

A SUPPLEMENT TO

PMP

Pest Management
Professional

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Meeting Mosquito Control Challenges

2023 MOSQUITO MANAGEMENT SUPPLEMENT

A NORTH COAST MEDIA PUBLICATION

BROUGHT TO YOU BY



Mosquito control made easier

Warmer weather brings unwanted visitors, with mosquitoes being one of the more loathsome.

A single swat, bite or buzz in the ear will have people quickly retreating indoors. This low tolerance homeowners have for mosquitoes can bring opportunity your way.

However, mosquito management can be tricky and complex. Trying to control flying insects, which could potentially be traveling long distances from their breeding sites to your customers' properties, is no easy feat. Additionally, if nuisance and bites weren't enough, the ability to transmit disease-causing pathogens further elevates the concern. Worldwide, mosquitoes kill more human beings than any other animal, including humans. Having the right tools, knowledge and high-quality products can make all the difference.

Flexible and effective

Control Solutions Inc. (CSI) has expanded its portfolio to include ZC formulations, which combine the benefits of a capsule suspension (CS) and suspension concentrate (SC) in one convenient product. These formulations help pest management professionals (PMPs) be more efficient and provide treatments with confidence. CSI's ZC products include multiple active ingredients that work together to make these products flexible, fast-acting and long-lasting solutions for hard-to-control pests — like mosquitoes.

During the day, when the sun is out and temperatures are hot, adult mosquitoes often can be found resting in the cool, still, shady places around the landscape and vegetation. Preferring places out of the wind and direct sunlight, the undersides of leaves and other surfaces provide mosquitoes the protection they're looking for. Some species, such as *Aedes* mosquitoes that vector dengue, Chikungunya and Zika viruses, are known to be daytime biters. After feeding, they will seek out outdoor surfaces to rest on and digest their bloodmeals.



Complete protection

Proven to control even the mosquitoes that transmit West Nile and Zika, DuraFlex ZC offers lasting protection to outdoor areas. Mosquitoes that land or rest on surfaces that have been treated will die for 30 days after application. Additionally, DuraFlex is effective against other hard-to-control pests around the landscape including ants, ticks and fleas.

DuraFlex is formulated with three active ingredients that work to kill adult mosquitoes, break the insect life cycle, reduce

pest reproduction, and deliver results. It can be used on lawns, turfgrass, ornamental plants and shrubs, and around the home for controlling both biting and nuisance mosquitoes. Simple mixing rates and flexible reapplication intervals make dosing and measuring DuraFlex ZC easy. This means PMPs can spend more time solving their customers' problems and less time reading and interpreting labels. With long-lasting benefits and superior active ingredients, DuraFlex ZC is ideal for PMPs looking for a simple, easy-to-use product that is effective against a wide range of pests.

Even when using trusted products for mosquito control, though, it's important to address mosquito breeding areas to maximize your impact on the mosquito population. Mosquitoes require water to complete their life cycle, so most female mosquitoes will seek out stagnant water or containers that collect water in which to lay their eggs. This includes things around the yard like bird baths, plant saucers, rain gauges or clogged gutters. When possible, remove these larval developing sites or simply dump the water out.

CSI's complete portfolio of vector control products can be viewed online at **CSI-pest.com**. We strive to create effective, reliable, economical pest control solutions to help PMPs maximize results and income potential. It all comes back to our credo: **CSI: Innovation you can apply.**



BY HEATHER PATTERSON
Technical Service Manager,
Product Development Team,
Control Solutions Inc. (CSI)

Take on these 4 mosquito control challenges

Making backyards safe and comfortable compels PMPs to work with customers

By Diane Sofranec | PMP Senior Editor

Pest management professionals (PMPs) face unique challenges when providing mosquito control services. Yet many say it's well worth the effort. Why?

"Mosquitoes are considered the deadliest creature in the world, killing up to half a million people yearly due to diseases like malaria," says Jeff Preece, BCE, technical director, ZipZap Termite & Pest Control in Lawson, Mo. "Mosquito management services provide people with the protection they need to do everyday activities without the fear of getting sick."

Mosquitoes make it difficult for homeowners to enjoy the outdoors when they are grilling, gardening, sitting by the firepit, or watching their children play. "It's hard to spend time in a yard that people spend thousands of dollars on if mosquitoes are a nuisance," says Jacob Orr, CEO of GreenShield Home & Pest Solutions in Ashland, Va.

PMPs' desire to help customers pushes them to overcome any issues they may face, and boost revenue in the process.



Jacob Orr

Challenge 1: Customer Cooperation

Customers have not been trained in mosquito management, so it's up to PMPs to make them aware of the reasons mosquitoes are attracted to their properties.

"Our biggest challenge is customer cooperation in removing or correcting breeding sites," says

Buddy Herring, owner of Summit Pest Solutions in Fletcher, N.C. "To overcome this, we will do some of it ourselves if it's easy." For instance, he relies on treatments that prevent larval development in standing water, and offers gutter cleaning and repair for an additional charge.



Buddy Herring



He admits some customers just won't cooperate, however. "The only thing we can do is be consistent with our recommendations, set expectations based on initial inspection findings, and then refer back to those recommendations at each service," Herring adds.

Advanced Pest Solutions Owner Selena Bira says her Litchfield, Maine-based company recommends customers remove from the yard toys, leaf litter and any other items that can hold water. Technicians also ask customers to mow their lawns a day or two before a service call, for optimal results. In addition, they encourage customers to maintain their properties with such solutions as drainage ditches in an effort to eliminate standing water.



Selena Bira

During each service call, the company's technicians speak with customers, a critical step in the mosquito management process. "It's important to talk with customers in person and explain the biology of mosquitoes, and the science behind and benefits of their control, so they fully understand our requests and how these requests will make the best use of their service dollars as we use integrated pest management [IPM] and fewer pesticides," Bira says.

"We recognize that we all have busy lives, so customers aren't always able to accommodate our suggestions," Bira adds. "But I believe our

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relationships being built on trust go a long way in customers respecting our suggestions and making the attempt to complete them.”



JD Jaramillo

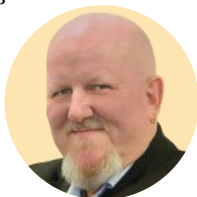
JD Jaramillo, owner of Friendly Pest Solutions in Brandon, Fla., says efforts to get customers to reduce mosquito breeding sites start by communicating this message in his company’s service reports.

“We train our team members to point out conducive conditions during the initial inspection,” Jaramillo explains. “We want to set the right expectation in the beginning, so the customer understands that a mosquito reduction program is a partnership, and we rely on their assistance in eliminating conducive conditions on their properties.”

Challenge 2: Conducive Conditions

Of course, PMPs know it’s impossible to eradicate every mosquito from a customer’s property. They are flying insects, after all. Conveying that message to customers helps set expectations and reduce callbacks.

“Mosquito control service is a reduction service,” says Robert Gaul, ACE, technical director of Thomas Pest Services in Schenectady, N.Y. “Yes, customers will see mosquitoes after the application is performed, but the number of mosquitoes will be greatly reduced.”



Robert Gaul

Mosquitoes are prevalent on a customer’s property for a reason, he adds. Standing water, nearby water sources, or leaf litter are just what breeding mosquitoes need.

“We take the time to educate our customers on not only the application process, but why they may experience a large amount of mosquito activity,” Gaul says. “It’s not always just about the application, it’s about what we can do together to reduce mosquito populations.”

His company evaluates each customer’s property and asks for help to reduce mosquito breeding sites. Changing water in bird baths and pet bowls, keeping gutters clean, not overwatering plants, and tipping over any item that may hold water are among the most frequent recommendations customers receive.

Whether it’s the landscaping, standing water,

or non-target pests, Nate Heider, regional manager at Spidexx Pest Control in Minneapolis, Minn., agrees the customer’s environment poses a challenge.

“As PMPs, we need to take pride in the work we provide. We need to set an example for excellence,” he says. “The environmental component always should be top of mind.”

His company conducts detailed inspections of the treatment area, and takes note of potential areas of concern. “Then, we choose the proper treatment method and product,”

Heider says. “Many times, this entails choosing multiple treatment methods.”

Orr agrees, noting that inspection and identification are 75 percent of the battle when providing mosquito management services.

“In a residential or commercial environment, container breeding mosquitoes can lay eggs in just about anything that will hold even the smallest amount of water,” he says. “You’re not just looking for holes in trees. Gutters, tires, kids’ toys, grills, tarps and planters are now in play. To identify and eliminate these breeding sources, you must conduct a thorough inspection.”

Bira says she believes meeting with customers and walking their properties is an excellent practice, and a great way to show the company’s expertise. When an Advanced Pest Solutions technician walks the property with a customer, they point out conducive conditions and educate them on the mosquito service and the control materials that will be used. The technician also gathers information from customers about where their wells are, where their pets and children hang out, and where their property lines are located.

“It’s a great time to talk about where they plant gardens and what their expectations are for our mosquito management service,” Bira says. “Expectation-setting before services begin by explaining that our service is a reduction and not an elimination of mosquitoes, is critical to customer satisfaction and trust.”

Short Lifecycle

The lifecycle of an *Aedes aegypti* mosquito takes approximately eight to 10 days, from egg to adult, according to the Centers for Disease Control and Prevention. Although adult mosquitoes live only about two to four weeks, eliminating conducive conditions from neighboring yards will help reduce their breeding sites.

Challenge 3: Neighboring Properties

Conducive conditions on neighboring properties also can be a challenge for PMPs. Not all neighbors opt for mosquito control services, although getting them on board not only would aid control, but boost revenue as well.

“Mosquitoes can lay eggs in various standing water sources, such as tires, cans, buckets, clogged rain gutters, bird baths and tree holes,” says Preece. “Without controlling these breeding sites, the population of mosquitoes will continue to increase.”

Preece says his technicians educate customers on the breeding sites in their yards, and then encourages them to continue the discussion with neighbors about the breeding sites in *their* yards.



Jeff Preece

When homes are located close together, and neighbors and their pets are outside, mosquito control becomes even more challenging. Gaul says his technicians let neighbors know they are about to perform a mosquito application on their neighbor's property, which gives them the opportunity to head indoors if they choose.

“We must be very cautious of our surroundings, not only to the property we're treating,” Gaul says. “We explain the application process, as well as information about the ecofriendly products we're using. We assure neighbors we will keep our product off their property when the application is performed. People respect that we're safety conscious.”

Communicating with neighbors in densely populated neighborhoods also helps dispel fears when they see technicians suited up and spraying or misting nearby.

Heider says many of his company's mosquito management customers signed on because technicians simply talked to the homeowner about the benefits of the service. Taking this step offers added benefits as well.

“One of the greatest unexpected resources is your current customer talking to their neighbor about how they can benefit from having the same service,” Heider says. “This makes the interactions with the primary customer all the more important, because they essentially become a self-perpetuating investment if they're well taken care of.”

In addition, neighbors take notice when technicians offer mosquito control services. He says many people approach them when they are treating a neighbor's yard. The company encourages its technicians to stop and talk to neighbors, and cloverleaf homes in the area.

Challenge 4: Training Technicians

Well-trained technicians are vital to pest control companies that aim to keep customers and increase profits.

“Losing customers because you are unable to reduce the mosquito population, spending unnecessary money on labor, materials and fuel for service calls are all results of a technician who has not received adequate training,” Orr says.

Training for the technicians at Orr's company is a mix: about 20 percent takes place in a classroom, whereas 80 percent is hands-on out in the field. Once a week, every technician rides with a service manager. The pair greet the customer, explain the treatment plan, conduct a fact-finding mission to learn where customers spend most of their time and notice more mosquitoes, perform a proper inspection, and then apply the treatment. Once those steps are completed, the service manager and the technician speak with the customer again.

“It is important to communicate your findings, treatment strategy, what the customer can do to help and set realistic expectations,” Orr says. “Proper communication with your customer will reduce cancellations and service calls, so we try to develop our technicians' social skills along with their technical skills.”

If mosquito control is so challenging, why offer the service at all?

Mosquito management services contribute to the bottom line, as customers are willing to pay for services that enable them to enjoy their backyards. It is a viable form of revenue generation, Heider says. “Starting costs are generally low, and it requires minimal marketing. Your current customers are perfect for this add-on service.”

It also is one of the most beneficial services he provides customers, he adds, because the true value of mosquito control services is the public health protection it provides. **PMP**



Nate Heider

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2023 MOSQUITO MANAGEMENT SURVEY

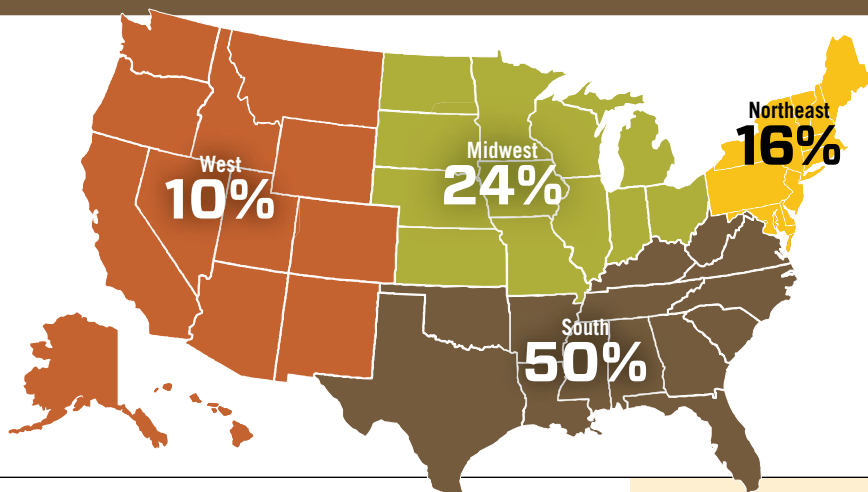
Area of Operations

WEST (AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY)

MIDWEST (OH, IN, IL, MI, WI, MN, MO, IA, ND, SD, NE, KS)

SOUTH (AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV)

NORTHEAST (CT, DE, ME, MD, MA, NJ, NH, NY, PA, RI, VT, DC)



2023 Projected Total Revenue

29%

\$499,999 or less

17%

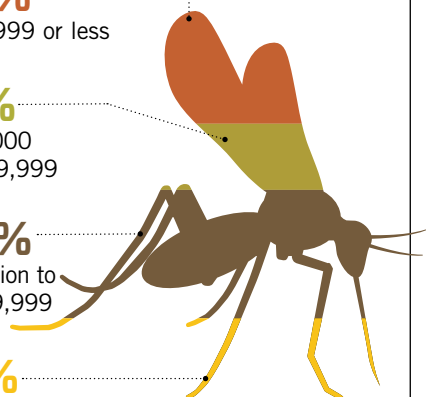
\$500,000 to \$999,999

33%

\$1 million to \$4,999,999

21%

\$5 million or more



2023 Projected Mosquito Management Revenue

47%

\$49,999 or less

20%

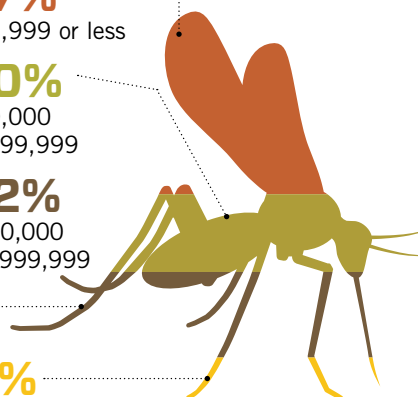
\$50,000 to \$99,999

22%

\$100,000 to \$999,999

11%

\$1 million or more



Number of Technicians

23%

2 or fewer

41%

3 to 10

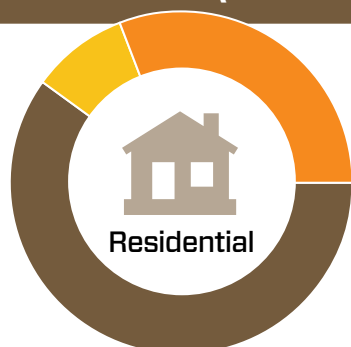
29%

11 to 99

7%

100 or more

2022 MOSQUITO MANAGEMENT REVENUE BY STRUCTURE TYPE



60% generated 51% or more from residential

9% generated 26% to 50% from residential

31% generated 25% or less of their mosquito management revenue from residential



5% generated 51% or more from commercial

7% generated 26% to 50% from commercial

88% generated 25% or less of their mosquito management revenue from commercial



3% generated 51% or more from government/municipal

2% generated 26% to 50% from government/municipal

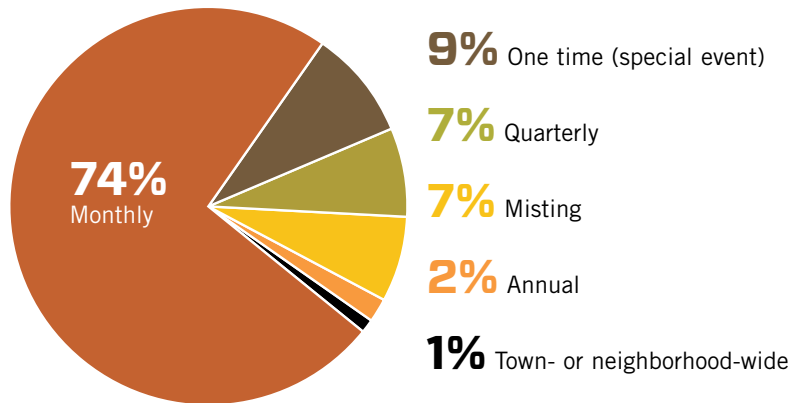
95% generated 25% or less of their mosquito management revenue from government/municipal

GETTY IMAGES; TINKA/ISTOCK / GETTY IMAGES PLUS (MAP); BUBAONE/DIGITALVISION VECTORS (MOSQUITO); BROWNDOGSTUDIOS/ISTOCK / GETTY IMAGES PLUS (BUILDINGS)

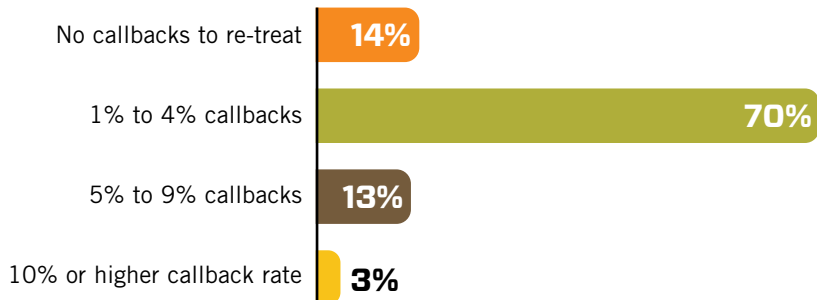
SOURCE: PMP MOSQUITO MANAGEMENT SURVEY NOVEMBER-DECEMBER 2022

Mosquito Management Service Frequencies

(in order of customer requests)

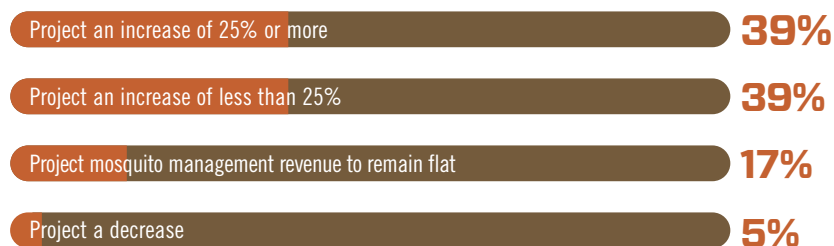


2022 Mosquito Management Callbacks



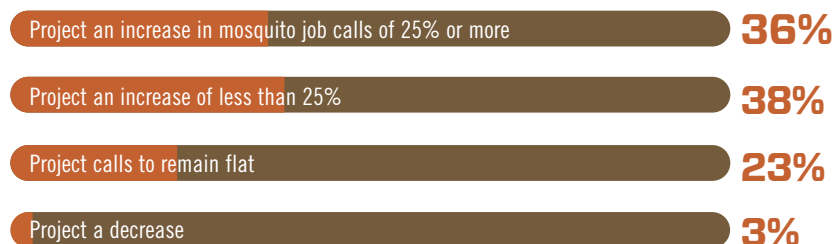
Mosquito Management Revenue

Projected change 2023 vs. 2022

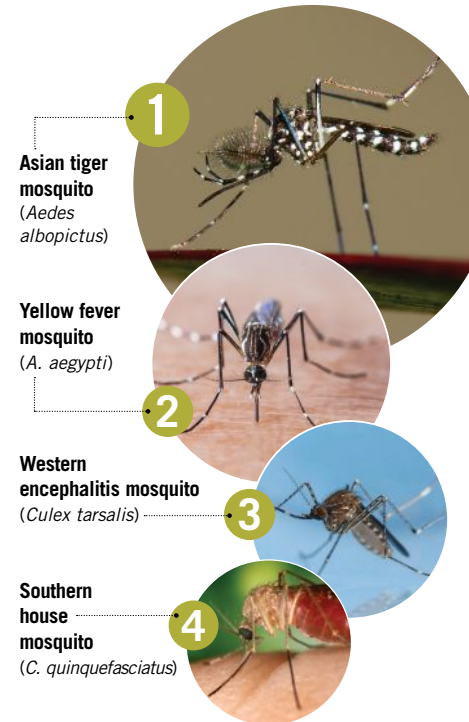


Mosquito Job Calls

Projected change 2023 vs. 2022



Top 4 Mosquito Species by Number of Jobs Generated & Revenue Generated



Mosquito Management Job Generators

- 1 Add-on service for current general pest management clients
- 2 New clients requesting mosquito management services
- 3 Add-on service for current termite management clients

Like honeybees, male and female mosquitoes feed on plant nectar for energy.

SOURCE: AMERICAN MOSQUITO CONTROL ASSOCIATION



2 POWERFUL OPTIONS FOR SUPERIOR MOSQUITO CONTROL



Tekko® Pro

Disrupts the life cycle of listed insects, preventing them from developing into adults.



DuraFlex ZC

Combines 3 modes of action
Bifenthrin, Novaluron and
Pyriproxyfen.



INSECTICIDE

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