Not all of your customers or potential customers have had experience with bed bugs, rats, or even cockroaches. But they have all had events ruined by pesky mosquitoes and are often eager to share their knowledge about them. Unfortunately, much of what the general public believes about mosquitoes and mosquito control is not accurate. It has been garnered from the Internet, discussions with neighbors, or from stories passed down between generations. Be prepared for when you show up to discuss a service or sale regarding mosquitoes (and other pests, for that matter). Your customer may have done a considerable amount of research about the target pest, and what does and does not work to control them. This can lead to preconceived notions and erroneous conclusions. This article will address some of these myths and fallacies, explain why they are not true, and give some suggestions as to how to interact with customers who insist that what they believe is correct.

Some myths and fallacies regarding mosquitoes and their control.

By Stanton E. Cope, PhD
1 Mosquitoes Come From Damp Vegetation. The mosquito life cycle requires water for the egg, larval and pupal stage. Adult mosquitoes, when not flying or biting, prefer to rest in areas that are cool, dark, moist and out of the wind. One of their favorite resting sites is vegetation, so customers may think that this is where the mosquitoes are actually breeding because that is where they are most likely to encounter them. You should direct your adult mosquito control efforts to sites, whether residential or commercial, that are cool, dark, moist and out of the wind.

2 Mosquitoes Live the Entire Summer. Although the life span can vary by species, most female mosquitoes live 2-3 weeks. It is highly dependent on environmental conditions, particularly temperature and humidity. Also, some species that spend the winter months as adults may live six months or longer.

3 Certain Plants Are Highly Effective at Controlling/Repelling Mosquitoes. There are no plants that are effective at repelling or controlling mosquitoes simply by growing in a yard or in landscaping. What they do provide, however, is nice harborage for mosquitoes and other pests to lurk in. Many plants contain essential oils that may repel insects, but the plants must be crushed or burned for this to happen.

4 All Mosquitoes Bite Humans. First, only the female bites. She does so because she requires a blood meal to produce her eggs. After just one blood meal, a female mosquito can produce about 250 eggs. Second, scientists estimate that there are about 3,000 species of mosquitoes in the world, with about 175 occurring in the United States. The majority of these species, however, do not feed on humans. Some feed on large mammals, others on birds, and some feed on reptiles and amphibians.

5 Trimmed Vegetation Will Help Reduce Mosquitoes. As stated earlier, mosquitoes prefer to rest in places that are cool, dark, moist and out of the wind. Thick vegetation can provide all of this, and therefore is an excellent harborage for mosquitoes to hang out in. Trimmed vegetation allows for more airflow, increased sunlight, and generally drier conditions, all of which will serve to discourage pests. So, encourage your customers to keep vegetation neatly trimmed and not touching houses, garages, and other structures, if feasible.

6 Fans Are Ineffective in Repelling Mosquitoes. Mosquitoes are delicate creatures and relatively weak fliers, so placing a floor fan or two on your deck or patio will help to keep them away. This can be especially effective in commercial accounts such as restaurants with outdoor patios. Ceiling fans, which are often kept on a low setting, are not very effective, as mosquitoes tend to stay relatively close to the ground and hence don’t feel any breeze.
MOSQUITOES ARE JUST PESTS AND SERVE NO EARTHLY GOOD. Mosquitoes are an important component of the food chain. Mosquito larvae and pupae are eaten by fish (and occasionally by other organisms) and adult mosquitoes are eaten by bats, birds and other insects. And, believe it or not, there are some mosquitoes that eat other mosquitoes in the larval stage!

SOME PEOPLE ARE BITTEN MORE OFTEN BY MOSQUITOES THAN OTHERS. I can’t tell you how many times I have heard conversations go: “When my husband and I sit outside, I get bitten all the time, but he never does.” The No. 1 thing that mosquitoes use to find a host is carbon dioxide, which they can sense from quite a distance. As they get closer, they also key in on heat. Once a mosquito gets real close to a potential host, things get complicated. A variety of odors, including sweat, lactic acid, perfumes, shampoos and others are detected by a mosquito’s highly sensitive antennae, greatly influencing biting behavior. Visual factors, such as host movement, may also play a part. So, many things come in to play to help a mosquito decide who she is going to bite!! I like to explain it by saying that each of us puts out a unique “chemical signature,” some of which are more attractive to mosquitoes than others, and these “signatures” are highly variable and influenced by many factors. What can safely be said, however, is that there is no scientific evidence to support the claims that ingesting things such as garlic, vitamin B12, bananas, and beer either attracts or repels mosquitoes.

Black light insect electrocution devices are very popular with homeowners, who enjoy sitting outside at night and hearing the “pop, zap and pow” as bugs are vaporized. However, according to the American Mosquito Control Association (www.mosquito.org), in two published studies, mosquitoes comprised only 4.1% and 6.4% of the daily catch over an entire season. In addition, the zappers also killed a large number of non-pest insects, including many that are beneficial predators on other insects. So, zappers do, in fact, kill some mosquitoes, but they certainly do not control them.

Some species, most notably the Asian tiger mosquito, Aedes albopictus, only flies about 100 yards from the breeding site. Most species will fly about 1-3 miles but saltmarsh mosquitoes may fly up to 40 miles!

BATS ARE EFFECTIVE AT CONTROLLING MOSQUITOES. It is a widespread belief that bats eat thousands of mosquitoes every night. Far from it. Food items identified in the diets of bats are primarily beetles, wasps and moths. In fact, according to the AMCA, in all studies to date, mosquitoes have comprised less than 1% of the gut contents of wild-caught bats. There is no question that bats WILL eat mosquitoes but their use alone will not be effective in controlling them.

ALL MOSQUITOES BITE DURING DUSK AND EVENING HOURS. This is one of the biggest misconceptions. Several mosquito species, most notably the Asian tiger mosquito, will readily bite during daytime hours. Additionally, they are “secretive” biters, often focusing their efforts around the knees and ankles so customers are not as likely to see them.

Summary. Clearly, there is a lot of misinformation floating around about mosquitoes and what works to control and repel them. As a pest management professional, you can educate your customers about the real facts. Mosquitoes can be a serious nuisance, and they also spread many diseases that can be highly debilitating and even fatal. It is important that your customers have the correct information in order to make informed decisions. 

The author is director of entomology and regulatory services for Terminix International, and can be contacted at scope@gie.net.