Office of Indiana State Chemist



Residential Mosquito Control Update

171st IPRB Meeting

November 9, 2022

-Dave Scott-

Off-target mosquito adulticiding concerns

- Current concerns focused on private property adulticiding vs. community-wide adulticiding

- Concerns about insecticide exposure to:
  - Humans
  - Pets
  - Wildlife
  - Pollinator





Concerns expressed to EPA include exposures to persons, pets, wildlife, pollinators thru:

- Direct exposure
  - Application or spray *(not addressed in risk assessment or label mitigation)*
  - Drift *(not addressed in risk assessment or label mitigation)*

- Indirect exposure
  - Contact with treated surfaces/areas before spray has dried
  - Contact with treated surfaces/areas after spray has dried
  - Contact with drifted upon surfaces/areas before spray has dried
  - Contact with drifted upon surfaces/after spray has dried

State regulators have asked U.S. EPA:

- Does the EPA registration risk assessment process for mosquito adulticide products include nontarget risks from drift exposure to humans, pets, wildlife, & pollinators?
- Do EPA drift exposure assessments include application with power mist blowers?
- If residential mist blowers are not evaluated for drift exposure is there a plan for future registration actions?
- If risk and exposure assessments are currently adequate, SFIREG urges EPA to develop a statement with reassurances.
- Does EPA have any concerns about unaddressed risks from this use to pollinators?

EPA Responses:

- Drift exposure is included for area-wide, aerial, vehicle mounted mosquito uses, but there are no accepted spray drift assessment models for handheld foggers, sprayers, misters, power misters, etc.

- Current residential exposure evaluation methodologies are protective of all applicable exposures.

- Risk to bystanders based on indirect exposures to drift levels resulting in turf.

- If estimated indirect exposures to turf residues exceeds a Level of Concern (LOC) it will be addressed thru additional label restrictions/mitigation measures.

- Ecological risk from spray drift exposure assumed to be negligible.

EPA Responses:

- Risk assessment assumes application will not result in direct exposure, since such contact would constitute a misuse.

- Many labels for residential adult mosquito control include, i.e.
  - *"Do not apply this product in a way that will contact any person or pet either directly or through drift."*
  - *"Do not allow contact with treated surfaces by people or pets before spray has dried."*

- Residential sites are generally less attractive to pollinators than blooming crops & many labels already have protective language, so benefits outweigh any risks.

- EPA invites SFIREG to provide feedback & response.

Draft assessment of EPA response:

- Direct exposure
  - Application or spray *(not addressed in risk assessment or label mitigation)*
  - Drift *(not addressed in risk assessment or label mitigation)*

- Indirect exposure
  - Contact with treated surfaces/areas before spray has dried *(addressed by label restrictions)*
  - Contact with treated surfaces/areas after spray has dried *(addressed by risk assessment)*
  - Contact with drifted upon surfaces/areas before spray has dried *(not addressed by label)*
  - Contact with drifted upon surfaces/after spray has dried *(addressed by risk assessment)*

How does this impact OISC complaint response?

- Investigations will focus on evidence of:
    - Direct exposures
        - Operated in a careless or negligent manner
        - $1000 civil penalty
    - Indirect exposures thru common touch surfaces that are not included as label-approved target sites
        - Used a GUP inconsistent with its labeling
            - warning/$250 civil penalty
        - Used a GUP inconsistent with its labeling resulting in an adverse effect
            - $500 civil penalty



Questions or Comments?

Dave Scott

scottde@purdue.edu