



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

April 11, 2024

Steve Dwinell, Chairperson  
State FIFRA Issues Research and Evaluation Group

Subject: Responses to September 1, 2023 SFIREG Issue Paper: Mosquito Adulticide Mist Blower Use in Residential Settings

Dear AAPCO and SFIREG Colleagues,

Thank you for the submission of the State FIFRA Issues Research and Evaluation Group (SFIREG) Issue Paper: "Mosquito Adulticide Mist Blower Use in Residential Settings." On April 12, 2022, SFIREG submitted a draft issue paper requesting clarification on EPA's process for assessing residential bystander risk associated with the use of power mist blower mosquito adulticide applications and the Agency provided a response on October 11, 2022 (see attachment). On September 1, 2023, SFIREG submitted a final version of the issue paper which the Agency is responding to in this letter. The Agency appreciates SFIREG's discussion on this topic and its willingness to share insights from State Lead Agencies (SLAs) and the Joint Working Committees (JWC) of SFIREG. The SFIREG issue paper identifies a number of questions and concerns relating to mosquito adulticide mist blower use in residential settings and requests that EPA:

- 1) Evaluate the regulation of mosquito mist blower applications in homeowner and other establishments where human and animal exposure are likely.
- 2) Address the gap and lack of comprehensive regulation of the application outlined and to review and consider the SFIREG issue paper recommendations for specific use directions and restrictions that should be added to residential mosquito control product labels.
- 3) Develop comprehensive and consistent messaging and enforcement to better address the issues and take immediate action.

EPA has considered the issues raised by SFIREG in its September 1, 2023 SFIREG Issue Paper and offers the following responses to each:

**1. SFIREG urges EPA to evaluate the regulation of mosquito mist blower applications in homeowner and other establishments where human and animal exposure is likely.**

**EPA Response:** Previously, SFIREG asked EPA to clarify for registrants, applicators, and the public whether mosquito adulticide product registration included nontarget risks from drift exposures. EPA's response confirmed that spray drift exposures were not specifically assessed for equipment types used in residential areas, such as handheld misters, mist blowers, automatic misting systems, and smoker repellents. Furthermore, the quantitative

residential post-application exposure and risk assessments conducted for these uses/equipment types in residential areas are protective of any potential dermal, incidental oral, or inhalation exposures from spray drift into neighboring non-target residential areas. That is, where the Agency has determined that the maximum potential residential post-application and bystander exposure has been evaluated and these exposure scenarios are not considered of concern for adults and children, then EPA considers these applications protective of any risks associated with off-site movement or deposition.

For mosquito control products, residential post-application risk assessments are conducted using the Health Effects Division's (HED) 2012 Residential Standard Operating Procedures (SOPs<sup>1</sup>); specifically, the Lawns/Turf and the Gardens and Trees SOPs. The 2012 Residential SOPs rely on either chemical-specific exposure data, if available, or use exposure scenario-specific data to assess post-application exposures in treated residential areas where children or adults may spend time engaging in activities following treatments. For assessment of mosquito control products in residential areas with a mist blower equipment type, the Agency assumes use of the maximum label-directed application rate and that the product is directed, as labeled, onto residential lawns/turf, as well as residential landscaping to include bushes and trees, and other areas where mosquitoes may be present.

Given public concerns with commercial for-hire mosquito control applications made with mist blowers in residential areas, the Agency conducted a retrospective evaluation of residential post-application risk assessments completed during Registration Review. This evaluation confirmed that these risk assessments had: 1) interpreted the product label language in a manner that accounted for the potential usage of mist blower equipment where it was not specifically identified; and 2) that the residential risk assessment methods used (i.e., use of the 2012 Residential SOPs to assess post-application exposures to residential lawns/turf, gardens, and trees at the maximum labeled application rates) were protective to bystanders for the potential usage of this technology (whether or not the mosquito control product label had identified the mist blower equipment type).

**2. SFIREG urges EPA to address the gap and lack of comprehensive regulation of the application outlined and to review and consider the SFIREG issue paper recommendations for specific use directions and restrictions that should be added to residential mosquito control product labels, or all residential product labels that allow application technologies that result in drift and off-target application.**

**EPA Response:** Considering the strength of the residential risk assessments conducted for mosquito control products, the Agency has determined that no further action is required at this time to refine the residential exposure risk assessment for these types of products. The Agency does think that residential mosquito control product labeling could be improved with more specific label language to the use of the mist blower technology and recommends that product manufacturers consider voluntarily adding or amending label use directions to include mister-specific application rates and use directions on products where

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<sup>1</sup> Available online: [Standard Operating Procedures for Residential Pesticide Exposure Assessment | US EPA](https://www.epa.gov/pesticides/standard-operating-procedures-residential-pesticide-exposure-assessment-us-epa)

such equipment is intended for use. States may also provide guidance on best practices for the proper use of application equipment for a particular activity, if determined to be desirable. Additionally, EPA notes that per FIFRA section 24(a), states have discretion to regulate the sale and use of EPA-approved products within their jurisdiction, which, apart from label changes, may include additional data requirements, restrictions on pesticide use, or licensing requirements for adulticide products in accordance with local needs.

**3. SFIREG urges comprehensive and consistent messaging and enforcement to better address the issues and take immediate action.**

**EPA Response:** EPA provides information about mosquito control programs, pesticides, and regulation on its public website<sup>2</sup>. The responses provided in this document are consistent with EPA's public information regarding human health assessments of pesticides used in residential misting systems. The Agency will consider updates to the section referencing mist blowers as new relevant information becomes available.

EPA again thanks SFIREG for bringing these issues to our attention. We look forward to continuing our work with SFIREG, AAPCO, state, and EPA Regional partners on these and other important pesticide issues. Please contact Jordan Page ([page.jordan@epa.gov](mailto:page.jordan@epa.gov)) with any questions regarding this response or to continue discussion on collaborative outreach opportunities.

Sincerely,

Ed Messina, Esq.  
Director, Office of Pesticide Program  
Office of Chemical Safety and Pollution Prevention

**Attachment:**

Mosquito Mist Blower Issue Paper OPP Response 10-11-22

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<sup>2</sup> Available online: <https://www.epa.gov/mosquitocontrol>