CASE SUMMARY

Case #2017/1189

Complainant: Carol Johnson
7309 Old Lincoln Highway
Hobart, Indiana 46342
219-947-2181

Respondent: Nathan N. Shrock
Crosswinds Aviation Services LLC
11701 W 1800 S
LaCrosse, Indiana 46384
219-313-3900

Certified Applicator

1. On August 9, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report aerial pesticide application drift to her person. She stated she contacted Crop Production Services (CPS) and was told the pesticides involved were Endigo insecticide and Priaxor fungicide. She also stated she had a shirt she would surrender for analysis with the understanding the shirt would not be returned to her.
2. On August 11, 2017, I met the complainant Carol Johnson at her residence. Ms. Johnson stated that she was carrying in groceries on August 9, 2017, and noticed a plane making an aerial pesticide application on the field adjacent to her property. Ms. Johnson stated that she felt a mist from the plane while she was standing in her driveway. Ms. Johnson stated her husband and son were also outside at this time. I spoke to Ms. Johnson's son Parker Johnson and he stated he was standing next to one of the barns helping his father, which was partially covered by the tree canopy.



Figure 1

- Figure 1 is an aerial photograph of the complainant's property outlined in green and the target field outlined in red
3. I took samples from the complainant's property near where the complainant was standing. I swabbed the top of a woodpile that had not been moved since the application. In addition, I swabbed the ground where Ms. Johnson's son stated he was standing, since the shirt he was wearing was being submitted for analysis. I also took swab, vegetation, and soil samples from the target field and submitted them to the OISC Pesticide Residue Laboratory for analysis.



Figure 2



Figure 3

- Figure 2 is a photograph of the woodpile area that was swabbed for analysis as indicated by the yellow arrow
- Figure 3 is a photograph of the area where Ms. Johnson's son was standing as indicated by the blue arrow



Figure 4

- Figure 4 is a google map image from street view at the complainant's residence. The red arrow indicated the approximate location of the complainant at the time of exposure.



Figure 5

- Figure 5 is a google earth image of the complainant's property outlined in green and target area outlined in red.
 - The light blue figure is the approximate area Ms. Johnson was when she felt the drops on her arm.
 - The dark blue figure is the approximate area Ms. Johnson's son was standing when the application occurred.
 - Marker A is the approximate area where I took swab samples on the woodpile and ground stone where Ms. Johnson's son was standing.
4. On August 11, 2017, I spoke to the applicator Nathan Shrock. Mr. Shrock stated that he would provide a written statement in addition to his aerial application records. Mr. Shrock stated that he had the map images that show he was using every precaution not to spray near Ms. Johnson's residence. The pesticides Mr. Shrock used were the following:
- **Endigo ZC, EPA #100-1276, Active Ingredients: Thiamethoxm 12.6%, Iambda-Cyhalothrin 9.48%**
 - **Fitness, EPA #34704-1031, Active Ingredient: Propiconazole 41.8%**
 - **Priaxor, EPA #7969-311, Active Ingredients: Pyraclostrobin 28.58%, 14.33%**



Figure 5

- Figure 5 is the aerial applicator's map
- The blue arrow indicates the complainant's property

See below for the applicator's written statement:

“Written Statement

prepared on August 19, 2017

re: human exposure complaint

On Wednesday, August 9, 2017 at approximately 1:30 p.m. CDT I, Nathan Schrock, flew my sprayequipped helicopter N19TV to the soybean field located near the 7300 blk of Old Lincoln Hwy in Hobart, IN for the purpose of aerial application. This field's center coordinates are N 41.476436° W 87.246761°.

The grower for this field is Andrew Wirtz 389 N 518 W Valparaiso, IN 46385 219-712-3211. I was contacted and hired to perform the application by Darel Walker of Crop Production Services 812 S 250 W Hebron, IN 46341 219-996-2500. A fungicide/insecticide mix was being applied to the soybeans in this field consisting of 4 fl oz of Priaxor, 4 fl oz of Fitness, 3.5 fl oz of Endigo ZC, and 1 fl oz of Franchise which was used as a surfactant.

The wind at the time of application was out of the south-southeast at approximately 4 mph. I surveyed the area by circling the field a couple of times and noticed that there were three houses in the immediate vicinity along the north edge of the field. A house just west of the field border, a house in the middle of the field which was surrounded by trees, and a house along the east border of the field. All of these were on the north edge along Old Lincoln Hwy. The house on the N/E corner appeared to be having some work being done and there were a couple of contractor vans in the driveway, but no one was working outside. I did not see anyone around either of the other two houses. I began working the field north and south working east to west in a skip pattern. As I neared completion of the first time through the skip pattern, I noticed a female subject standing in the front yard of the house on the N/W corner. She was holding a small child on her hip and pointing at the helicopter as I flew by. This was as I made a pass between the houses on the N/W corner and the house surrounded by trees in the middle of the field. On my next pass coming north, I pulled up early so as to not overfly the horse barn and I noticed that the female subject and child were no longer visible in the front yard. After I finished the second half of the skip pattern, I cleaned up the south edges of the field but not the north edges because of the proximity to the houses and the slight but present south wind. I finished the field at 1:53 p.m. CDT and flew to the Gary Airport KGYG to get fuel and allow my tender truck the time necessary to travel to the next scheduled field which was in Chicago Heights, IL.

When I landed at the Gary Airport, and while waiting for the prescribed cool down period to allow for complete shut-down of the turbine engine, I received a phone call from Darel Walker. He stated that he

had received a phone call from Andrew Wirtz who had been called by Carolyn [sp?] Johnson advising that she had been sprayed by my helicopter. I was further advised that Ms. Johnson was complaining of skin irritation on her arm. Darel provided me with a phone number for Ms. Johnson. I completed the shut-down checklist on the aircraft, put in a fuel order and immediately went inside to call Ms. Johnson. I made contact with her and introduced myself. She immediately began talking in an agitated manner and demanding to know why I hadn't "notified all property owners before spraying like [I] was required to do." I explained to her that I was hired by a retailer who had contact with the grower and that both of these parties knew of the application. However, I had no information on landowner nor did I have any statutory or administrative obligation to notify landowners. I explained that I had surveyed the area by circling the field twice and that I did not observe any people outside the houses before I began the application. I inquired as to the location of her house and she informed me that hers was the house surrounded by trees in the middle of the north edge of the field. I asked where she was standing when she was sprayed and she replied, "Walking from my mailbox to the front door." She stated that she felt "three drops on [her] arm." I asked if she needed medical attention and she said, "I don't know. I'm calling poison control and then my attorneys!" I told her that rinsing her arm thoroughly with cold running water would be the first appropriate measure if she had come in contact with these chemicals. She asked what I was spraying and I informed her that it was a fungicide/insecticide mix and that the insecticide would most likely be the cause of any irritation if there was skin contact. She asked what the names of the chemicals were and I told her exact spellings. She further asked for my name and phone number, which I provided. I offered my apologies for the unfortunate events and told her that if she needed anything else to please call. She responded with, "Your apology doesn't cut water!" I explained that I understood that it was just words, but that the words were meant to express my concern for her situation. She demanded to know if I had ever been exposed to these chemicals and I assured her that I had been exposed to these exact chemicals as well as others on multiple occasions. I explained that I understood the skin irritation that comes from them and that I had been exposed on my arms, legs and even face. She then expressed concern for her husband and her son who were "out back working" and stated, "Hard telling what they breathed in!" Since this was the first I had heard of additional persons outside, I asked if they had been sprayed? She responded that she didn't know. I reiterated that if she needed anything else that she should feel free to call me.

Approximately 10 minutes later, I received a call from Ms. Johnson asking again for the spelling of the chemicals. She stated that poison control didn't have them listed. I again verified that she had received the correct spelling and she stated that she would "have to look them up [herself]."

On Thursday, August 10, 2017 I attempted to call Ms. Johnson to see how she was doing but there was no answer. On Friday, August 11, 2017 I again called Ms. Johnson but no one picked up the phone. I left a message expressing my concern for her well-being and that I hoped that the irritation on her arms had subsided after 24 hours as was typical in my experience. Approximately 15 minutes later, I received a call from Melissa Rosch, Investigator with the Office of the Indiana State Chemist. Ms. Rosch advised that she was at the home of Ms. Johnson investigating the human exposure complaint and began asking questions pertaining to the application.

I have provided an application report, including the GPS coverage map, as well as verbal statements to Ms. Rosch. As of the time of this written statement, I have had no further contact with Ms. Johnson. She has not returned my calls, nor have I attempted any further.

Nathan Schrock F248393

Crosswind Aviation Services, LLC

Applicator license: [REDACTED]

Business license: [REDACTED]"

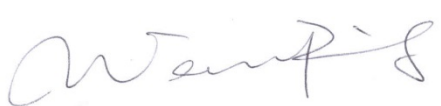
5. Mr. Shrock's records show the weather during his aerial application was the following:

- Temperature: 79 degrees
- Wind direction: 163
- Wind speed: 4.0
- Humidity 49.0
- End time: 1:53 PM

6. I checked the weather records for the date and time (1:30pm to 1:53pm) of Mr. Shrock's application. The weather report from KGYG states:

12:45 PM	77.0 °F	55.4 °F	47%	-	12.0 mi	NNE	8.1 mph	-	N/A	Mostly Cloudy
METAR KGYG 091745Z 03007KT 12SM BKN055 25/13 3019										
1:45 PM	77.0 °F	53.6 °F	44%	30.18 in	10.0 mi	NNE	6.9 mph	-	N/A	Mostly Cloudy
METAR KGYG 091845Z COR 03006KT 10SM BKN060 25/12 A3018										

7. I received the final report from OISC Pesticide Residue Laboratory which shows the following sample analysis:

Case # 2017/1189			Investigator: M. Rosch		
Sample #	Sample Description	Sample Matrix	Amount Found (ng/swab or clothing)		
			Pyraclostrobin	Thiamethoxam	Propiconazole
2017-355629	Trip blank swab	Swab	BDL	BDL	BDL
2017-355630	Control swab -Acetone	Swab	BDL	BDL	BDL
2017-355631	T Shirt worn by son	Clothing	789 ng/shirt	106 ng/shirt	979 ng/shirt
2017-355632	Wood swab top- Acetone	Swab	6.11	BDL	7.53
2017-355633	Ground swab -Stone -A	Swab	2.69	BDL	3.94
2017-355634	Ground swab 2- Stone under tree - A	Swab	2.61	BDL	3.20
2017-355635	Target field swab- Acetone	Swab	1350*	28.8	1120*
2017-355636	Target field vegetation	Vegetation	Not tested	Not tested	Not tested
2017-355637	Target field soil	Soil	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 *minimum amount reported due to concentration exceeded calibration curve range.					
LOQ (ng/swab)	Swab		0.2	1	0.2
LOQ (ng/clothing)	Clothing		20	100	20
Signature			Date	9/15/17	

8. The label violations for Mr. Shrock are the following:

- Endigo ZC, EPA #100-1276, Active Ingredients: Thiamethoxam 12.6%, Iambda-Cyhalothrin 9.48%**
 - Page 3 of the label reads:
"Do not apply when weather conditions favor drift from treated areas."
 - Page 5 of the label reads:
"Do not allow this product to drift."
 - Page 9 of the label reads:
"Do not apply this product in a way that will contact workers or other persons, either directly or through drift."

- **Fitness, EPA #34704-1031, Active Ingredient: Propiconazole 41.8%**
 1. Page 2 of the label reads:
"Do not apply this product in a way that will contact workers or other persons, either directly or through drift."
 2. Page 5 of the label reads:
"Do not apply in a manner which results in exposure to humans or animals."
- **Priaxor, EPA #7969-311, Active Ingredients: Pyraclostrobin 28.58%, 14.33%**
 1. Page 2 of the label reads:
"Do not apply this product in a way that will contact workers or other persons, either directly or through drift."
 2. Page 6 of the label reads:
"Do not apply under circumstances where possible drift to unprotected persons, to food, forage, or other plantings that might be damaged, or crops thereof rendered unfit for sale, use or consumption can occur."

9. In this case, it appears there was a violation based on the following:

- The active ingredient's Mr. Shrock was using in his aerial pesticide application were found on the complainant's property and clothing.
- The wind direction varied from NNE (as stated from KGYG) to 163 degrees (from Mr. Shrock's weather data), which both incorporate a wind direction from the east to some degree. This direction of wind would blow directly at the complainant's property.



Melissa D. Rosch
Investigator

Date: February 24, 2018

Disposition: Nathan N. Shrock 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 this was his first violation of similar nature. Consideration was also given to the fact there was potential for human harm.



George N. Saxton
Compliance Officer

Draft Date: May 23, 2018
Final Date: July 9, 2018

CASE SUMMARY

Case #2017/1191

Complainant: Brad Fiechter
3670 E. CR450 S.
Bluffton, IN 46714
260-273-2426

Respondent: Spencer Pfister
6277 E. CR100 S.
Bluffton, IN 46714
260-438-5634

1. On August 10, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans.
2. On August 14, 2017, I spoke with Brad Fiechter who reported he noticed cupped leaves on non dicamba-tolerant (DT) soybeans in his field about a week prior. He indicated two fields across the road to the west of his field were sprayed with dicamba-containing tank mixes.
3. On August 15, 2017, I met Mr. Fiechter and followed him to his field, which occupied the southeast corner of CR700S and CR100E in Wells County. He indicated the field on the southwest corner was sprayed by Helena Chemical (Case #2017/1311) and the field abutting it to the south was being farmed by Pfister Farms. Mr. Fiechter had reportedly spoken to both parties about the symptoms observed on his beans. He stated his Liberty Link beans were sprayed June 10, 2017, with Liberty (glufosinate).
4. During my on-site investigation, I did the following:
 - a) Identified two potential sources of dicamba adjacent to the Fiechter soybean field. The two target fields were across CR100E, a gravel road, to the west of the Fiechter soybeans (Fig.1). There were no fence lines or other biological barriers separating the crops.
 - b) Observed and photographed widespread, mostly uniform cupping and puckering of leaves (no distinct pattern) on soybean plants across the Fiechter field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the two target fields exhibited no symptoms.
 - c) Collected samples of affected soybean plants from the Fiechter field for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue.
 - d) Collected plant samples from soybeans exhibiting symptoms approximately 40 feet into the west side of the Fiechter field, across CR100E from the target fields. Collected soil and soybean samples from approximately 40 feet into the Pfister (south) target field. Those two samples were submitted to the OISC Residue Lab for analysis. *Because on-site investigations were conducted at two target fields, and samples were submitted at the same time, the lab results for both fields were reported on one report (see table below).



Fig.1 Aerial photo of fields



Fig.2 Corner of target fields, road & Fiechter field



Fig.3 Cupped leaves, south end of Fiechter field




Fig.4 Cupped/puckered leaves on Fiechter beans

5. On August 15, 2017, I contacted Courtney Pfister who confirmed the target field was sprayed with Xtendimax in July. Mr. Pfister later returned a completed Pesticide Investigation Inquiry for the application which indicated the following:
 - a) Application date & time: July 6, 2017, from 2pm-approximately 4pm
 - b) Target field: Tomato Camp field (soybeans), southwest of Fiechter soybeans
 - c) Pesticides: Xtendimax (dicamba) EPA Reg. #524-617
 - d) Application rate of Xtendimax: 22 oz. per acre
 - e) Adjuvants: none listed
 - f) Nozzles: Hardi Yellow (air induction) nozzles
 - g) Ground speed: About 9mph
 - h) Winds: 3-5mph from southwest (toward Fiechter soybeans)
 - i) Applicator: Spencer Pfister
 - j) Buffer zone: 120 feet east end (near road and Fiechter soybeans)
 - k) Checked registrant's web site before application: no
 - l) Checked Driftwatch/Fieldwatch before application: no
 - m) Surveyed application site before application: yes

6. I checked recorded wind data at www.wunderground.com for the closest official weather station to the application site for July 12, 2017. The Fort Wayne International Airport, which is 23 miles north of the application site, recorded the following:

• 2:43pm	8.1mph from south-southwest (toward Fiechter soybeans)
• 2:54pm	9.2mph from south
• 3:10pm	9.2 from south-southwest
• 3:54pm	8.1 from southwest


7. The PPDL report stated, “Cupping/puckering of leaves and discolored leaf tip are indicative of injury from dicamba.” It further stated, “A common fungal foliar disease, Brown Spot, was confirmed on lower leaves.”
8. The OISC Residue Lab analyzed the plant samples for dicamba and its breakdown products, DCSA and 5-OH dicamba, and reported the following (samples described as “North” were collected for Case #2017/1311 and do not pertain to this case):

Case # 2017/1191			Investigator: A. Roth		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-474135	Non target beans- Fiechter	Vegetation	BDL	BQL	BDL
2017-474136	Target beans- South field	Vegetation	BDL	10.5	BDL
2017-474137	Target soil- South field	Soil	BDL	13.2	BDL
2017-474138	Target beans- North field	Vegetation	BDL	BDL	BDL
2017-474139	Target soil- North field	Soil	1.37	35.5	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 Application=6/27/17 (north field); 7/7/17 (south field) Sampling=8/15/17 Product applied=Xtendimax+ Roundup					
LOQ (ppb)	Soil		1	2	2
LOQ (ppb)	Vegetation		4	0.4	4
Signature			Date	12/01/17	

9. The dicamba breakdown product, DCSA, was detected in soybean plants collected from the Fiechter field but was below quantification limits. DCSA was detected in the soybeans and soil collected from within the reported buffer zone in the Pfister (south) target field. The evidence at the site and the lab reports suggest dicamba applied to one or more of the target fields (north and/or south) moved off-target to the Fiechter soybeans. It is difficult to determine whether dicamba moved off-target due to application into an inversion or volatility at some point after the application, but the lack of a distinct pattern of symptoms does not support that direct particle drift occurred. The wind conditions, provided by Mr. Pfister, and verified at the airport, supports that Xtendimax was applied to the south target field when the wind was blowing toward the sensitive non-DT soybeans.

10. The Xtendimax label states:

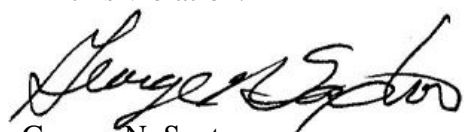
- **“DO NOT APPLY this product when the wind is blowing toward adjacent commercially grown dicamba sensitive crops, including but not limited to, commercially grown tomatoes and other fruiting vegetables (EPA crop group 8), cucurbits (EPA crop group 9), and grapes.”**
- **“DO NOT tank mix any product with Xtendimax With VaporGrip Technology unless: You 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...”**
- **“Before making an application, the applicator must survey the application site for neighboring non-target sensitive crops. The applicator must also consult sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site.”**


Andrew R. Roth
Investigator

Date: March 21, 2018

Disposition: Spencer Pfister 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 before application.

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


George N. Saxton
Compliance Officer

Draft Date: April 18, 2018
Final Date: June 21, 2018

CASE SUMMARY

Case #2017/1194

Complainant: David Houser
1722 N. CR500 W.
Decatur, IN 46733
260-820-1847

Respondent: Kevin Sudhoff
4179 SR 49
Fort Recovery, OH 45846
419-375-1029

Not Licensed

1. On August 10, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans.
2. On August 14, 2017, I spoke with David Houser who reported he noticed leaf cupping on non dicamba-tolerant (DT) Roundup Ready soybeans in his fields about a week prior. He believed a field across the road to the south, which was being farmed by Sudhoff Brothers Farms, had been sprayed with a dicamba-containing tank mix.
3. On August 14, 2017, Mr. Houser was not available to meet with me but he indicated his brother, Mike Houser, lived right around the corner from the fields and he could show me the soybeans. I met with Mike Houser and followed him to the adjoining fields on the north side of CR750N in northern Jay County. Mr. Houser reported the non-DT soybeans had been commercially sprayed with Roundup (glyphosate) in mid-July by Harvest Land Co-op.
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 Houser soybean fields. The target field was directly across CR750N, south of the Houser soybeans, with approximately 45 feet separating the crops.
 - b) Observed and photographed what appeared to be mostly uniform, widespread cupping and puckering of leaves across the canopy and new growth of non-DT soybean plants in the Houser fields. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Cupping and puckering was observed on plants in the southern portion of the Houser soybeans. Symptoms were less noticeable across the road from a wooded area. Soybeans in the target field exhibited no symptoms.
 - c) Collected soybean plant samples exhibiting symptoms from the Houser soybean fields for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue.
 - d) Collected plant samples from soybeans exhibiting symptoms approximately 40 feet into the Houser fields where they adjoined. Collected plant samples from soybeans approximately 40 feet into the target field, south of the road. Those samples were submitted to the OISC Residue lab for analysis.



Fig.1 Aerial photo of fields



Fig.2 Target beans and CR750N



Fig.3 Houser beans near road



Fig.4 Cupped leaves across canopy



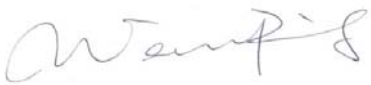
Fig.5 Cupped/puckered leaves




Fig.6 Cupped and discolored leaf tips

5. On August 14, 2017, I contacted Kevin Sudhoff who confirmed he sprayed the target field with Xtendimax on July 18, 2017. Mr. Sudhoff later returned a completed Pesticide Investigation Inquiry which indicated the following:
 - a) Application date & time: July 18, 2017, from 1030am-5pm (multiple fields)
 - b) Target field: Corner of SR18 and CR50E (soybeans), south of Houser soybeans
 - c) Pesticides: Roundup PowerMax (glyphosate) EPA Reg. #524-549
Xtendimax (dicamba) EPA Reg. #524-617
 - d) Application rate of Xtendimax: 22 oz. per acre
 - e) Adjuvants: Astonish
 - f) Nozzles: TTI11004
 - g) Ground speed: 9-11mph
 - h) Winds: 3mph from east-southeast (toward Houser soybeans)
 - i) Applicator: Kevin Sudhoff
 - j) Buffer zone: not provided
 - k) Checked registrant's web site before application: yes
 - l) Checked Driftwatch/Fieldwatch before application: yes
 - m) Surveyed application site before application: yes
6. I checked recorded wind data at www.wunderground.com for the closest official weather stations to the application site for July 18, 2017, and found the following:
 - The Delaware County Airport, which is 30 miles southwest of the application site, recorded winds ranging from out of the west to out of the northeast. Wind speeds ranged from "Calm" up to 5.8mph.
 - The Fort Wayne International Airport, which is 31 miles north-northwest of the application site, recorded winds from various directions, including "Variable". Wind speeds ranged from "Calm" up to 5.8mph.
 - The Marion Municipal Airport, which is 36 miles west of the application site, recorded winds ranging from out of the west-southwest to out of the west-northwest. Several recordings were listed only as "Calm" during the time of the application. Wind speeds were recorded at 5.8mph or less.

7. The PPDL report stated, “Cupping/puckering of leaves and discolored leaf tip are indicative of injury from dicamba.” It further stated, “A common fungal foliar disease, Brown Spot, was confirmed on lower leaves.”
8. The OISC Residue Lab analyzed the plant samples for dicamba and its breakdown products, DCSA and 5-OH dicamba, and reported the following

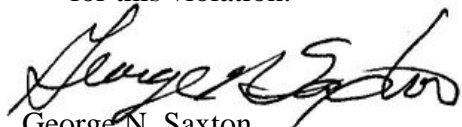
Case # 2017/1194			Investigator: A. Roth		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-47-4125	Non target beans -Houser	Vegetation	4.18	0.816	BDL
2017-47-4126	Target beans	Vegetation	9.13	290	BDL
PPM= Parts Per Million; PPB=Parts Per Billion; CONF=Confirmed; 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	4
Signature			Date	12/4/17	

9. Dicamba and its breakdown product, DCSA, were both detected in the non-DT soybeans collected from the Houser field and in soybeans collected from the target field. The evidence at the site and the lab reports suggest dicamba from the application made to the target field moved off-target to the Houser soybeans. 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. While wind data from the three airports was conflicting and inconclusive, wind conditions at the time of the application, provided by Mr. Sudhoff, support that the Xtendimax was applied while winds were blowing toward the Houser sensitive non-DT soybeans.
10. The label for Xtendimax states, “**DO NOT APPLY this product when the wind is blowing toward adjacent commercially grown dicamba sensitive crops, including but not limited to, commercially grown tomatoes and other fruiting vegetables (EPA crop group 8), cucurbits (EPA crop group 9), and grapes.**”


 Andrew R. Roth
 Investigator

Date: March 14, 2018

Disposition: Kevin Sudhoff 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 winds are blowing toward susceptible crops. A civil penalty in the amount of \$100.00 was assessed for this violation.


 George N. Saxton
 Compliance Officer

Draft Date: April 9, 2018
 Final Date: June 20, 2018

CASE SUMMARY

Case #2017/1199

Complainant: Jan Zurcher
8210 S. SR 157
Clay City, Indiana 47841
812-878-0013

Respondent: Kevin Schafer
Sonrise Farm
500 Lankford Street
Clay City, Indiana 47841
812-841-3821

Private Applicator

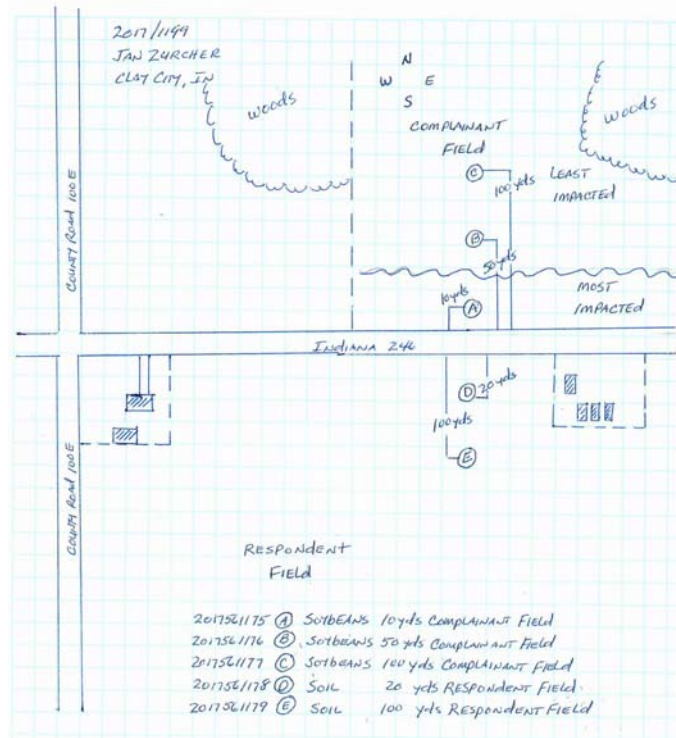
1. On August 11, 2017, Jan Zurcher spoke with Joe Becovitz, Pesticide Program Specialist for the Office of Indiana State Chemist (OISC) regarding a dicamba drift complaint. Mr. Zurcher stated he believed the dicamba application was made approximately three weeks ago.
2. On August 17, 2017, I met with the complainant at his residence. We drove to the investigation site. Mr. Zurcher told me he believed the farmer (Schafer) across the road (SR 246) planted dicamba tolerant soybeans. Mr. Zurcher also believed Mr. Schafer made an application of dicamba approximately four weeks prior to my arrival. He said by the looks of his soybeans, the dicamba drifted onto his (Zurcher) Roundup Ready soybeans. He told me he first noticed the “dicamba exposure symptoms” two weeks ago.
3. During my on-site investigation I did the following:
 - a. I checked the complainant’s field. It appeared as the growth regulator-type symptoms of leaf cupping and puckering were most impacted approximately 30-60 feet from the southern edge of the complainant’s field. The least impacted area of the complainant’s field appeared to be in the northern part.
 - b. I photographed the complainant’s soybean field showing the growth regulator-type symptoms. (see photos below)
 - c. I collected some of the impacted soybean plants for submission to the Purdue Plant and Pest Diagnostic Lab (PPDL) for analysis.
 - d. I collected the following environmental samples in Mylar bags for submission to the OISC Residue Lab for analysis (see diagram):
 - 2017561175 soybeans 10 yards into complainant’s field
 - 2017561176 soybeans 50 yards into complainant’s field
 - 2017561177 soybeans 100 yards into complainant’s field
 - 2017561178 soil 20 yards into respondent’s field
 - 2017561179 soil 100 yards into respondent’s field



Complainant's Soybean Field



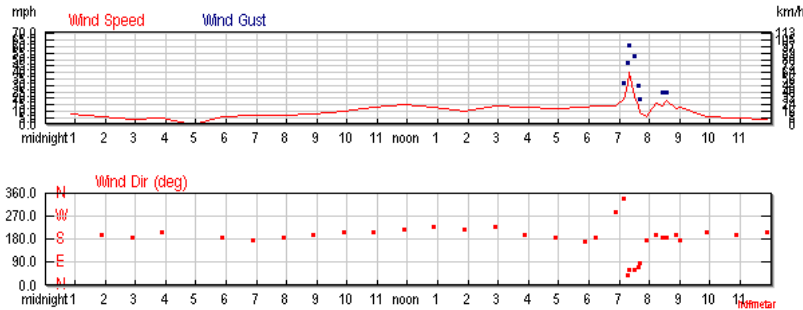
Close Up Soybeans



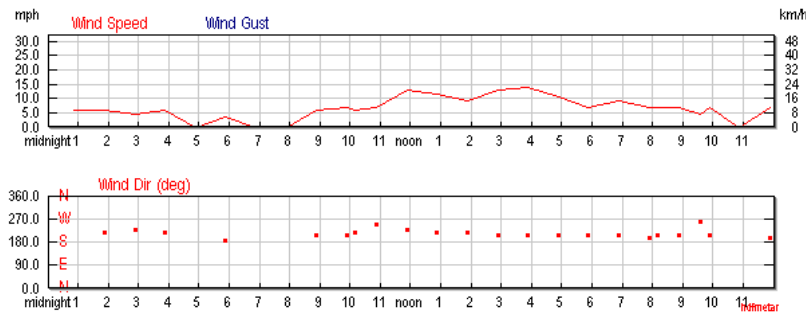
4. I made contact with Mr. Schafer of Sonrise Farm. Mr. Schafer confirmed he made a dicamba application to the field across the road from the complainant's field. Kevin Schafer agreed to send a completed Pesticide Investigation Inquiry (PII).
5. I received the completed PII from Mr. Kevin Schafer of Sonrise Farm. According to the completed PII, Mr. Schafer made an application of Fexapan (EPA #352-913; active ingredient: dicamba) and Abundit Edge (EPA #524-549-352; active ingredient: glycine). The completed PII also contained the following information:
 - a. Pesticide application was made on **July 12, 2017 between 8:15 and 10:00am**
 - b. Application was made to the field south of the complainant's field.
 - c. Application rate of **22 ounces per acre of Fexapan and Abundit Edge**
 - d. Application was made with **TeeJet 11004 nozzles**.
 - e. Boom height was set at **24"**
 - f. Equipment ground speed was recorded at **9 mph**
 - g. Checked Fexapan web-site: **Yes**
 - h. Checked Fieldwatch/Driftwatch prior to application: **Yes**
 - i. Surveyed application site prior to application: **Yes**
 - j. Buffer used (**None indicated**)
 - k. Wind speed at time of application was recorded at **3 mph from the southwest**
 - l. Certified application: **Kevin Schafer**

6. I checked the historical weather data at www.wunderground.com for July 12, 2017 for the application site. I obtained information for Terre Haute Municipal Airport (21 miles northwest of application site), Monroe County Airport (30 miles southeast of application site) and Mount Carmel Airport (70 miles southwest of application site) (see tables below)

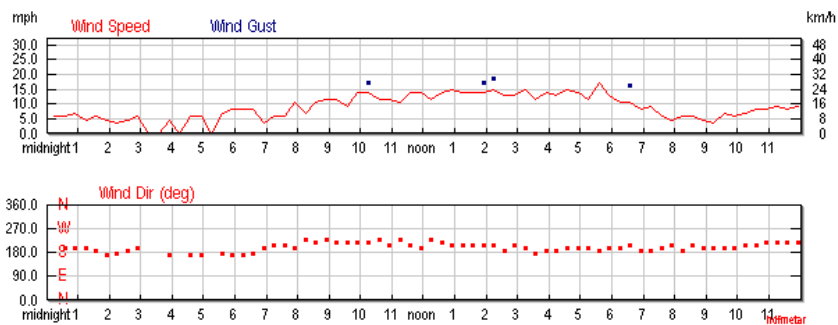
**Terre Haute Municipal Airport
Terre Haute, Indiana
21 miles Northwest**



**Monroe County Airport
Bloomington, Indiana
30 miles Southeast**




**Mount Carmel Municipal Airport
Mount Carmel, Illinois
70 miles Southwest**



- According to the weather information from the Terre Haute Municipal Airport, the wind was blowing 3-5 mph from the south in a northerly direction toward the complainant's soybean field
- According to the weather information from Monroe County Airport, the wind was blowing 3-6 mph from the south in a northerly direction toward the complainant's soybean field
- According to the weather information from Mount Carmel Airport, the wind was blowing 6-11 mph from the southwest in a northwesterly direction toward the complainant's soybean field

7. I received the following information from PPDL: “*Cupping/puckering of leaves and discolored leaf tip are indicative of injury from dicamba*”
8. I received the following analysis from the OISC Residue Lab:

Case # 2017/1199			Investigator: K. Gibson		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-56-1175	Soybeans - Complainant - 10 yards	Vegetation	BDL	BDL	BDL
2017-56-1176	Soybeans - Complainant - 50 yards	Vegetation	BDL	BDL	BDL
2017-56-1177	Soybeans - Complainant - 100 yards	Vegetation	BDL	BDL	BDL
2017-56-1178	Soil - Respondent - 20 yards	Soil	20.1	117	BDL
2017-56-1179	Soil - Respondent - 100 yards	Soil	BQL	29.8	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	4
LOQ (ppb)	Soil		2	1	2
Signature		Date	12/6/17		

The Residue Lab results indicated no presence of dicamba in any of the complainant's soybean samples. Weather information from three different locations as well as wind information from the applicator on the PII, indicated the wind was blowing toward the complainant's field at the time of application.

9. The label for Fexapan reads in part,
- “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.”
 - “**DO NOT APPLY** this product when the wind is blowing toward adjacent commercially grown dicamba sensitive crops, including but limited to, commercially grown tomatoes and other fruiting vegetables (EPA crop group 8), cucurbits (EPA crop group 9) and grapes”



Kevin W. Gibson
Pesticide Investigator

Date: February 28, 2018

Disposition: Kevin Schafer 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: March 26, 2018
Final Date: June 20, 2018

CASE SUMMARY

Case #2017/1219

Complainant: Leah Boits, Restoration Programs Coordinator
Indiana Dept. of Environmental Mgmt. (IDEM)
402 W. Washington Street, Room W273
Indianapolis, Indiana 46204
317-232-5821

Respondent: William Powell
Xtreme Aviation
66 E. Piney Grove Road
Falkville, Alabama 35622
256-303-1555

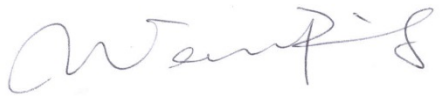
Applicator

1. On August 16, 2017, Leah Boits of IDEM contacted George Saxton, Compliance Officer with the Office of Indiana State Chemist regarding a fish kill in Bachelor Creek located in Wabash Indiana. Ms. Boits stated based on the condition of the fish, it appeared the kill may have happened prior without being detected. She stated the kill appeared to begin at an outlet conveying Spinner Ditch just east of SR15 extending west almost to the county line. She advised Indiana Conservation Officer Ben Duecker had also been contacted regarding this fish kill.
2. I contacted Ms. Boits and she stated Mckillip Seeds of Wabash Indiana had made some pesticide applications in the area of Bachelor Creek. She also advised there had been an aerial application made to the cornfield on the north side of Bachelor Creek.
3. On August 21, 2017, I met with Troy McKillip, owner of McKillip Seeds at his business. He stated they had supplied the pesticide product for the aerial application to the cornfield on the north side of the creek west of old SR 15 N. He stated Vertical Vegetation out of Darlington, Indiana was the aerial application company they used to make the aerial pesticide application.
4. I made contact with Vertical Vegetation and spoke with Ms. Amanda Burris. She stated they sub-contracted Mr. William Powell of Xtreme Aviation in Alabama and he made the aerial pesticide application to the cornfield (Lennies north) on July 18, 2017 between 7:25 am and 7:52 am. She provided me with the application record, which indicated Mr. Powell applied Headline Amp fungicide EPA Reg. #7969-291 with the active ingredients pyraclostrobin and metconazole. The application record is in this case file.
5. I took photographs of the area, including the location of the target cornfield in relationship to the creek. I collected soil and vegetation samples from the target cornfield and vegetation samples by the target field at the creek bank and from the creek at the

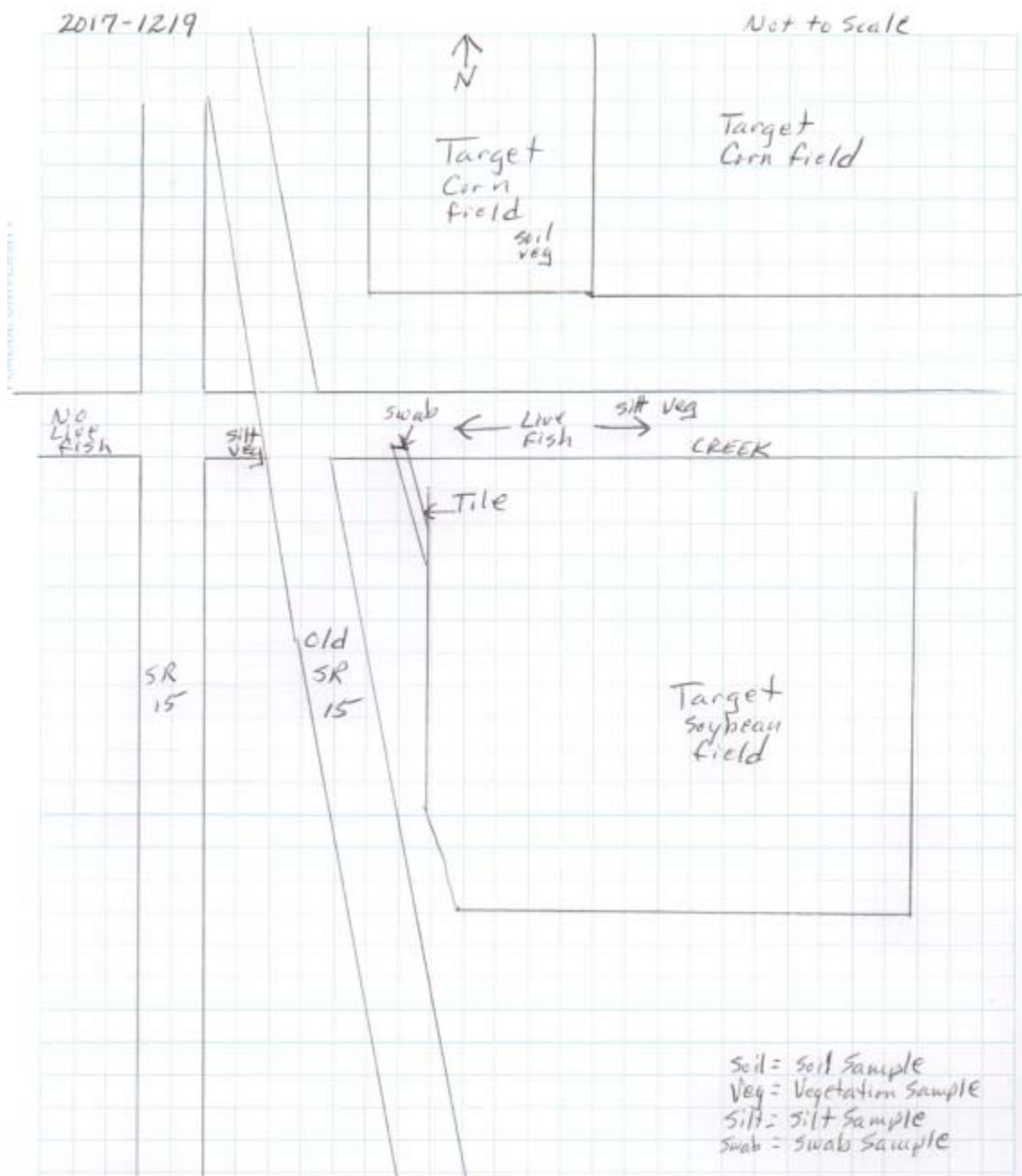
target area. I also collect silt from the creek at the target area. While in the area, I observed a tile spilling into the creek on the south side of the creek, further west of the original target location. I found the tile came from a soybean field located on the south side of the creek, south of the target cornfield. (See OISC Case #2017-1309). The following photographs show these locations.



6. The OISC database indicated Mr. Powell was not a certified category 11 applicator in the State of Indiana. See OISC Case #2018-0140. I spoke with Mr. Powell on the telephone and he confirmed the information provided to me by Ms. Burris of Vertical Vegetation. I advised Mr. Powell I would be sending a Pesticide Investigation Inquiry (PII) to him. He received the PII, completed it and returned it to OISC. The PII confirmed the information provided to me and stated the winds were N at 2 mph. The PII is in this case file.
7. I researched the Weather Underground website for the weather conditions at the nearest reporting station, at the dates and times of the pesticide application. The winds on July 18, 2017 at the time of the aerial pesticide application made by Mr. Powell were N @ 1.7 – 2.2 MPH.
8. On February 8, 2018, I received a report from the OISC residue lab. The lab report indicated the active ingredient metconazole, which was in the Headline Amp fungicide applied by Mr. Powell during the aerial application, was detected in small quantities from the vegetation sample collected on the bank at the north side of the creek nearest the target corn field and from the silt sample collected from the creek west of the tile. It was also detected at larger quantities in the vegetation from the creek west of the tile. The following is a copy of the OISC residue lab report.

Case # 2017/1219			Investigator: B. Brewer				
Sample #	Sample Description	Sample Matrix	Amount Found (ppb or ng/swab)				
			Metconazole	Azoxystrobin	Propiconazole	Tebuconazole	Clethodim and Metabolites
2017-335116	Trip blank	Swab	BDL	BDL	BDL	BDL	Not tested
2017-335117	Control swab	Swab	BQL	BDL	2.37	BDL	Not tested
2017-335118	Swab from tile exit into creek	Swab	13.5	93.7	180	3.33	Not tested
2017-335119	Soil target	Soil	34.8	26.8	12.2	BDL	BDL
2017-335120	Vegetation target	Vegetation	11.5	BDL	BDL	BQL	BDL
2017-335121	Silt creek at target	Soil	BQL	BQL	BDL	BDL	BDL
2017-335122	Vegetation creek at target	Vegetation	BQL	BDL	BDL	BDL	BDL
2017-335123	Vegetation by target at creek bank	Vegetation	0.73	BDL	BDL	0.844**	BDL
2017-335124	Silt from creek west of tile creek	Soil	1.59	9.08	24.3	0.681	Not tested
2017-335125	Vegetation from creek west of tile exit	Vegetation	39.5	175	538*	5.95**	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 *minimum amount reported due to concentration exceeded standard curve range. **minimum amount reported due to low recovery around 47% achieved during analysis.							
LOQ (ng/swab)	Swab	1	1	0.2	0.2	Not tested	
LOQ (ppb)	Vegetation	0.7	3	3	0.7	0.3	
LOQ (ppb)	Soil	0.3	0.3	0.3	0.3	0.3	
Signature			Date	02/08/18			

9. I researched the label for Headline Amp fungicide. The label indicated the product was toxic to fish and aquatic life. The label also indicated to avoid applications with rainfall in the forecast, as the products can runoff of the target field into waterways. The label for Headline Amp states *“Do not spray when conditions favor drift beyond area intended for application” “Do not apply under circumstances where possible drift to endangered species”*.
10. The following is a diagram of the area, including both target fields in relationship to the creek and the sample collection locations.



11. The OISC lab report indicated the active ingredients in Headline Amp fungicide was detected in the swab samples collected from the tile exit. It was also detected in the vegetation samples from the creek bank and the silt and vegetation samples collected west of the drain tile. The above diagram shows the drain tile in relationship to the target field. It also shows where I located living fish east of the drain tile, but no living fish to the west of the drain tile. The report and weather data would conclude pesticides from the aerial pesticide applications went off target into the creek.

Robert D. Brewer

Robert D. Brewer
Investigator

Date: February 13, 2018

Disposition: William Powell was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to follow label directions regarding drift. Consideration was given to the fact this was his first violation of similar nature.

William Powell was cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 355 IAC 4-2-2, for applying pesticides by aerial application without being certified. A civil penalty in the amount of \$250.00 was assessed for this violation.

A handwritten signature in black ink, appearing to read "George N. Saxton". The signature is fluid and cursive, with a large initial "G" and "S".

George N. Saxton
Compliance Officer

Draft Date: May 23, 2018

Final Date: July 9, 2018

CASE SUMMARY

Case #2017/1222

Complainant: Brian Addington
12218 W. CR600 S.
Dunkirk, IN 47336
765-744-2701

Respondent: Dennis Rodgers
2952 S. CR1100 W.
Dunkirk, IN 47336
765-768-6733

Private Applicator

1. On August 23, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans. He stated he learned that Dennis Rodgers applied the dicamba on June 22 and July 4.
2. On August 31, 2017, I spoke with Brian Addington who indicated he had several non dicamba-tolerant (DT) Liberty Link soybean fields which he suspected were affected by exposure to dicamba. He stated he originally felt the applicator or manufacturer would handle the issue, but ultimately decided to call the OISC for documentation. The adjacent fields, farmed by Dennis Rodgers, had been sprayed with dicamba-containing tank mixes.
3. On September 5, 2017, I met Mr. Addington and inspected his fields, all of which had been sprayed with Liberty in July, before deciding to investigate three (see also Case #s 2017/1158 & 2017/1159). The field for this case was 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 Addington soybean field. The Addington field was directly across CR500S from the Rodgers target field which was divided diagonally by RR tracks.
 - b) Observed and photographed mostly uniform cupping and puckering of leaves on older leaves on non-DT soybeans in the southern portion of the Addington field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the target field showed no symptoms.
 - c) Collected soybean plants which exhibited symptoms from the Addington field for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue.
 - d) Collected plant samples from non-DT soybeans exhibiting symptoms approximately 20 feet into the Addington field, north of CR500S. Collected soil samples from approximately 40 feet into the two sides of the target field, south of CR500S. Those samples were submitted to the OISC Residue lab for analysis. It should be noted that soil samples were collected from the target field instead of vegetation samples because of the time elapsed between the suspected application date and the sample collection date. Feedback from the OISC Residue Lab indicated analytes persisted longer in soil.



Fig.1 Aerial photo of fields

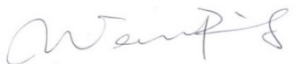


Fig.2 Cupped soybeans in Addington field


5. On September 5, 2017, I contacted Dennis Rodgers who confirmed he sprayed several fields in the area, some with Engenia and some with Xtendimax. He reported that he sprayed the split field south of CR500S with Buccaneer Plus (glyphosate) and Engenia (dicamba) on two different days. Mr. Rodgers later returned a completed Pesticide Investigation Inquiry which indicated the following:
 - a. Application date & time: West of RR June 28, 9-11am; East of RR July 4, 5:30pm-8pm
 - b. Target field: Ford North (soybeans), south of Addington soybeans, across CR500S
 - c. Pesticides applied: Engenia (EPA Reg. #7969-345)
Buccaneer Plus (EPA Reg. #55467-9)
 - d. Application rate of Engenia: 12.8 oz. per acre
 - e. Adjuvants: Capsule
 - f. Nozzles: TT 1100
 - g. Winds: June 28, 9-12mph from SW (toward non-DT beans); July 4, 7mph from NNE
 - h. Applicator: Dennis Rodgers
 - i. Buffer Zone: 120 feet, east end of field
 - j. Ground speed: 13mph
 - k. Checked registrant's website before application: yes
 - l. Checked Drift Watch before application: no (consulted with neighbors)
 - m. Surveyed site before application: yes
6. I checked recorded wind data at www.wunderground.com for the closest official weather station to the application site for June 28, 2017. Winds at the Delaware County Airport, approximately 13 miles southwest of the field, were recorded as follows:
 - 9:53am from south at 11.5mph (blowing toward Addington soybeans)
 - 10:53am from south-southwest at 12.7mph

Wind data at the airport confirmed winds were from the east-northeast, blowing away from the Addington soybeans, during the time of the application east of the RR on July 4, 2017.

7. The PPDL report stated, *"Cupping/puckering of older leaves, as well as discolored leaf tips and parallel venation are indicative of injury that can be caused by exposure to dicamba."*
8. The OISC Residue Lab analyzed the plant and soil samples collected from the fields for glyphosate and its breakdown product, AMPA, as well as dicamba and its breakdown products, DCSA and 5-OH dicamba, and reported the following:

Case #	2017/1222	Investigator				Andy Roth	
Sample #	Sample Description	Amount of Analyte (ppb)					
		Matrix	Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2017-47-4143	Non Target beans- Addington	Vegetation	BDL	BDL	BDL	20.8	BDL
2017-47-4144	Target Soil- West field	Soil	7.08	57.1	BDL	125	361
2017-47-4145	Target Soil- East field	Soil	3.43	107	BDL	159	581
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	1	2	2	5	50	
LOQ (ppb)	Vegetation	2	1	20	5	125	
Signature				Date	12/19/2017		

9. No dicamba analytes were detected in the soybeans collected from the Addington field, likely because they metabolized between the dates of application and the date of sample collection. Glyphosate, which was reportedly applied to the target fields, was detected in the Addington beans. Dicamba, DCSA, glyphosate and AMPA were detected in the soil samples collected from both sections of the target field. The evidence at the site, the lab reports and the wind data suggest dicamba from the west target field application moved off-target to the Addington non-DT soybeans. 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, the wind data supports that Engenia was applied when winds were blowing toward the sensitive non-DT soybeans.
10. The Engenia label states, **“DO NOT apply when wind is blowing in the direction of neighboring specialty crops.”** It further states, *“Wind Speed > 10 mph DO NOT apply Engenia when wind is blowing toward neighboring sensitive crops.” “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.”* The Buccaneer Plus label reads, **“AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT FOR INDIVIDUAL ROUNDUP READY CROPS), DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.”**


 Andrew R. Roth
 Investigator

Date: March 23, 2018

Disposition: Dennis Rodgers 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.

Dennis Rodgers 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 both the Engenia and Buccaneer Plus labels. A civil penalty in the amount of \$100.00 was assessed for this violation.

A handwritten signature in black ink, appearing to read "George N. Saxton", written in a cursive style.

George N. Saxton
Compliance Officer

Draft Date: April 19, 2018
Final Date: June 21, 2018

CASE SUMMARY

Case #2017/1249

Complainant: Andy Godwin
6232 Tama Road
Mendon, OH 45862
567-644-6002

Respondent: Jeff Knittle
3749 E. CR300 N.
Portland, IN 47371
765-726-3465

Not Licensed

1. On September 11, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans. County Extension Agent, Larry Temple, advised complainant to contact OISC regarding suspected dicamba exposure symptoms.
2. On September 12, 2017, I spoke with Andy Godwin who reported he noticed cupped leaves on his non dicamba-tolerant (DT) Roundup Ready soybeans in late-July. Upon learning dicamba exposure was a possible cause, he called Jay County Extension and Mr. Temple looked at the beans. The neighboring field, across the road to the west, was being farmed by Jeff Knittle and was suspected to have been sprayed with a dicamba-containing tank mix.
3. On September 13, 2017, I met Mr. Godwin at his field which occupied the northeast corner of CR500N and CR450E in Jay County. The field, which had weed pressure, was reportedly sprayed with Roundup (glyphosate) and 2,4-D pre-plant, Roundup and Classic (chlorimuron) in late-June and Tomahawk 5 (glyphosate) and Cobra (lactofen) on August 16, 2017.
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 Godwin soybean field. The Godwin field was across CR450E from the target field. A residential property dissected the target field (Fig.1).
 - b) Observed and photographed mostly uniform cupping and puckering of leaves on non-DT soybeans in the western portion of the Godwin field. Symptoms appeared on older leaves (low on the plants) but also on newer leaves across the top of the canopy. 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 soybean plants which exhibited symptoms from the Godwin field for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue.
 - d) Collected plant samples from soybeans exhibiting symptoms approx. 40 feet into the south end of the Godwin field, east of CR450E. Collected plant samples from soybeans approx. 40 feet into the south end of the target field, west of CR450E. Soil samples were

also collected from the same locations as the soybeans due to the amount of time elapsed between the suspected date of application to the target field and the date of sample collection. Feedback from the OISC Residue Lab indicated analytes persisted longer in the soil. The samples were submitted to the OISC Residue Lab for analysis.



Fig.1 Aerial photo of fields



Fig.2 South end of fields; Godwin field on left



Fig.3 Cupping across canopy of Godwin field



Fig.4 Cupped older/lower leaves in Godwin field

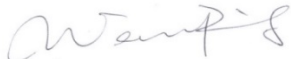
5. On September 12, 2017, I spoke with Jeff Knittle who confirmed the target field was sprayed in early-July with Roundup and Xtendimax. He indicated he noticed cupped leaves in the Godwin field in July but the soybeans recovered prior to the recent onset of symptoms across the top. Mr. Knittle later returned a completed Pesticide Investigation Inquiry which indicated the following:

- a) Application date & time: July 9, 2017; from approx. 9am-10am
- b) Target field: soybean field east of Knittle home, west of Smith soybean field
- c) Pesticides: Roundup PowerMax (glyphosate) EPA Reg. #524-549
Xtendimax (dicamba) EPA Reg. #524-617
- d) Application rate of Xtendimax: 22 oz. per acre
- e) Adjuvants: Cornbelt Vaporgard and DRA
- f) Nozzles: TTI11004VP
- g) Ground speed: 7mph
- h) Winds: 3-5mph DTN Weather (no wind direction given)
- i) Applicator: Jeff Knittle
- j) Buffer zone: yes, 50' – 75' +
- k) Checked registrant's web site before application: yes
- l) Checked Driftwatch/Fieldwatch before application: no
- m) Surveyed application site before application: yes

6. I checked recorded wind data at www.wunderground.com for the closest official weather stations to the application site for July 9, 2017, and found the following:

Delaware County Airport (32 miles WSW)	9:53am 4.6mph from the west-southwest
Fort Wayne International (35 miles NNW)	9:54am 6.9mph from the west-southwest
Marion Municipal Airport (40 miles W)	9:16am 3.5mph from the west-southwest
	9:36am Calm
Lima-Allen County Airport (47 miles ENE)	9:53am 8.1mph from the west-southwest

7. The PPDL report stated, “*Cupping/puckering and discolored leaf tip on older leaves are indicative of injury from dicamba. Necrotic spots on newer leaves and stem are indicative of injury from lactofen.*”
8. The OISC Residue Lab analyzed the plant and soil samples for dicamba and its breakdown products, DCSA and 5-OH dicamba, as well as glyphosate and its breakdown product, AMPA, and reported the following:


Case #	2017/1249				Investigator	Andy Roth		
Sample #	Sample Description	Sample Matrix	Amount of Analyte (ppb)					
			2,4-D	Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2017-47-4156	Non-target beans-Godwin	Vegetation	BQL	BDL	BDL	BDL	13120	566
2017-47-4157	Non- target soil	Soil	Did not test	BDL	BDL	BDL	4593	2555
2017-47-4158	Target beans	Vegetation	Did not test	26.2	*2268	BDL	2163	227
2017-47-4159	Target soil	Soil	Did not test	*593	*678	BQL	2114	2420
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								
* Concentration exceeded calibration curve and minimum amount reported								
LOQ (ppb)	Soil		Did not test	1	2	2	5	50
LOQ (ppb)	Vegetation		2	2	0.4	2	5	125
Signature					Date	12/21/2017		

9. Although dicamba exposure symptoms were visible on soybean plants in the Godwin field, no dicamba analytes were detected in the soybeans collected, likely because they were

metabolized between the date of application and the date of sample collection. Based on the symptoms observed on new growth across the canopy of the Godwin field, those plants were also analyzed for 2,4-D; it was detected in the plants, but was below quantification limits. Dicamba and its breakdown product, DCSA, was detected in the plant sample collected from the target field; all three dicamba analytes were detected in the target field soil. The evidence at the site, the PPDL report and the wind data suggest dicamba from the target field application moved off-target to the Godwin non-DT soybeans. 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, the wind data from the airports supports that Xtendimax was applied to the target field when winds were blowing from a westerly direction, toward the sensitive non-DT soybeans.

10. The Xtendimax label reads, **“DO NOT APPLY this product when the wind is blowing toward adjacent commercially grown dicamba sensitive crops, including but not limited to, commercially grown tomatoes and other fruiting vegetables (EPA crop group 8), cucurbits (EPA crop group 9), and grapes.”** It further states, “Before making an application, the applicator must survey the application site for neighboring non-target sensitive crops. **The applicator must also consult sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site.”**


11. I contacted Mr. Godwin after the on-site investigation in an effort to determine what herbicides were in the sprayer prior to the application on August 16, 2017. He reported that the tank contained Roundup and Classic and that the sprayer was cleaned out after each application. Based on the timing of those secondary symptoms, dicamba is not suspected to have caused the cupping across the top of the soybeans.


Andrew R. Roth
Investigator

Date: March 29, 2018

Disposition: Jeff Knittle 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.

Jeff Knittle 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: April 19, 2018
Final Date: June 21, 2018

CASE SUMMARY

Case #2017/1260

Complainant: Austin Witt
5863 W CR 1200 S
Jasonville, Indiana 47438
812-699-0783

Respondent: Thomas Orman
Thad Shidler
Crop Production Services (CPS)
1390 West State Road 246
Clay City, Indiana 47841
812-939-2124

Registered Technician
Certified Applicator

1. On September 18, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural pesticide drift to his blackberries. He stated that about a month ago his blackberries on the south side of his field started to look bad. He stated he did not know anything about 'dicamba' until he spoke with an expert in Minnesota. He then learned CPS made an application of dicamba to the field just south of his berries.
2. On September 19, 2017, I spoke with Mr. Witt. He stated on the evening of August 19, 2017 he had walked his blackberry field and found some ill-looking new growth on the south end of his field. The damage appeared to be worse toward the west side of the field. He stated he did not know what had caused the symptoms, so he send a photo of the symptoms to his fertilizer representative with AgroK in Minneapolis, MN. He stated the rep immediately said it was textbook dicamba damage, although he did not think it looked severe at that point in time. Mr. Witt stated a week or so later, he learned that Crop Production Services had previously applied dicamba to the soybean field on the south side of the fencerow that borders his blackberry field to the south. He stated he called CPS manager Mr. Thad Shidler who agreed to meet with him in the field later that day. After looking at the plants, Mr. Shidler agreed it looked like dicamba damage. He stated Mr. Shidler advised him CPS had applied dicamba a couple of weeks prior. Mr. Witt stated Mr. Shidler thought the damage was mild and they agreed that Mr. Witt would keep an eye on it and they would talk again in the spring after he saw how much additional winter die back it caused. Mr. Witt stated the next time he walked the field was September 12, 2017. He stated he walked north to south and noticed small amounts of apparent dicamba damage even on the northern part of the field. He stated as he walked south, it appeared to get slightly more frequent, but still spotty until reaching the southern part of the field where the damage was very heavy. He stated the damage was much more severe than he observed in August, with the lateral ends turning black and dead with many mature leaves curling downward. He stated he call Mr. Shidler again and Mr. Shidler only wanted to visit with the Monsanto rep. Mr. Witt stated at that point, he decided to contact the Office of Indiana State Chemist for help. I obtained a written statement from Mr. Witt, which is in this case file.

3. I asked Mr. Witt if he had applied any pesticides to his property. He stated he had a private applicators license and had applied the following pesticides over the course of 2017. Sulforix, Rally 40WSP, Captan 80 WDG, Switch, Mustang Maxx, Malathion 57EC, Delegate WG and Entrust EC. None of the pesticides applied by Mr. Witt, contained the active ingredient dicamba. I also asked Mr. Witt if there were any other fields in the area which may have had dicamba applied to them which may have affected his field. He stated he had checked around and there were no other dicamba applications in the area of his property.
4. I then made contact with Mr. Thad Shidler. He advised me Mr. Thomas Orman, Registered Technician (RT) had made a pesticide application to the soybean field located directly south of the Witt property on June 5, 2017 between the hours of 2:30 pm and 3:30 pm and again on July 26, 2017 between the hours of 11:00 am and 12:00 noon. He stated he is the certified supervisor over Mr. Orman. He stated there is a tree line separating the Witt field and the target soybean field. He stated he had spoken with Mr. Witt and was aware of the complaint. Mr. Shidler stated CPS had applied Xtendimax herbicide EPA Reg. #524-617 with the active ingredient dicamba and Makaze herbicide EPA Reg. #34704-890 with the active ingredient glyphosate to the target field on both applications. Mr. Shidler provided me with the application records for both of the pesticide applications. The records are in this case file. I advised Mr. Shidler I would be sending a Pesticide Investigation Inquiry (PII) for Mr. Orman to complete. Mr. Orman received the PII, completed it and returned it to OISC on October 17, 2017. The PII confirmed the information given to me by Mr. Shidler. The PII is in this case file. The PII had the following information:
 - Application date and time: June 5, 2017 between 2:30 pm and 3:30 pm and July 26, 2017 between 11:00 am and 12:00 noon.
 - Target field: Soybean field located directly south of complainant's field
 - Application rate of Xtendimax: 22 oz. per acre
 - Adjuvants: Choice Trio
 - Nozzles: AITT 110-05, 15 inch spacing
 - Winds: June 5, 2017 W @ 7 mph, temperature 85 degree F
 - Winds: July 26, 2017 S @ 5 mph, temperature 80 degree F
 - Applicator: Thomas Orman
 - June 5, 2017 application: Left a 110 foot buffer: yes
 - July 26, 2017 application: Left a 110 foot buffer: yes
 - Ground speed: 12-13 mph
 - Boom height: 6 inches above soybean canopy
 - Checked Registrants website prior to application: yes
 - Checked Field Watch/Drift Watch prior to application: no
 - Surveyed site prior to application: yes
5. On September 21, 2017, I arrived at Mr. Witt's blackberry farm. I walked from the south to the north through the blackberries and observed some curling and yellowing of leaves on the blackberry plants. I then observed the target soybean field, located directly to the south through a tree line and fencerow. I took photographs of the area, showing the location of the target field to the blackberry field and of the symptoms to the blackberry plants. I also observed curling of leaves on the trees along the fence line between the two fields. I took photographs of those symptoms as well. I collected soil and vegetation samples from the target field, both deep into the field and in the buffer zone area. I also collected vegetation samples from the trees along Mr. Witt's side of the fence row/property line and from the blackberry plants. I collected swab and vegetation samples from the blackberry plants at 75 feet, 100 feet and 150 feet from the target field. All of the samples


were labeled and submitted to the OISC residue lab. I also collected a tree limb sample and blackberry plant sample and submitted them to the Purdue Plant and Pest Diagnostics Lab (PPDL). The following photographs show the location of the fields and the symptoms observed.



6. On September 26, 2017, I received a report from PPDL. The report indicated “*Leaf cupping/curling on all samples could be indicative of injury from a growth regulator herbicide like dicamba*”. A copy of the PPDL report is in this case file.
7. I researched the Weather Underground website for the weather conditions at the nearest reporting stations on the date and time of the July 26, 2017 pesticide application. The results are as follows.
 - Sullivan, Indiana (approximately 15 miles SW) at 11:01 am winds W @ 2.7 mph temperature 86 degree F. At 12:02 pm winds W @ 2.2 mph temperature 88.9 degree F.

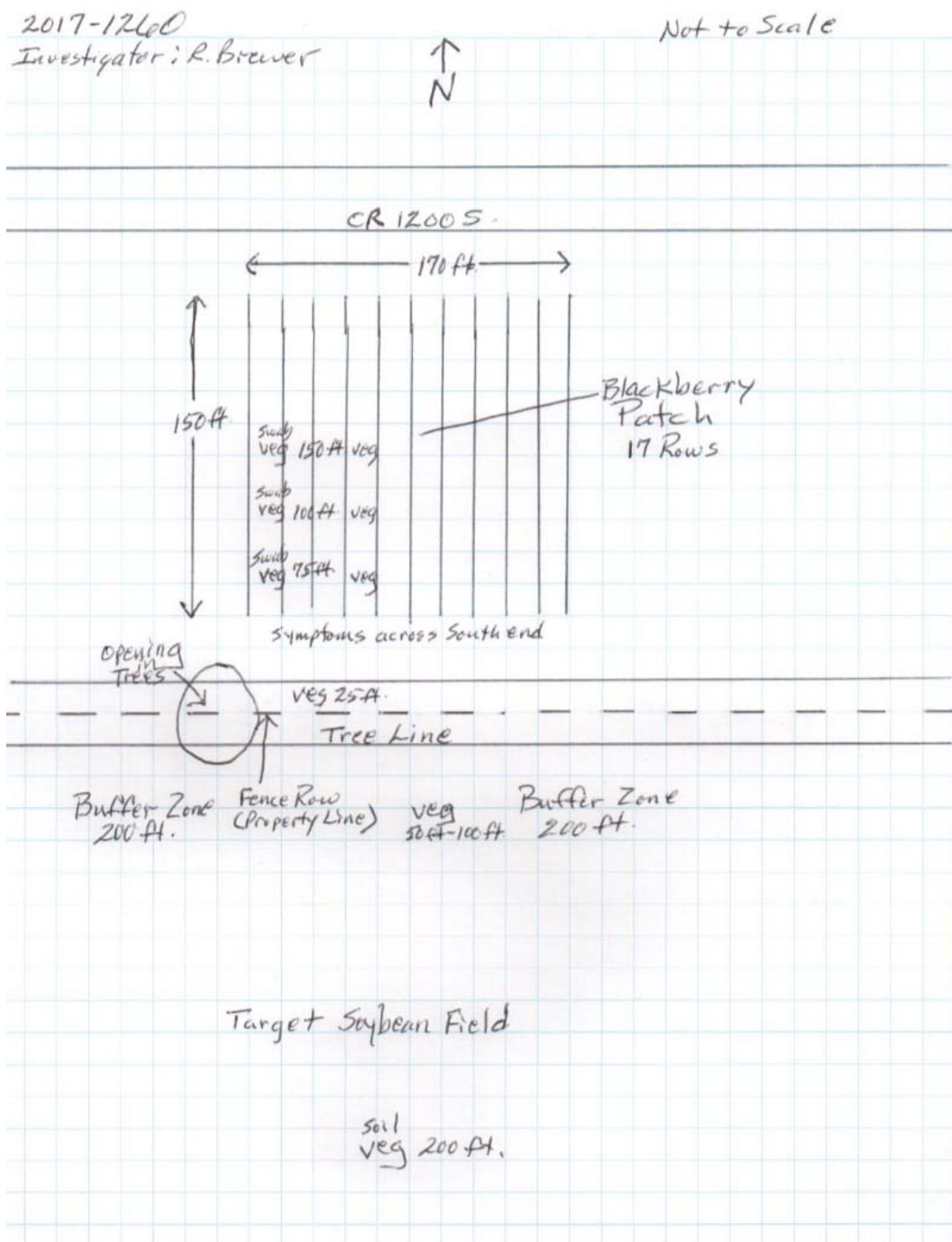
- Markle, Linton, Indiana (approximately 10 miles S) at 11:02 am winds SSE @ 3.2 mph temperature 85.3 degree F. At 12:00 noon winds ESE @ 6.2 mph temperature 88.2 degree F.
- Riley, Terre Haute, Indiana (approximately 25 miles N) winds ESE @ 5 mph temperature 78.6 degree F. At 12:02 pm winds E @ 5.8 mph temperature 83.4 degree F.

8. On December 1, 2017, I received a report from the OISC residue lab. The report indicated the active ingredients dicamba and glyphosate were detected in the vegetation sample collected from the trees on the complainant's property side of the fencerow, 25 feet from the target field. The following is a copy of the OISC residue lab report.

Case #	2017/1260			Investigator	B. Brewer		
Sample #	Sample Description	Amount of Analyte (ppb or ng/swab)					
		Matrix	Dicamba	DCSA	5-OH Dicamba	Glyphosate	AMPA
2017-33-5139	Trip blank swab	Swab	Not tested	Not tested	Not tested	BDL	BDL
2017-33-5140	Control swab	Swab	Not tested	Not tested	Not tested	BDL	BDL
2017-33-5141	Swab 75 ft. from target	Swab	Not tested	Not tested	Not tested	BDL	BDL
2017-33-5142	Swab 100 ft. from target	Swab	Not tested	Not tested	Not tested	BDL	BDL
2017-33-5143	Swab 150 ft. from target	Swab	Not tested	Not tested	Not tested	BDL	BDL
2017-33-5144	Soil target 200 ft.	Soil	Not tested	Not tested	Not tested	Not tested	Not tested
2017-33-5145	Vegetation target	Vegetation	BDL	*683	BDL	1642	451
2017-33-5146	Vegetation buffer zone 50 ft-110 ft.	Vegetation	BDL	BQL	BDL	3246	815
2017-33-5147	Vegetation complainant fence line- 25 ft. from target	Vegetation	1.59	BQL	BDL	62.1	BDL
2017-33-5148	Vegetation complainant Blackberry patch -75 ft. from target	Vegetation	BDL	BDL	BDL	BDL	BDL
2017-33-5149	Vegetation complainant Blackberry patch -100 ft. from target	Vegetation	BDL	BDL	BDL	BDL	BDL
2017-33-5150	Vegetation complainant Blackberry patch -150 ft. from target	Vegetation	BDL	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)	Vegetation		4	0.4	4	5-10	50-125
LOQ (ng/swab)	Swab		Not tested	Not tested	Not tested	10	250
Signature				Date	12/01/2017		

9. I researched the label for Xtendimax herbicide. The label stated, "Do not apply when wind is blowing in the direction of neighboring sensitive crops". "The applicator must consult sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site".

10. The following is a diagram of the area. The diagram indicated the location of the fields as well as the sample collection locations.



11. The OISC residue lab report indicated the active ingredients in the pesticides applied to the target field by Mr. Orman were detected in the samples submitted from the complainant's property. The

Weather Underground weather report along with the applicators report indicated the winds on July 26, 2017 at the time of the pesticide application were blowing towards the complainant's blackberry field/ property. After reviewing the two pesticide applications, it was determined the pesticide application made on June 5, 2017, had no bearing on the symptoms to the Mr. Witt's property as the winds were not blowing towards his property. The previously mentioned findings, indicated pesticide from the pesticide application to the target field made by Mr. Orman on July 26, 2017 did move off target and onto Mr. Witt's property. Mr. Orman was in violation of applying Xtendimax herbicide when the winds were blowing towards an adjacent sensitive crop and for not checking the Field Watch/ Drift Watch website prior to making the pesticide application.



Robert D. Brewer
Investigator

Date: February 8, 2018

Disposition: Thomas Orman, Thad Shidler and Crop Production Services (CPS) were 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.

Thomas Orman, Thad Shidler and Crop Production Services (CPS) 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 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: May 1, 2018

Final Date: June 5, 2018

CASE SUMMARY

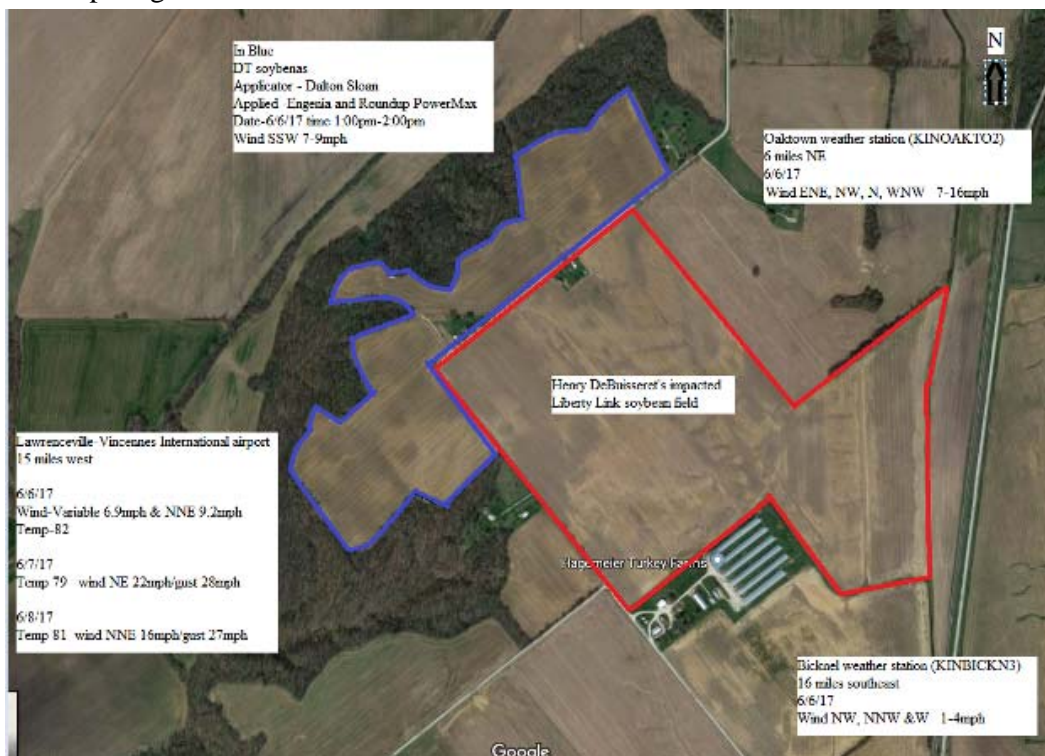
Case #2017/1310

Complainant: Henry DeBuisseret
2181 S Hart Street Road
Vincennes, Indiana 47591
812-881-7275

Respondent: Dalton Sloan
Bill Williams
11547 E. Lower Freelandville Road
Oaktown, Indiana 47561
812-890-0455

Unlicensed Applicator
Private Applicator/Supervisor

1. On February 27, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba drift to his beans. He stated he tried to work it out with the other farmer but that is no longer an option. He stated he learned that he lost approximately 15 bushel to the acre in 39 acres. It was explained to him no residue samples could be taken but OISC could verify that the design standards on the label(s) were followed.
2. On February 27, 2018, I spoke with Mr. DeBuisseret. Mr. DeBuisseret stated he planted his Liberty Link soybeans on April 4, 2017. Mr. DeBuisseret stated he applied Fusilade Herbicide (EPA Reg. #100-1070, active ingredient fluazifop-P-butyl) on May 30, 2017. On June 25, 2017, Mr. DeBuisseret stated he noticed his soybeans had cupped leaves.
3. No investigative samples were taken because the complaint was made after the soybeans had been harvested. However, see map diagram of site.



4. On March 27, 2018, I received Dalton Sloan's completed PII. The following are answers to questions from the PII:
- A. Application dates & times: June 6, 2017 (1:00pm – 2:00pm)
 - B. Target field: Soybeans
 - C. Application rate of Engenia: 12.8 oz. per acre (Roundup PowerMax was also applied in tank mix)
 - D. Adjuvants: Interlock
 - E. Nozzles: TTI04
 - F. Winds: South, southwest 7-9 MPH based on Mr. Sloan's response on PII by checking box labeled "weather station" and written statement "wind power + weather center"
 - G. Applicator: Dalton Sloan
 - H. Buffer Zone: No
 - I. Ground speed: 10mph
 - J. Boom height: 42 inches
 - K. Checked Registrants website before application: Not answered
 - L. Checked Field Watch before application: yes
 - M. Surveyed site before application: Yes

5. Weather data from Weather Underground, www.wunderground.com, indicated by triangulating three (3) weather stations in the area indicated the following:

Wind data from the station located at the Lawrenceville-Vincennes International airport, approximately 15 miles west of the site indicated the wind was variable at 6.9mph and out of the north, northeast at 9.2 mph between 1:00pm and 2:00pm.

Wind data from the station located at Bicknell, Indiana (KINBICKN3), approximately 6 miles northeast of the site indicated the wind was out of the northwest, north northwest, and west at 1-4mph between 1:00pm and 2:00pm.

Wind data from the station located at Oaktown, Indiana (KINOAKTO2), approximately 16 miles southeast of the site indicated the wind was out of the northwest, north northwest, north and northeast at 7-6mph between 1:00pm and 2:00pm.

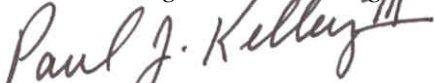
Wind data posted by Weather Underground was different than listed on the PII by Mr. Sloan. Weather Underground data indicated the wind was blowing toward Mr. DeBuisseret

6. Furthermore, based on Mr. Sloan's response on the PII, Mr. Sloan did not go to the registrant's website.

7. Label language for Engenia states in part:

"DO NOT apply when wind is blowing in the direction of neighboring specialty crops".

"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..."



Paul J. Kelley
Investigator

Date: March 30, 2018

Disposition: Dalton Sloan 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 before application.

Dalton Sloan 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 sensitive specialty crop. A civil penalty in the amount of \$100.00 was assessed for this violation.



George N. Saxton
Compliance Officer

Draft Date: April 19, 2018
Final Date: June 20, 2018

CASE SUMMARY

Case #2017/1311

Complainant: Brad Fiechter
3670 E. CR450 S.
Bluffton, IN 46714
260-273-2426

Respondent: Gary Fisher
Helena Chemical
325 E. Logan
Markle, IN 46770
260-758-2128

Certified Applicator
Licensed Business

1. On August 10, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report suspected dicamba agricultural drift to his soybeans.
2. On August 14, 2017, I spoke with Brad Fiechter who reported he noticed cupped leaves on non dicamba-tolerant (DT) soybeans in his field about a week prior. He indicated two fields across the road to the west of his field were sprayed with dicamba-containing tank mixes.
3. On August 15, 2017, I met Mr. Fiechter and followed him to his field, which occupied the southeast corner of CR700S and CR100E in Wells County. He indicated the field on the southwest corner of the intersection was sprayed by Helena Chemical and the field abutting it to the south was being farmed by Pfister Farms (Case #2017/1191). Mr. Fiechter had reportedly spoken to both parties about the symptoms observed on his beans. He stated his Liberty Link beans were sprayed June 10, 2017, with Liberty (glufosinate).
4. During my on-site investigation, I did the following:
 - a) Identified two potential sources of dicamba adjacent to the Fiechter soybean field. The two target fields were across CR100E, a gravel road, to the west of the Fiechter soybeans (Fig.1). There were no fence lines or other biological barriers separating the crops.
 - b) Observed and photographed widespread, mostly uniform cupping and puckering of leaves (no distinct pattern) on soybean plants across the Fiechter field. These symptoms are commonly associated with exposure to a growth-regulator type herbicide such as dicamba. Soybeans in the two target fields exhibited no symptoms.
 - c) Collected samples of affected soybean plants from the Fiechter field for assessment by the Plant & Pest Diagnostic Lab (PPDL) at Purdue.
 - d) Collected plant samples from soybeans exhibiting symptoms approximately 40 feet into the west side of the Fiechter field, across CR100E from the target fields. Collected soil and soybean samples from approximately 40 feet into the north target field. Those two samples were submitted to the OISC Residue Lab for analysis. *Because on-site investigations were conducted at two target fields, and samples were submitted at the same time, the lab results for both fields were reported on one report (see table below).



Fig.1 Aerial photo of fields



Fig.2 Fiechter soybeans, north end of field



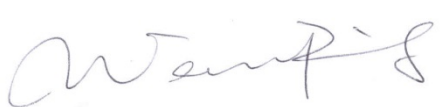
Fig.3 Cupped leaves across top of Fiechter beans



Fig.4 Cupped/puckered leaves on non-DT beans

5. On August 15, 2017, I contacted Bill Bradford, manager at Helena Chemical, who confirmed a Helena applicator sprayed the north target field, which was being farmed by Chad Roush, with Xtendimax and Roundup PowerMax in late-June. He later returned a completed Pesticide Investigation Inquiry (PII) for the application which indicated the following:
 - a) Application date & time: June 27, 2017, from 2:12pm-3:26pm
 - b) Target field: Martin farm (soybeans), west of Fiechter soybeans
 - c) Pesticides: Xtendimax (dicamba) EPA Reg. #524-617
Roundup PowerMax (glyphosate) EPA Reg. #524-549
 - d) Application rate of Xtendimax: 22 oz. per acre
 - e) Adjuvants: Clasp
 - f) Nozzles: Wilger DR110-10
 - g) Ground speed: 10-12mph
 - h) Winds: 2.5mph from 205.80° (south-southwest) blowing towards the complainant;
 - i) Applicator: Gary Fisher
 - j) Buffer zone: 120 feet
 - k) Checked registrant's web site before application: yes
 - l) Checked Driftwatch/Fieldwatch before application: no
 - m) Surveyed application site before application: yes
6. I checked recorded wind data at www.wunderground.com for the closest official weather station to the application site for July 12, 2017. The Fort Wayne International Airport, which is 23 miles north of the application site, recorded the following:
 - 2:43pm 8.1mph from south-southwest (toward corner of Fiechter soybeans)
 - 2:54pm 9.2mph from south
 - 3:10pm 9.2 from south-southwest
 - 3:54pm 8.1 from southwest

7. The PPDL report stated, “Cupping/puckering of leaves and discolored leaf tip are indicative of injury from dicamba.” It further stated, “A common fungal foliar disease, Brown Spot, was confirmed on lower leaves.”
8. The OISC Residue Lab analyzed the plant samples for dicamba and its breakdown products, DCSA and 5-OH dicamba, and reported the following (samples described as “South” were collected for Case #2017/1191 and do not pertain to this case):

Case # 2017/1311			Investigator: A. Roth		
Sample #	Sample Description	Sample Matrix	Amount Found (ppb)		
			Dicamba	DCSA	5-OH Dicamba
2017-474135	Non target beans- Fiechter	Vegetation	BDL	BQL	BDL
2017-474136	Target beans- South field	Vegetation	BDL	10.5	BDL
2017-474137	Target soil- South field	Soil	BDL	13.2	BDL
2017-474138	Target beans- North field	Vegetation	BDL	BDL	BDL
2017-474139	Target soil- North field	Soil	1.37	35.5	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 Application=6/27/17 (north field); 7/6/17 (south field) Sampling=8/15/17 Product applied=Xtendimax					
LOQ (ppb)	Soil		1	2	2
LOQ (ppb)	Vegetation		4	0.4	4
Signature			Date	12/01/17	

9. The dicamba breakdown product, DCSA, was detected in soybean plants collected from the Fiechter field but was below quantification limits. No analytes were detected in the soybeans collected from within the reported buffer zone in the north target field, but dicamba and DCSA were detected in the soil. The evidence at the site and the lab reports suggest dicamba applied to one or more of the target fields (north and/or south) moved off-target to the Fiechter soybeans. It is difficult to determine whether dicamba moved off-target due to application into an inversion or volatility at some point after the application, but the lack of a distinct pattern of symptoms does not support that direct particle drift occurred. The wind conditions provided on the PII, and verified at the airport, supports that Xtendimax was applied to the north target field when the wind was blowing toward the sensitive non-DT soybeans.

10. The Xtendimax label states:

- **“DO NOT APPLY this product when the wind is blowing toward adjacent commercially grown dicamba sensitive crops, including but not limited to, commercially grown tomatoes and other fruiting vegetables (EPA crop group 8), cucurbits (EPA crop group 9), and grapes.”**
- **“Before making an application, the applicator must survey the application site for neighboring non-target sensitive crops. The applicator must also consult sensitive crop registries to identify any commercial specialty or certified organic crops that may be located near the application site.”**



Andrew R. Roth
Investigator

Date: March 21, 2018

Disposition: Gary Fisher was warned for violation of section 65(2) of the Indiana Pesticide Use and Application Law for failure to check a sensitive crop registry before application.

Gary Fisher was cited for violation of section 65(2) of the Indiana Pesticide Use and Application Law for 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: April 18, 2018
Final Date: June 21, 2018

CASE SUMMARY

Case #2018/0004

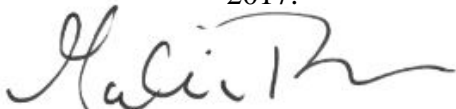
Complainant: Office of Indiana State Chemist (OISC)
175 South University Street
West Lafayette, Indiana 47907-2063
800-893-6637

Respondent: Jim Propst
T & J Landscape Services
8253 Wicker Avenue
St. John, Indiana 46373
219-374-9900

Unlicensed Applicator
Unlicensed Business

NEW ADDRESS PER P.O. SERVICE:
12638 Wicker Avenue
Cedar Lake, Indiana 46303-9589

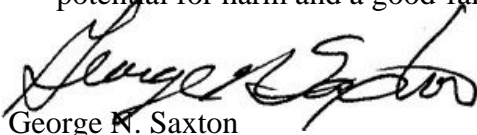
1. On October 4, 2017, I went into T & J Landscape Services to perform a routine business inspection. Prior to entering the business, I verified with the Office of the Indiana State Chemist (OISC) Licensing Division this location or business name did not have an OISC license associated with it. I spoke to Jim Propst the Snow & Lawn Maintenance Manager. Mr. Propst stated that he had an Illinois license but was not aware that he needed to apply for the Indiana license. I issued Mr. Propst an **ACTION ORDER** stating the following, "*Stop all fertilizer applications until business and applicators are licensed with OISC.*" Mr. Propst stated he would send me his application records. I also gave Mr. Propst the contact information for the OISC Licensing Division.
2. On October 24, 2017, I received the application records for T & J Landscape Services. In 2017, T&J Landscape services made 67 unlicensed fertilizer applications:
 - March- 6 days of applications
 - April- 16 days of applications
 - May- 14 days of applications
 - June- 1 day of application
 - July- 6 days of applications
 - August- 12 days of applications
 - September- 11 days of applications
 - October- 1 day of application
3. On October 27, 2017, I contacted the OISC Licensing Division to verify that Mr. Propst had contacted them. I received an email stating they were awaiting the exam grades for Mr. Propst and had already received his application with fees.
4. In this case there appears to be a violation because:
 - T & J Landscape Services made unlicensed fertilizer applications on 67 days in 2017.



Melissa D. Rosch
Investigator

Date: January 22, 2018

Disposition: T & J Landscape Services was cited for sixty-seven (67) counts of violation of section 65(9) of the Indiana Pesticide Use and Application Law for applying pesticides or products regulated under IC 15-16-5 (fertilizer) without having a pesticide business license. A civil penalty in the amount of \$16,750.00 (67 counts x \$250.00 per count) was assessed. However, the civil penalty was reduced to \$1,675.00. Consideration was given to the fact T & J Landscape Services cooperated during the investigation; corrective action was taken; there were no previous violations of similar nature; no potential for harm and a good-faith effort to comply.



George N. Saxton
Compliance Officer

Draft Date: April 12, 2018

Final Date: June 21, 2018

CASE SUMMARY

Case #2018/0134

Complainant: Cynthia Wright
501 N. East Street, Apt. 213
Indianapolis, Indiana 46204
317-690-7234

Respondent: Pest Control Authority, Inc.
Thomas Rabatin
Charlie Jackson
Brian Macklin
P.O. Box 18497
Louisville, Kentucky 40261
502-499-5773

Licensed Business
Certified Applicator
No License
No License

1. On December 7, 2017, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report a suspected miss-application of a pesticide dust for the control of bed bugs. She stated the dust is all over her refrigerator and stove as well.
2. On December 7, 2017, I spoke with Cynthia Wright. Ms. Wright stated her apartment has bedbugs. Ms. Wright stated the property is managed by the Indianapolis Housing Authority (IHA). Ms. Wright stated the IHA had hired the Pest Control Authority to treat her apartment. Ms. Wright stated Pest Control Authority applied a white powder throughout her apartment for the bedbugs. See figures 1-2. Ms. Wright stated she was told to vacuum up any residue white powder, but Ms. Wright stated due to her disability vacuuming is difficult. Ms. Wright was concerned the powder was not applied correctly. Ms. Wright stated the bedbugs were coming under her door from neighboring apartments.



Fig. 1-White powder



Fig. 2-White powder that fell out of chair

3. On December 8, 2017, I spoke with Thomas Rabatin, certified applicator for Pest Control Authority. Mr. Rabatin stated Charles Jackson and Brian Macklin made an application of Cimexa Insecticide Dust (EPA Reg. #73079-12, active ingredient silicon dioxide) to Ms. Wright's apartment. A review of OISC's licensing data indicated Charles Jackson and Brian Macklin did

not hold any credentials with OISC. I informed Mr. Rabatin. Mr. Rabatin was unaware neither employee was licensed. Mr. Rabatin stated he learned through this investigation Mr. Jackson passed the CORE exam, but a license application was not completed. Mr. Rabatin stated Mr. Macklin failed the CORE Exam. Mr. Rabatin stated he would immediately apply for Mr. Jackson's Registered Technician (RT) credential. Mr. Rabatin stated this was the only pesticide application performed by Charles Jackson and Brian Macklin.

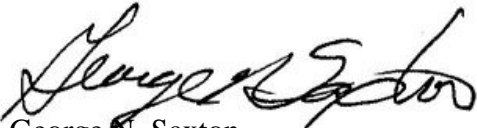
4. On December 11, 2017, I went to Ms. Wright's apartment to investigate. I observed some white powder in her living room under furniture and next to door. I observed dead and live bedbugs on tape under the door. I collected samples of the white powder for analysis.
5. On January 17, 2018, OISC's Microbiology Lab confirmed the white powder contained particles similar to Cimexa Insecticide Dust. The label for Cimexa did not contain language prohibiting the use of Cimexa in Ms. Wright's apartment.
6. A follow up review of OISC's licensing database indicates Charles Jackson is listed as an RT for 2018.



Paul J. Kelley
Investigator

Date: January 18, 2018

Disposition: Thomas Rabatin and Pest Control Authority Inc. were cited for violation of section 65(6) of the Indiana Pesticide Use and Application Law 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: April 12, 2018

Final Date: June 21, 2018

CASE SUMMARY

Case #2018/0143

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: Sterling International Inc.
3808 N. Sullivan Road, Building 16
Spokane, WA 99216
800-666-6766

1. On December 14, 2017, I performed a routine marketplace inspection at Wabash Hardware located at 1351 N Cass St 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 and had a rejected application on September 18, 2017. The product was as follows:
 - a. Decoshield Decorative Mosquito Repellent, a 25(b)¹ Product.
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. However, there was only one product left and I collected it as an evidentiary sample so there would be no more at the store. 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 it came into the system on June 21, 2017 but he was unsure of when the store received it.
4. On December 15, 2017, I delivered the evidentiary sample to the Formulation Lab.

¹ Minimum Risk Pesticide



Fig. 1) Photo of Decoshield Decorative Mosquito Repellent

Garret A. Creason

Garret A. Creason
Investigator

Date: December 21, 2017

Disposition:

- A. On December 22, 2017, the information was forwarded to the Registration Division for a label review. The label review was finalized on January 22, 2018 and revealed the following:
 - a. Only active ingredients are listed. Listing does not include substrate that the essential oils are embedded in/on or any other inert ingredients;
 - b. "BITING INSECTS" is too generic
- B. Sterling International Inc. was cited for one (1) count of 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. Sterling International Inc. was cited for violation of section 57(5) of the Indiana Pesticide Registration Law for distributing a pesticide product that was misbranded. A civil penalty in the amount of \$250.00 was assessed for this violation.

George N. Saxton

George N. Saxton
Compliance Officer

Draft Date: April 12, 2018

Final Date: June 21, 2018

CASE SUMMARY

Case #2018/0157

Complainant: Office of Indiana State Chemist (OISC)
175 S. University Street
West Lafayette, IN 47907
800-892-6637

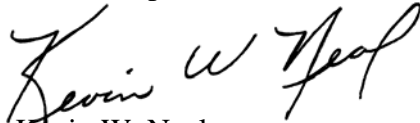
Respondent: Pine Village Service Center (PVSC) Restricted Use Dealer
Mitch Miles (Owner)
Dan Duchemin (Manager)
8314 N. Old 55
Pine Village, IN 47975
765-385-2080

Crossroad Farms
Jeff Haurt Non-Credentialed
4012 W 300 N
Williamsport, IN 47993

1. On February 1, 2018, I was assisting with a follow up for Investigator Rosch on her case #2017/1234 when I became aware of an unlicensed/non-credentialed person, Mr. Haurt, making restricted use pesticide applications for Crossroad Farms.
2. On February 2, 2018, I made a visit to the PVSC and there met with Mr. Duchemin. I explained to him the reason for my visit in that I had reason to believe PVSC had sold restricted use pesticides to a non-credentialed entity Crossroad Farms.
3. I explained to Mr. Duchemin according to OISC records no one associated with Crossroad Farms holds a Private Applicators credential. I also asked him to see and examine PVSC's restricted use pesticide (RUP) sales records for the last two years.
4. At the time of my request, Mr. Duchemin was unable to produce the records. He did say however that the information requested and required for RUP sales does exist within the system for PVSC it however would take a few days to put it all together in one format.
5. On February 16, 2018, I again made a visit to the PVSC and there collected the requested RUP sales records for 2016 and 2017. What I discovered in the records was on twelve (12) separate instances RUP's were sold to Crossroad Farms and they are as follows:

<u>DATE</u>	<u>PESTICIDE</u>	<u>EPA REG #</u>	<u>INVOICE#</u>
3/29/16	CallistoXtra	100-1359	25628
5/27/16	Capture 3rive	279-3467	25963
6/7/16	Atrazine	33270-10	26080
6/8/16	Capture 3rive	279-3467	26097
6/15/16	Atrazine	33270-10	26203
12/13/16	Cinch ATZ	352-624	27050
3/14/17	CallistoXtra	100-1359	27227
3/14/17	Capture 3rive	279-3467	27226
7/20/17	Hero	279-3315	28112
8/9/17	Acuron	100-1466	28110
8/9/17	Paradigm	66222-223	28112
8/11/17	Hero	279-3315	28150

6. Copies of the RUP sales records are included in the case file.



Kevin W. Neal
Investigator

Date: February 20, 2018

Disposition: Pine Village Service Center was cited for twelve (12) counts of section 65(6) of the Indiana Pesticide Use and Application Law, specifically 357 IAC 1-3-2, for distributing a restricted use pesticide to a non-certified user. A civil penalty in the amount of \$3,000.00 (12 counts x \$250.00 per count) was assessed. By rule, the civil penalty assessed for this violation may not be mitigated by the Office of Indiana State Chemist.



George N. Saxton
Compliance Officer

Draft Date: May 17, 2018

Final Date: June 25, 2018

CASE SUMMARY

Case #2018/0176

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: Enviro Protection Industries Company, Inc.
72 Grosset Drive
Kirkwood, NY 13795
1-877-337-2726

1. On February 14, 2018, I performed a routine marketplace inspection at True Value located in the Village Shopping Center in Zionsville, Indiana. 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. Vole Scram Granular Repellent, a 25(B)¹ product.
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 8/16/17.
4. On February 14, 2018, I delivered the evidentiary sample to the Formulation Lab.

¹ Minimum Risk Pesticide



Garret A. Creason

Garret A. Creason
Investigator

Date: February 15, 2018

Disposition:

- A. On February 19, 2018, this information was forwarded to the Registration Section for label review.
- B. Enviro Protection Industries Company, Inc. was cited for two (2) counts (for 2017 and 2018) of 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 \$500.00 (2 counts x \$250.00 per count) was assessed. However, the civil penalty was held in abeyance and not imposed provided Enviro Protection Industries Company, Inc. properly registers the pesticide product within thirty (30) days from receipt of this notice.
- C. Enviro Protection Industries Company, Inc. sent a letter informing us they would not be registering the pesticide product and that the product was being pulled by the distributor. Enviro Protection Industries Company, Inc. paid the \$500.00 civil penalty.

George N. Saxton

George N. Saxton
Compliance Officer

Draft Date: June 29, 2018
Final Date: August 13, 2018

CASE SUMMARY

Case #2018/0199

Complainant: Ron McQuiston
1701 N. Purdum Street
Kokomo, Indiana 46901
765-513-2263

Respondent: Mark Maupin
Cirrus Home Inspection LLC
6793 E. CR-125 S.
Walton, Indiana 46994
574-753-44701

Certified Applicator
Licensed Business

1. On February 22, 2018, the complainant contacted the Compliance Officer of the Office of Indiana State Chemist (OISC) to report his home was inspected for wood destroying organisms prior to closing and the inspector missed “thousands of dollars in damage”.
2. On February 28, 2018, I met with Mr. McQuiston. Mr. McQuiston stated he purchased the residence in July of 2017. Mr. McQuiston stated the seller hired Cirrus Home Inspection to perform a wood destroying insect (WDI) inspection. The NPMA-33 form, filled out by Mark Maupin, indicated no evidence of termites and no evidence of previous termite control treatment. Mr. McQuiston stated because he was applying for an FHA loan, the lender required that a FHA Inspector appraise the residence. Mr. McQuiston stated the FHA Inspector had some concerns regarding some structural elements in the crawlspace along with some damage to ends of several floor joists requiring a structural engineer. The seller hired Mr. Maupin to complete the inspection. Mr. McQuiston was still concerned and hired Acculevel to repair piers and some joists. Acculevel informed Mr. McQuiston he had some pest issues and need to contact a licensed pest professional.
3. On February 28, 2018, I crawled the crawlspace. I observed several joists with termite activity in the northeast corner of the crawlspace. See figure 1-2. In addition, I observed spray foam insulation on band board and sill plate. The damage was not obstructed by the foam spray. Furthermore, I observed drill holes in the front porch slab and in concrete slab around rear of residence. See figures 3-4.



Figure 1-Termite activity in joist



Figure 2- Termite activity



Figure 3-Drill hole in front porch



Figure 4-Drill hole in rear slab

4. On March 1, 2018, I spoke with Mr. Maupin. I informed Mr. Maupin I observed evidence of previous termite treatment from drill holes in the slabs around the residence. I informed Mr. Maupin I observed evidence of termite activity in several joists in the crawlspace. Mr. Maupin stated he missed the drill holes in the slabs and did not see the termite activity in the crawlspace.

Paul J. Kelley III

Paul J. Kelley
Investigator

Date: March 27, 2018

Disposition: Mark Maupin was 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. Consideration was given to the fact this was his second violation of similar nature. See case number 2014/0198.

George N. Saxton

George N. Saxton
Compliance Officer

Draft Date: June 5, 2018
Final Date: July 20, 2018

CASE SUMMARY

Case #2018/0381

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

Respondent	Stavros Lawn Service	Unlicensed
	Derek Blaas	Unlicensed
	Wilmer Jacob	Unlicensed
	2104 Production Drive	
	Indianapolis, Indiana 46241	
	317-423-1383	

1. On April 27, 2018, I observed two men loading spreading equipment back into their pickup truck parked in front of 1930 Mulsanne Drive in Zionsville, Indiana.
2. I made contact and found them to be Mr. Derek Blaas and Mr. Wilmer Jacob. I asked them if they had been making a fertilizer or pesticide application to the lawn. Mr. Blaas stated they had just finished spreading granular fertilizer with weed control in it, to the lawn at 1930 Mulsanne Drive. I asked who had made the application and he stated both men had made the application. I asked him what they had applied. He then showed me several bags of Spring Valley Plus Trimec Weed and Feed EPA Reg. #2217-812-41124 with the active ingredients 2, 4-D, dicamba and MCP-P. I checked the OISC database and found this product was registered for 2018.
3. I then asked Mr. Blaas if he was a licensed applicator or a registered technician. He stated he was neither. I asked if Mr. Jacob was and he advised he was not licensed as well. I observed the name Stavros Lawn Service on the side of the pickup truck. I asked if they worked for Stavros. Mr. Blaas stated they did. I asked who his supervisor was and he stated Mr. Steve Drouzas. I had him contact Mr. Drouzas by telephone. I spoke with Mr. Drouzas and advised him I was with Mr. Blaas and Mr. Jacob and they were applying fertilizer and pesticide without being licensed through the OISC. He stated he was aware they were not licensed. I then asked if Stavros Lawn Service had a pesticide business license through OISC. He stated they did not. I advised him anyone or any business applying fertilizer or pesticide in the State of Indiana for hire, must be licensed through OISC. I advised him I was issuing an ACTION ORDER to both men ordering them to cease all fertilizer and pesticide applications until obtaining proper licensing. I further advised him I would need to meet with him in order to issue an ACTION ORDER to the business for the same. He stated he understood and we set an appointment to meet the next week. I spoke with Ms. Jill Davis of the OISC Licensing Section and she confirmed Stavros Lawn Service did not possess a business license through OISC. The following photographs show the product used and the location of the fertilizer/pesticide application, along with granules in the grass and along the sidewalk left from the application.




4. I then issued both Mr. Blaas and Mr. Jacob an ACTION ORDER, ordering them to cease any and all pesticide and fertilizer applications until obtaining proper licensing through the Office of Indiana State Chemist. Copies of these Orders are in this case file. I asked Mr. Blaas if they had lawn markers or leave behind instructions for the homeowner. He stated they were in a different truck and did not. I asked Mr. Blaas if they had made any other pesticide or fertilizer applications this year. He stated they had made three other applications that day in Indianapolis. The two men then left the area.
5. While taking photographs, I observed a gentleman found to be the homeowner, Mr. Brett Satkamp, in the side yard. I advised him of the reason for me being there and taking photographs. He stated he did hire Stavros Lawn Service to make the fertilizer and

pesticide application to his lawn. He stated he did not realize they were not licensed. He stated they are a very reputable business.

6. On April 30, 2018, I went to Stavros Lawn Service on Production Drive. I met with Ms. Wilma Wheeler in the office. She stated Mr. Drouzas was not in. I advised her of the reason for me being there. I issued an ACTION ORDER to Stavros Lawn Service, ordering to cease any and all pesticide and fertilizer applications and any advertising of weed control or fertilization, until obtaining a pesticide business license through the Office of Indiana State Chemist. A copy of the Order is in this case file. I advised Ms. Wheeler I would need copies of all pesticide and fertilizer applications made by Stavros Lawn Service this year. She stated she would advised her manager, Mrs. Karli Drouzas and have her contact me.
7. I received a telephone call from Mrs. Drouzas. I explained the ACTION ORDER to her and advised her I needed a copy of all fertilizer and pesticide applications made by Stavros this year. She stated she would email the records to me. On May 4, 2018, I received an email from Mrs. Drouzas with all of the application records. She also advised me Stavros does mostly landscaping and mulching. She stated they do not advertise weed control and had decided to not pursue the fertilizer or weed control business and had obtained a written agreement with TruGreen for TruGreen to service all of the pesticide and fertilizer companies. A copy of this agreement along with the application records are in this case file. I observed Stavros flyers and business cards along with the logo on the trucks and there is no mention of fertilizer or weed control.
8. The application records indicated Stavros Lawn Service made for-hire fertilizer only applications on eight days and for-hire fertilizer with pesticide applications on four days, for a total of 12 days. The following is a list of those applications by date.

Date	Type of application
March 16, 2018	Fertilizer
March 19, 2018	Fertilizer with Pesticide
March 20, 2018	Fertilizer with Pesticide
March 22, 2018	Fertilizer
March 30, 2018	Fertilizer
April 5, 2018	Fertilizer
April 6, 2018	Fertilizer
April 11, 2018	Fertilizer with Pesticide
April 12, 2018	Fertilizer
April 18, 2018	Fertilizer with Pesticide
April 19, 2018	Fertilizer
April 27, 2018	Fertilizer


Robert D. Brewer
Investigator

Date: May 7, 2018

Disposition: Stavros Lawn Service was cited for twelve (12) counts of violation of section 65(9) of the Indiana Pesticide Use and Application Law for applying pesticides/fertilizer for hire without having an Indiana pesticide business license. A civil penalty in the amount of \$3,000.00 (12 counts x \$250.00 per count) was assessed. However, the civil penalty was reduced to \$2,250.00. Consideration was given to the fact Stavros Lawn Service cooperated during the investigation.

A handwritten signature in black ink, appearing to read "George N. Saxton", written in a cursive style.

George N. Saxton
Compliance Officer

Draft Date: June 26, 2018
Final Date: August 13, 2018