



**Office of Indiana  
State Chemist**



# Off-Target Mosquito Adulticiding

**IPRB 166<sup>th</sup> Meeting**

August 10, 2021

-Dave Scott-

# Off-target mosquito adulticiding

- Complaints & inquiries to OISC on the rise in recent years
- Primarily private property adulticiding vs. community-wide adulticiding
- Concerns about no labeling to address the issue
- Concerns about insecticide exposure to:
  - Pollinators & other wildlife
  - Pets
  - Humans



# Mosquito Application Complaints & inquiries to OISC on the rise in recent years

- 2017---3
- 2018---3
- 2019---3
- 2020---7
- 2021---5 or 6 so far



# Community-wide mosquito adulticiding

Applications primarily by state, county, or local public agencies

Requires certification & licensing in category 8

Applications primarily when adult mosquitos are most active

Objective: Mitigate disease transmission (public health)

Objective: Mitigate nuisance biters (public service)

Public oversight & accountability is part of government process

Prenotification:  
2008, IPRB issued guidance to cities & towns regarding communicating about community-wide pesticide applications.

# Private property mosquito adulticiding

Applications by for-hire commercial applicators

Requires certification & licensing in cat. 7a or 8 (NOT 3a or 3b)

Many applications on a schedule during daylight business hours, not when mosquitoes most active

Objective: benefit or service for an individual property owner

Applicator is accountable to the contracting property owner only

No guidance regarding prenotification of or communication with non-target neighbors has been crafted by IPRB or OISC

# What do labels say about off-target drift ?

- **PRN 2001-X Draft: *Spray and Dust Drift Label Statements for Pesticide Products***

- This Notice sets forth the EPA guidance for labeling statements for controlling spray drift and dust drift from application sites and for implementing these statements for risk mitigation. The purpose of this new labeling guidance is to provide pesticide registrants, applicators, and other individuals responsible for pesticide applications with improved and more consistent product label statements for controlling pesticide drift in order to be protective of human health and the environment.
- This PR Notice applies to all pesticide products labeled for **use outdoors** that can be applied as sprays or dusts, including applications with ground hydraulic, **airblast**, aerial, chemigation, **handheld**, or **backpack equipment**, except for products stated below. Application sites for affected products include, but are not limited to, agricultural crops, forestry, rights-of-way, recreational areas, **lawns, and home gardens**.

## PRN 2001-X Draft:

### *Spray and Dust Drift Label Statements for Pesticide Products*

- This notice does not to apply to:
  - 1.products labeled solely for indoor use;
  - 2.products labeled for outdoor use which are applied in a form other than a spray or dust, such as a granular formulation;
  - 3.fumigant products, due to their different physical state and behavior (vapor rather than liquid or solid particles); and
  - 4.mosquito adulticide products labeled solely for use in public health programs. These and certain other products will require special consideration for appropriate labeling.
- This PR Notice for labeling improvement was never finalized.

# Community-wide adulticiding product labels

“For use only by federal, state, tribal or local government officials responsible for public health or vector control, or persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency or perform adult mosquito control applications, or by persons under their direct supervision.”



# Private property adulticiding product labels

“For prevention and control of termites, carpenter ants, and other pests in structures.”

“To control adult mosquitoes outdoors on residential, institutional, public, commercial and industrial buildings, and lawns, ornamentals, parks, recreational areas and athletic fields.”

“For use as a spot treatment and perimeter treatment for the control of listed pests in, on, and around residential, institutional, public, commercial, and industrial buildings.”

“For adult mosquitoes...yards or other frequented areas enclosed by landscaping can benefit from banded treatment to reduce invading adult mosquitoes by treatment of perimeter vegetation.”

# Community-wide adulticiding product labels

“Do not apply to or allow drift onto blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.”

# Private property adu<sup>l</sup>ticiding product labels

“Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.”

“Do not apply this product or allow it to drift to blooming plants or weeds if bees are foraging.”

So, foraging bees are protected (sort of), what about neighbors and their pets?

The only protective language I could find in a mosquito section is the following, on one label:

“Do not apply when wind speed exceeds 10 MPH.”

# Private property adulticiding service claims

A trained technician will treat your yard with an effective barrier spray that eliminates biters for 21 days.

Using a backpack sprayer designed for precise application, your technician targets shrubs and plants with a barrier spray that kills mosquitoes on contact and bonds to foliage, where it acts as a mosquito repellent for weeks to come.

Within 30 minutes of spraying, your yard is ready for family and pets to come out and play.

*“Do not allow contact with treated surfaces by people or pets before the spray has dried.”*

# Private property adulticiding service claims

All of the barrier spray chemicals we use are synthetic forms of pyrethrins called pyrethroids. Pyrethrins are insecticides that are derived from a naturally occurring compound called pyrethrum found in the chrysanthemum flower.

Pyrethroids are used in numerous commercial products that consumers use to control insects such as household pest insecticides, pet shampoos and sprays, and even lice shampoos applied directly to the scalp.

The standard barrier spray treatment is effective on other pests such as fleas, ticks and some flies as well which makes it ideal for not only kids but pets as well.

# Private property aduaticiding service claims

We take pollinator protection seriously. Our certified technicians are all trained on our Pollinator Protection Management Program which incorporates three key focus areas:

- deep familiarity with each customer's property
- professional application procedures, and
- the type of products we use.

# Private property adulticiding service claims

Mosquitoes are not particularly mobile and often stay within a few hundred feet of where they originally hatched.


After the application, adult mosquitoes carry the chemicals back to their breeding grounds until breeding sites are completely eliminated.



Other than product label protections for foraging bees, are there any other protections for neighbors under the pesticide law?

When investigating complaints of off-target movement of adulticides, OISC will consider the following in evaluating whether the applicator violated the law:

1. Was the application a community-wide public health/vector control application or was it an application to a private property for private benefit?
2. Were measurable insecticide residues resulting from either direct application or drift detected on samples collected from off-target (off-property) sites considered to be common touch or potential exposure surfaces for pets or humans?



What types of surfaces does OISC consider to be common touch or potential exposure surfaces for pets or humans?

Examples include , but are not limited to:

- **NOT vegetation immediately within a foot of the property line**
- Playground equipment
- Children & pet toys
- Lawn & patio furniture
- Deck railings & door handles
- Garden tool handles
- Pool surfaces
- Pet resting areas
- Bird baths
- Beehives
- Blooming pollinator plants

# What would an applicator be charged with?

- IC 15-16-5-65(5) “Operated in a careless or negligent manner.”
  - Probably reserved for direct exposure to humans
  - \$1000 penalty, not able to be mitigated by OISC
- IC 15-16-5-65(2) “...use a pesticide in a manner inconsistent with its labeling...”
  - Application or residues on non-labeled sites (*see examples on previous slide*)
  - GUP with no adverse effect, Warning/\$250 penalty
  - GUP with adverse effect, \$500 penalty
  - RUP with no adverse effect, \$500 penalty
  - RUP with adverse effect, \$1000 penalty

# Comments or Questions on Off-Target Mosquito Adulticiding Guidance?

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Questions ?

Thank you !

Dave Scott

[scottde@purdue.edu](mailto:scottde@purdue.edu)

765-494-1593