

MOSQUITO MISTERS: WHAT YOU NEED TO KNOW

A FACTSHEET FROM SAFER PEST CONTROL PROJECT



Mosquito Misters are being marketed to homeowners all across the country as “safe” and “effective” however, they present many inherent health risks to you and your family.

How it works

- Misters are exterior aerial spray system designed to deliver short bursts of insecticide, usually 30 to 60 seconds in length, to kill airborne mosquitoes.
- The mist is sprayed from a series of nozzles that are connected via tubing to a large tank containing insecticide.
- The most common insecticides used are pyrethroids (synthetics) or pyrethrum (organic), which though derived from the Chrysanthemum flower, are highly concentrated and refined chemicals combined with unknown inert ingredients.
- Piperonyl butoxide (PBO) is often used in formulations to make the insecticide even more hazardous.

Health Concerns

- **SAFETY:** Despite being registered with the EPA, it is illegal and untrue - to say that pesticides are ‘safe’. Many industry websites advertising misters make this erroneous claim. There is no such thing as a safe pesticide.
- **HUMAN HEALTH PROBLEMS:** Pesticides used in misters such as PBO, pyrethrins and pyrethrum are toxic chemicals designed to disrupt life functions. There is strong evidence linking them to negative health effects such as: nervous system disruption;

hormonal and reproductive problems; cancer; and, allergies and irritation.

- **INHALATION RISK:** In an assessment of mosquito mister systems, the EPA found that airborne mist droplets could be inhaled and represent a health risk to toddlers. They recommend that spraying not be conducted when people are outside.
- **ACUTE TOXICITY:** Pyrethrins have been shown to be acutely toxic to aquatic life, and are especially deadly to cats. Anyone with cats or a stocked pond should avoid using a misting system.

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Safer Pest Control Project is dedicated to reducing the health risks and environmental impacts of pesticides and promoting safer alternatives in Illinois.

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MOSQUITO MISTERS: INFORMATION YOU NEED TO KNOW *(continued)*

Problems with Misters

- **INEFFECTIVE:** Misters are largely ineffective systems. They spray on a timed basis without proper monitoring of the insect population. Sprays applied at the wrong time will fail to reach their intended targets, wasting money and doing little to reduce the threat.
- **INEFFICIENT:** To work properly mist droplets must contact airborne mosquitoes. This is extremely difficult since different mosquito species are active at different times of the day. Spray systems cannot guarantee total elimination, even with increased application time and pesticide volume.
- **OVEREXPOSURE:** Owners can change mister settings to spray more frequently than recommended. This will increase a family's potential for exposure to pesticides, without guaranteeing an additional reduction in mosquito numbers.
- **RESISTANCE:** Indiscriminate, regular spraying may increase the likelihood that mosquitoes become resistant to those pesticides in use.
- **COLLATERAL DAMAGE:** Insecticides often destroy beneficial insect organisms that are necessary to keep mosquito populations in check.

Conclusion

Spraying adult mosquitoes (adulticiding) is the least effective way to control mosquito populations. Given the wide diversity of mosquito species, their different behavior patterns, the small probability that an airborne mosquito will actually contact mist spray, and that mosquitoes are being treated whether a problem truly exists or not, it is clear that misting systems promote a false sense of security for homeowners. The collateral damage of using these misting systems can be high and pose an unnecessary risk to people, animals and beneficial insects.



A Common Mosquito: Culex nigripalpus

**For more information on alternatives
to adulticiding see our factsheet:
[West Nile Virus and Your Community](#)**

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