

Mosquito Control: Mosquito traps are wonderful — primarily for attracting more of them

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Naples is a wonderful place to live. The beautiful scenery, tropical beaches, snow-free climate, recreational opportunities for nearly all tastes, arts, culture and nature all contribute to make Naples the desirable location that it is.

Then the mosquito season arrives, and it is time to pay the price of living here. Along with the mosquitoes come advertisements for products claiming to protect people from mosquitoes, and the diseases they may transmit.

The Collier Mosquito Control District (CMCD) receives frequent calls asking whether these devices work and if they are a worthwhile investment. These are not easy questions to answer because "work" needs to be defined and "worthwhile" is a very subjective measurement. For those who might be considering one of these products, here are some things to consider before making a purchase:

Devices that use a blue or ultraviolet light as an attractant should not even be considered. Likewise, devices that mimic dragonfly or male mosquito wing beat sounds or devices that use ultrasonic waves to repel mosquitoes do not work.

There are, however, new types of mosquito traps that use a variety of different methods to attract mosquitoes. Unlike the ultraviolet light traps, these new traps do actually attract and kill mosquitoes, sometimes in large numbers. There are two basic trap designs; one type uses carbon dioxide (the gas that human beings exhale) as the main attractant, combined with octenol, heat, or water vapor as secondary attractants, while the other type mimics the sound of a heartbeat as the main attractant. Both trap designs do catch some mosquitoes so, in that sense, they may be considered to "work."

However, most of these traps make claims that they will remove, eliminate, or eradicate all of the mosquitoes in a yard or some other defined area. Here is where advertising claims may depart from mosquito reality, especially in Naples.

There are two basic problems with all of these devices:

No trap yet developed is even remotely as attractive to mosquitoes as the average human. This is the more important of the problems. If people are close to these traps (even 30 to 50 feet away may not be enough) the mosquitoes will leave the trap alone and

concentrate on the people instead of the trap. The trap may actually serve to attract more mosquitoes into the yard and actually increase the risk of being bitten.

A single trap will provide little real protection to a yard. This problem pertains to traps that use carbon dioxide or some other type of chemical attractant, the kind about which CMCD receives the most calls. These traps depend on the breeze to spread the attractant downwind. They do not attract any mosquitoes from the sides or from upwind, and do not provide protection in those directions.

Because of the way these traps work, anyone standing downwind from one will be attacked by the mosquitoes traveling toward the trap. People located to either side of the trap, in relation to the wind direction, will be attacked by the mosquitoes attracted to them as though the trap was not even there.

The only area protected by this type of trap is the area immediately upwind. People in this zone might receive fewer bites as a result of using the trap, provided that they are not too close to the trap. So, to get any benefit at all from the trap it must be moved frequently to keep it down wind of and well away from the area to be protected.

Can these traps remove all the mosquitoes in a yard? It is very doubtful that they can, and there is no published scientific data to support such claims. This is especially true in the Naples area where our mosquito population is constantly being replenished from the Everglades.

Do these traps "work"? Yes and no.

Yes, they attract and catch mosquitoes, and in a region that produces very few mosquitoes during a very short mosquito season they may shorten the season by a day or two. However, even that limited benefit has not been scientifically verified.

No, in Naples with its long mosquito season and constant influx of mosquitoes it doubtful that the traps will have any noticeable impact on the mosquito population in a yard here. Until such time as there is good, scientific data to suggest otherwise, homeowners would be better off spending their money on insect repellent.

Even the comprehensive control efforts of the CMCD will never eradicate or eliminate all the mosquitoes in the Naples area. The best that can be hoped for is that the mosquito population will be maintained at a level that makes living here tolerable.

Think of them as the paradise tax: Putting up with mosquitoes is just part of the price for living in Naples.



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