

On Going Trials and Tribulations of Drift Label Language and it's Enforcement



Beth Carter
Pesticide Investigator
Office of the Indiana State Chemist



Outline

- Drift Rule
- Our procedures
- 3 case studies
- PARTICIPATE
- Conclusion



Indiana Drift Rule

- 357 IAC 1-12-2: A person may not apply a pesticide in a manner that allows it to drift from the target site in sufficient quantity to cause harm to a non-target site.

Does That Rule Include Drifting Snow???





Drift Investigations

- Interview (statements, supporting doc)
- Record observations (patterns, map, other sources)
- Photograph
- Samples (PPDL, residue, formulation)
- Collect information from applicator
- Weather data
- Review labels



Study 1- Chernobyl

- Complainant called to report symptoms of pesticide exposure. The application was made by the coop.
- "It was very windy."
- Coop applied glyphosate, 2,4-D, and flumioxazin and chlorimuron ethyl.
- It is during the Spring.

Study 1- Chernobyl

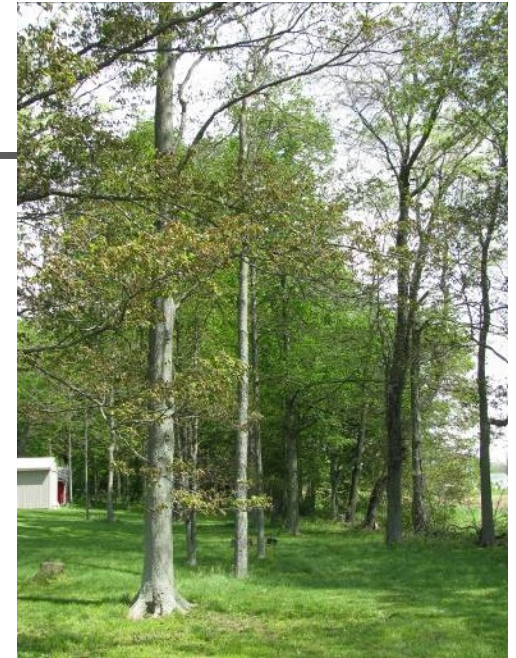
- Farm field is across the road. It is south of complainant's home.

Application



Complainant's
home

Study 1- Chernobyl





Study 1- Chernobyl

- Leaf cupping, curling, twisting, necrotic spots, and leaf drop
- Pattern of drift observed
- 2 vegetation samples collected
- Wind was 11.5 mph from south/southwest at time of application.



Study 1- Chernobyl

- Drift???
- PPDL- symptoms consistent with herbicides applied
- Residue sample- 1100PPB of 2,4-D and 970 PPB of glyphosate
- Label language, 'Avoid contact of herbicide with desirable plants and trees.'
- If only they were all that easy....



Study 2- The Goat Caper

- Complainant called to report that her neighbor made an ag application when it was “windy” and drifted onto her pasture. Her goats then grazed on that pasture and now their milk tastes “off.”
- Farm field is west and south of goat pasture.
- Pasture is approximately 75 feet from farm field.
- There is a row of trees between pasture and field.
- Farmer applied 2,4-D and glyphosate 4 days previous.

Study 2- The Goat Caper



Gate- 75
ft from
ag field

Ag field

Tree Buffer

Barn- 495
feet from
field

Complainant's
home



Study 2- The Goat Caper

- What samples should I collect???
- Swab of pasture fence
- Swab of barn (495 ft from farm field)
- Soil sample from farm field
- Soil sample from pasture
- And....

Study 2- The Goat Caper





Study 2- The Goat Caper

- Milk = Confirmed presence glyphosate
- Swabs = BDL (nothing)
- Soil from farm field = Confirmed presence of glyphosate, ampa, & 2,4-D
- Soil from pasture = Confirmed presence of ampa
- Wind was 19.6 mph with 25.3 mph gusts out of south/ southwest



Study 2- The Goat Caper

- Label Language- “Do not apply this product in a way that will contact workers or other persons or goats, either directly or through drift.”
- Drift Rule!
- A person may not apply a pesticide in a manner that allows it to drift from the target site in sufficient quantity to cause harm to a non-target site.



Study 3- The Boogeyman

- Complainant stated she was mowing the yard when a pesticide application by a neighboring farmer drifted onto her.
- Interview: “very windy” and upon seeing sprayer she went inside and left mower in yard.
- Farm field south of comp home.
- Farmer applying glyphosate



Study 3- The Boogeyman

- Samples collected: shirt, swab mower, swab of windows, swab of front porch items including kids toys
- Wind was blowing 20 mph with gusts up to 28 mph out of the south/southwest



Study 3- The Boogeyman

- Shirt- BDL
- Swab of mower- conf
- Swab of window- conf
- Swab of front porch items- conf



Study 3- The Boogeyman

- Violation?
 - A) Label violation (drift on person)
 - B) No violation
 - C) Drift Rule
 - D) Too hard
 - E) Other



Study 3- The Boogeyman

- A) Label violation (drift on person)- no residue on shirt and based on statement
- B) No violation - have to see
- C) Drift Rule- A person may not apply a pesticide in a manner that allows it to drift from the target site in sufficient quantity to **cause harm** to a non-target site.
- D) Too hard – I already used my “too hard” qualifier for the year 😊.
- E) ***Other- Operated in a careless or negligent manner ***
- The “Boogeyman” was cited for operating in a careless manner



Drift Rule

- When does it fall short????
- Volatility, runoff, overspray, erosion, windblown soil particles
- Need to prove harm



Drift Rule

- Has it purpose when the labels fall short
- Catch all rule
- Not perfect but our best effort at drawing reasonable conclusions.