



BEYOND PESTICIDES PRESS RELEASE

Protecting Health and the Environment with Science, Policy, and Action

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Group Calls for States to Adopt a Safer Strategy to Fight Eastern Equine Encephalitis (EEE) Transmission

Washington, DC, August 28, 2024—In light of widespread insecticide spraying for eastern equine encephalitis (EEE) spread by mosquitoes in New England, Beyond Pesticides is calling on state governors to adopt a comprehensive ecologically-based mosquito management plan that acknowledges both the threat of EEE and the health and environmental harm associated with pesticide exposure.

[In Massachusetts, the group calls the widespread aerial application of toxic substances antithetical to the state's current development of [Biodiversity Conservation Goals](#), recognizing the cascading crises of biodiversity, public health, and climate change.]

"Given the hazards associated with EEE and the pesticides used to combat infected mosquitoes, state and local officials must commit to a rigorous community-based education program to eliminate breeding sites and use of repellents," said Jay Feldman, executive director of Beyond Pesticides.

Spraying pesticides for adult mosquito control is the least effective method for managing these insects, according to [mosquito management experts](#). Instead, communities, such as [Boulder, Colorado](#), recognize the value of mosquito prevention programs benefiting from a healthy ecosystem with natural controls. Beyond Pesticides advocates the adoption of a comprehensive mosquito prevention plan with the following elements:

1. Preventive actions that manage mosquitoes at their breeding sites with the dissemination of information on what residents can do to prevent breeding on their property;
2. Larviciding with biological materials;
3. Surveillance of insects to determine the threat of disease transmission;
4. Spraying for adult mosquitoes (adulticiding) as a last resort after documentation of previous actions and a finding that preventive actions and larviciding did not meet thresholds of managing infected mosquitoes, with a provision for residents to opt-out; and
5. Public disclosure and prenotification of spray schedules and pesticide formulations used.

This week, the [Division of Crop and Pest Services in Massachusetts Department of Agriculture](#) (MDAR) announced that the state would begin aerial spraying in parts of Plymouth County and truck-based spraying in Worcester County in the evening of August 27, and several following days, after the presence of positive mosquito samples for the rare, yet dangerous, EEE. It has been four years since the last EEE detection led to seven deaths and 17 cases in the same counties, leading to the use of Anvil 10+10—a neurotoxic insecticide used in mosquito management. One person has died in New Hampshire from EEE, according to the [Washington Post](#).

While recognizing the public health threat and the need to act, advocates, beekeepers, farmers, and community leaders are deeply concerned at the lack of preventive measures and consideration of ecologically-based mosquito control—an approach that supports wildlife populations, particularly birds and bats that feed on mosquitoes.

According to an MDAR Crop and Pest Services [2019 summary report](#), spraying this product lasted 26 days, treated over 2,048,865 acres across the Commonwealth, and used 9,939 gallons on Anvil 10+10. The product was also applied by air in 2006, 2010, and 2012. The main active ingredients, [sumithrin](#) (synthetic pyrethroid insecticide) and [piperonyl butoxide/PBO](#) (synergist), have been linked to a range of adverse health effects in humans, including a higher risk of [liver disease](#)—which is a tragic irony given that the liver is the primary organ meant to filter out toxic residues including pesticides. These ingredients are also linked to cancer, confirmed neurotoxic and kidney damage, and threats to reproductive health and endocrine disruption.

Mosquito resistance is also a major concern. Recent studies, including one published in [PLOS One](#) earlier this month, found documented proof of resistance to the pyrethroid permethrin in *Aedes aegypti* in both Spain and Colombia, building on [existing research](#) finding pyrethroid resistance in mosquito samples collected in Waltham, Massachusetts—the county next to Worcester.

As mentioned in a [2019 petition](#)—led by Public Employees for Environmental Responsibility (PEER), LEAD for Pollinators, and Jones River Watershed Association—to the Commonwealth’s Office of Inspector General, State Auditor, and Attorney General, “Agencies conducted three aerial spray events from September 10, 2019 through September 24, 2019, costing Massachusetts taxpayers over \$2.2 million, despite the fact that they knew there were no mosquitoes out, and that spraying after the first week of September would result in low efficacy.”

Anvil 10+10 has also been under major scrutiny after detection of “forever chemicals,” or PFAS in the products’ containers, in a test commissioned by PEER and confirmed by the MA Department of Environmental Protection and the U.S. Environmental Protection Agency. [See [here](#), [here](#), and [here](#) for Beyond Pesticides’ *Daily News* coverage.]

Sumithrin (d-Phenothrin) exposure can result [in lung irritation](#) and has been documented to cause asthmatic responses in those exposed. [The label](#) for Anvil 10+10 provides a box with a “Note to Physician: Contains petroleum distillate—vomiting may cause aspiration pneumonia.”

Anvil 10+10 is not a singular ingredient. It is a formulation that also contains piperonyl butoxide (PBO), a chemical listed as an active ingredient but is intended to perform the role of “synergist,” increasing the potency and toxicity of the active ingredient. The U.S. Environmental Protection Agency (EPA) considers PBO a [possible human carcinogen](#). In addition to the respiratory irritant sumithrin and the possible carcinogen PBO, Anvil 10+10 contains [“other ingredients”](#) that are not listed, yet comprise 80% of the product’s formulation.

Strategies for nurturing natural mosquito controls must include strategies that protect [birds](#) and [other mosquito predators](#). Pesticides applications are detrimental to a healthy ecosystem.

For more information, see [Public Health Mosquito Management Strategy](#), which advises decision makers on communities’ mosquito management strategies that eliminate reliance on toxic pesticides. Safer personal repellents [see [How To Repel Mosquitoes Safely](#)]. Beyond Pesticides’ allies educate neighbors on safer mosquito management with Beyond Pesticides’ doorknob hanger: [Manage Mosquitoes This Season without Toxic Chemicals](#).

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Beyond Pesticides is a 501(c)3 nonprofit organization headquartered in Washington, D.C., which works with allies in protecting health and the environment with science, policy, and action to lead the transition to a world free of toxic pesticides. Learn more at <https://www.beyondpesticides.org/>.