

STATE OF THE 2018 MOSQUITO MARKET REPORT



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2018 STATE OF THE MOSQUITO MARKET REPORT

Mosquito control revenue notched another gain in 2017. More pest management professionals offered the service, either as a primary offering or as part of their general pest control service. And although callbacks remained a challenge, pro-in-the-know managed this by renewing their focus on customer education. With public awareness of mosquito-borne disease helping to drive sales, more PMPs see this service as a significant growth opportunity.

The Market: Gains Continue

Last year was darn good for mosquito control. Rottler Pest & Lawn Solutions in St. Louis saw sales of its Signature Plus

program increase 40 percent, directly due to this service, said Technical Director Jason Everitt.

Dayton's Pest Control Services in Knoxville, Tenn., also had "a pretty good season" with mosquito control revenue up 14 percent in 2017, said President Dayton Hylton. "We hit the most homes than we've ever treated in a month and continued to grow the service," he said.

Most PMPs (67 percent) reported that mosquito control revenue increased last year, according to the PCT 2018 State of the Mosquito Control Market survey. Sixty four percent cited an increase of 15 percent or more — double the 32 percent who reported the same 15-percent-plus gain in 2016. Twenty two percent said

mosquito control revenue jumped 50 percent or more.

Overall, mosquito revenue remained a small portion of total earnings. Forty-four percent of PMPs said it contributed 4 percent or less to the bottom line; more than half (53 percent) said it generated less than \$10,000 in 2017.

Still, revenue is "growing every year," said Steve Christensen, who owns Fortress Termite and Pest Control in Collierville, Tenn. Customers responded so well to his mosquito control promotion "I had to add another truck for this year," he said.

According to the PCT survey, more than half of PMPs (54 percent) offer mosquito control services. More than a third (32 percent) did not offer this service five years ago.

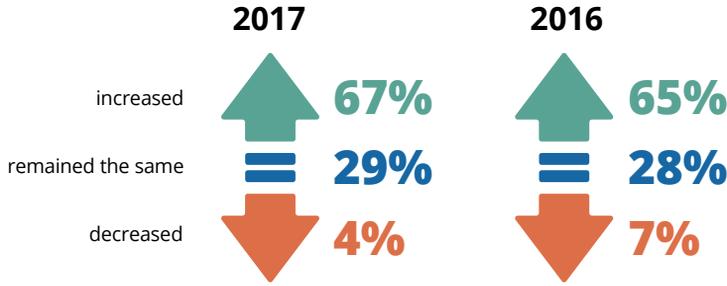
"Customers started asking for it and getting other quotes from competitors; we had to get into it or potentially lose those customers," said Bradley Ulanowski, owner of Termite King near Fort Worth, Texas.

The market "keeps going stronger and stronger; the economy's doing better; people are getting out there and enjoying their yards more," explained David Davis, owner of Mosquito Squad of the Wiregrass, Dothan, Ala. He "hit the ground running" in 2012 and "I haven't slowed down since." ●



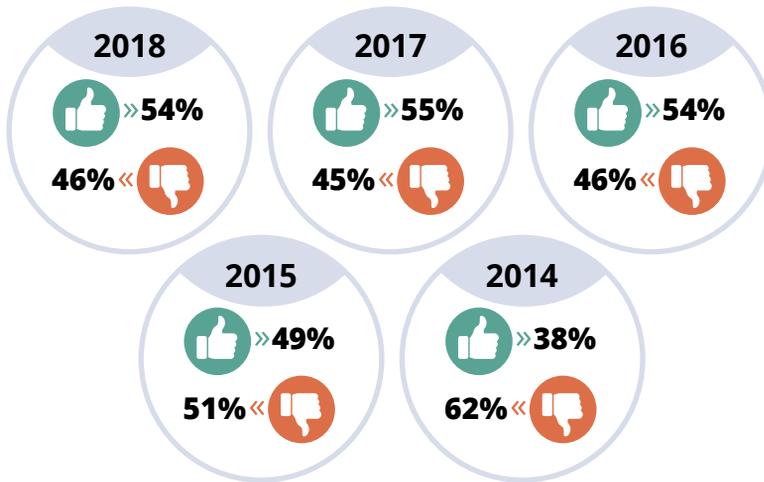


Change in percentage of mosquito control revenue compared to previous year:



Source: Readex Research; Number of respondents involved in mosquito control before 2017: 96; before 2016: 100

Percentage of companies offering mosquito control services:



2018 Number of respondents: 235; 2017 Number of respondents: 224; 2016 Number of respondents: 428; 2015 Number of respondents: 192; 2014 Number of respondents: 381
 Source: Readex Research, PCT mosquito market surveys, 2014-2018

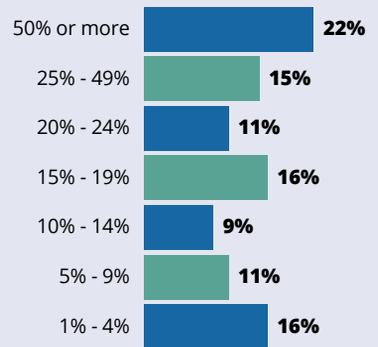
Percentage of total revenue from mosquito control services:

	2017	2016
80% - 100%	9%	4%
50% - 79%	1%	1%
30% - 49%	5%	4%
20% - 29%	5%	4%
15% - 19%	9%	6%
10% - 14%	8%	10%
5% - 9%	0%	10%
3% - 4%	15%	20%
1% - 2%	13%	19%
less than 1%	16%	23%
none	19%	N/A
no answer	1%	2%

Source: Readex Research; Number of respondents offering mosquito control service in 2018: 128; in 2017: 123

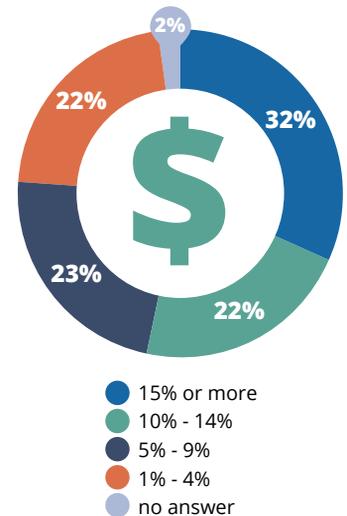


Amount that mosquito control revenue increased in 2017 compared to 2016:



Source: Readex Research; Number of respondents who saw an increase in mosquito control revenue in 2017: 64

Amount that mosquito control revenue increased in 2016 compared to 2015:



Source: Readex Research; Number of respondents who saw an increase in 2016 mosquito control revenue: 65



THE SERVICE: VALUE SELLS

Most PMPs (80 percent) offer mosquito control as an add-on service, found the PCT 2018 State of the Mosquito Control Market survey.

But an increasing number — 45 percent, up from 30 percent in 2017 — provide it as a primary service, which may reflect the growth of mosquito franchise operations. Specializing in mosquito control and offering a stand-alone service appeals to customers who believe expertise generates results, explained David Davis, owner of Mosquito Squad of the Wiregrass. “You can go to a Waffle House and get a steak, but do you?” he asked.

The survey also found that 25 percent

of PMPs (up from 18 percent last year) offer mosquito control as a general pest control service. In follow-up interviews, PMPs said they are bundling it with general pest, rodent or termite control. It’s the only way Loyal Pest & Termite Control in Henrico, Va., offers the service. Rottler Pest & Lawn Solutions rolled mosquito control into its Signature Plus program last year.

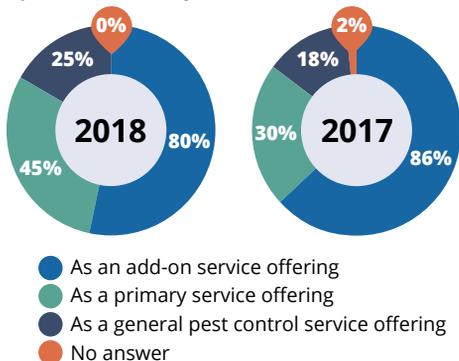
“I’m just convinced this is the way to package it,” said Ben Davenport, owner of Davenport Pest Management, Saint Charles, Mo. Bundled, it’s a good value and customers get better pest control results overall because technicians are at the house more frequently than for general

pest service, he said.

Mosquito control is “worth its weight in gold” as a way to convert customers to a more comprehensive program, he said.

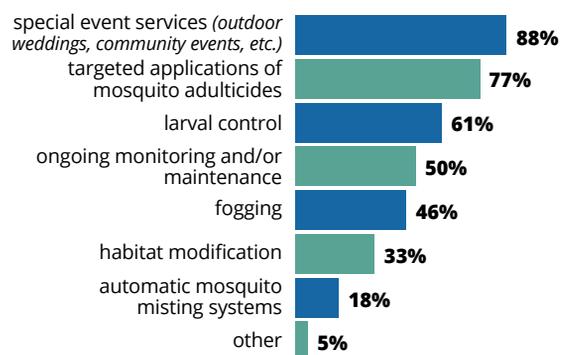
According to the survey, 88 percent of PMPs provide mosquito control service for special events (although this one-time work was less than 5 percent of mosquito revenue for 56 percent of respondents). Other services offered were targeted applications of mosquito adulticides (77 percent), larval control (61 percent), ongoing monitoring and maintenance (50 percent), fogging (46 percent), habitat modification (33 percent) and automatic mosquito misting systems (18 percent). ●

How do you offer mosquito control service?



Source: Readex Research; Multiple answers; Number of respondents offering mosquito control service: 128 in 2018; 123 in 2017

Types of mosquito control services offered:



Source: Readex Research; Multiple answers; Number of respondents offering mosquito control service: 128

THE PROTOCOL: IPM WORKS

Mosquito control service relies on integrated pest management: inspecting a property, reducing mosquito breeding sites, educating customers, applying a larvicide or insect growth regulator (IGR) where needed and an adulticide with a mist blower.

Nearly half (47 percent) of PMPs treat for mosquitoes every 30 to 35 days and most (80 percent) said the effectiveness of their service is better or much better than five years ago, found the PCT 2018 State of the Mosquito Control Market survey.

To get the upper hand early “we start out the season with the growth regulators,” applying them to breeding sites like gutters, said Jason Everitt of Rottler Pest & Lawn Solutions. Nearly three quarters (72 percent) of PMPs used an IGR as part of a mosquito treatment in the past year.

One third of PMPs said green products were increasingly valuable in mosquito control. Bradley Ulanowski of Termite King adds liquid garlic to his treatment mix, but not because customers want green pest control. Rather, “they can smell it” and this assures them the treatment is working, he said.

Weather remains a challenge. If you have a rainy season, some customers want you to re-do the service; other times, rain prevents you from doing the work and rescheduling can be difficult when you have 1,200 mosquito accounts a month, said Dayton Hylton of Dayton’s Pest Control Services.

“Drift is a huge issue” when it’s windy and “you don’t want (chemical) going over into the neighbor’s yard” and killing their koi or bees, said Steve Christensen of Fortress Termite and Pest Control. And “nobody loves to put on a respirator and long sleeves and a jacket when it’s 110 degrees outside,” admitted Ulanowski.

As such, some PMPs plan treatments four days of the week with the fifth day for weather make-ups. Mosquito season can run from March through November depending on weather and region. ●

Compared with five years ago, how do you rate the effectiveness of your mosquito control services?



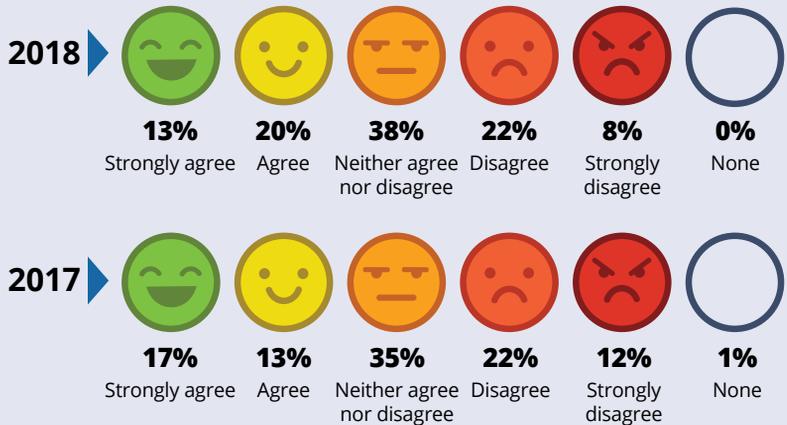
Source: Readex Research; Number of respondents who offered mosquito control services for at least five years: 87

Did your location use an insect growth regulator (IGR) in any of its mosquito treatments in the past year?



Source: Readex Research; Number of respondents offering mosquito control service: 128

Agree or Disagree: Green/natural products are becoming an increasingly valuable tool in our mosquito control efforts:



Source: Readex Research; Number of respondents offering mosquito control service in 2018:128; in 2017: 123



HOW TO REDUCE ADULT MOSQUITO EMERGENCE



Mosquito control is an important service for health concerns as well as personal comfort. Mosquitoes are well known for their itchy bites, annoying buzzing, and dangerous potential to transmit disease. The diseases they transmit are scary to many people and for good reason. The well-known Zika virus birth defects are a parent's worst nightmare and other diseases like West Nile virus can cause infections of the brain or spinal cord and even death. These circumstances aren't the norm, or even all that common, but it does happen and it is understandable that people want to minimize their risks. Pest management professionals help people reduce risks of these and other diseases and add a level of comfort to their customers' everyday lives by reducing mosquitoes in and around the areas where they live and work. Pest management professionals are improving people's lives and most of their customers love them for it (there's always that one though...you know who I'm talking about).

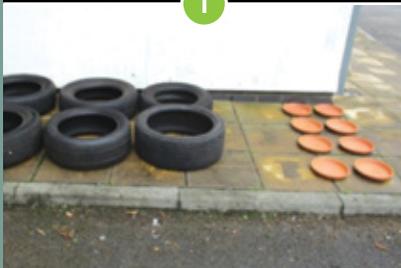
So, what is the latest information on mosquito control to reduce exposure and keep people more comfortable? It has to do with NyGuard® IGR, an insect growth regulator (IGR). An IGR can stop a mosquito population in its tracks. It prevents the larvae and pupae from becoming biting adults. It can also prevent adults from reproducing. It should be used with an adulticide to kill the current

population of adults and give immediate relief from their bites. However, 100% control is almost never realistic, especially given the flight distance of some mosquito species. They can enter a treated area from an untreated nearby location, either to lay eggs in a puddle or for a tasty meal. Applying NyGuard IGR enhances control efforts by leaving a long lasting preventative for larvae hatching into adults.

NyGuard IGR works at very low rates to inhibit emergence of adult mosquitoes. The inhibition of emergence is measured in parts per billion (ppb) to give you a sense of efficacy for the active ingredient. Some have been skeptical of the efficacy of residual so we decided to do a field test to see what would happen. We hired i2L, in the UK, to do the study for us. Tires and the water collection plates under flower pots (garland trays) were sprayed with NyGuard IGR, mixed at label rates, using a new backpack mister. The treated tires and garland trays were aged outside for 28 days, then water was added to simulate a rain event. Next, mosquito eggs were added.

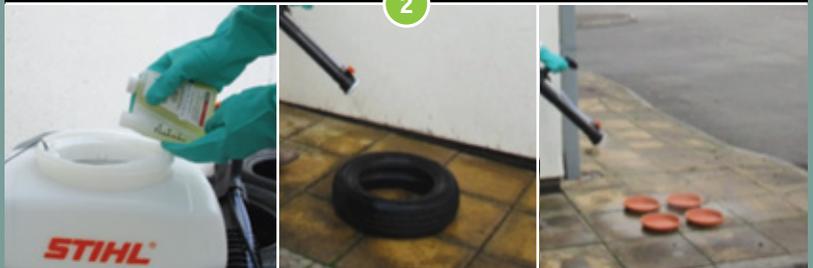
Tires and the water collection plates under flower pots (garland trays) were used for the study.

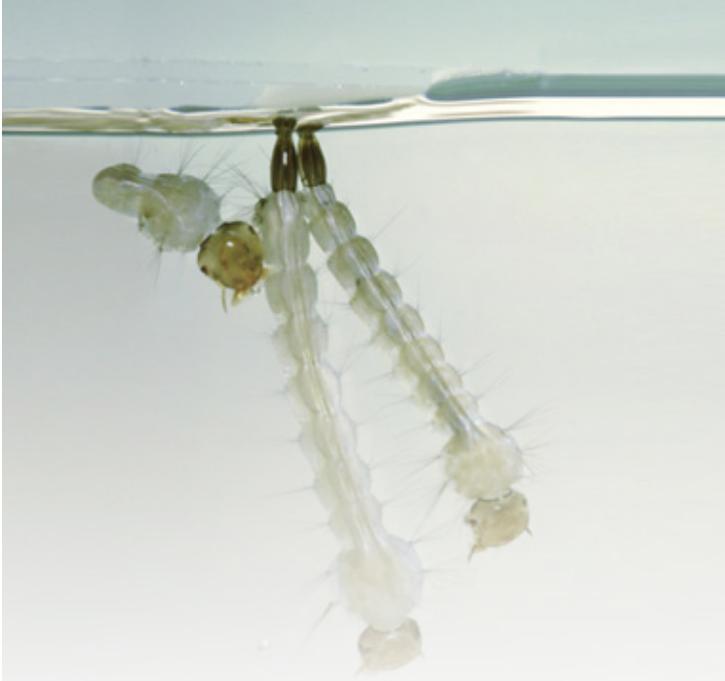
1



The tires and garland trays were then sprayed with NyGuard IGR, mixed at label rates, using a new backpack mister.

2





We then counted how many adults emerged from the water. Guess how many emerged? Zero! We of course had a control of untreated tires and trays and 80 to 90% emerged from those over a 26 day period.

What does that mean for you? It means that when you use NyGuard IGR to treat a surface like tires or ceramic pots that may be a breeding site for mosquitoes, the product will still work to prevent emergence of the biting adults for a long period of time. This is also true of areas that don't have standing water today, but will collect water after a rain event. Remember that although you may still see larvae and pupae in those breeding sites, they won't emerge into biting adults. Make sure your customer knows this too or they might worry if they see the wrigglers and tumblers (larvae and pupae).

Add some insurance to your mosquito treatments by insuring NyGuard IGR is part of your treatment protocol. You will be glad you did when you get fewer call backs, and your customers will appreciate it too.

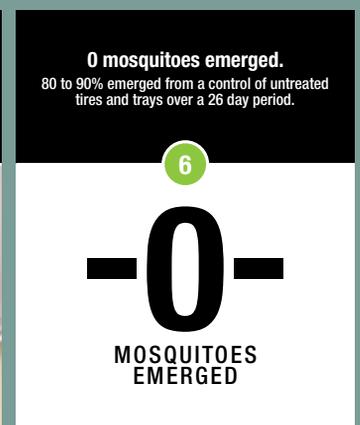
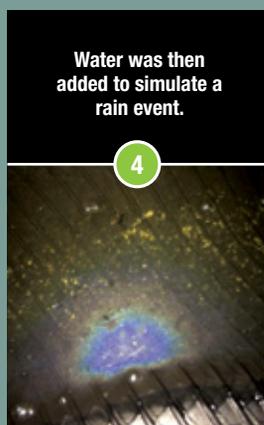


MGK® is unique in the insect control industry. For over 100 years, we have been a leader in the lab and in the field, developing innovative and effective products, including a broad portfolio of mosquito control products for residential, commercial, and equine structures.

NyGuard IGR breaks the cycle of insect reproduction, preventing mosquitoes from becoming biting, breeding adults.

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PARTNER WITH US TO GET THE RESULTS YOU NEED IN THE FIGHT AGAINST MOSQUITOES.



THE MOTIVATION: IT'S MIXED

Why do customers request mosquito control? Certainly a desire to enjoy their outdoor living space without being eaten alive by these nuisance pests is a prime motivation.

But mosquitoes' ability to vector disease is a growing concern, as well. In fact, 66 percent of PMPs believe customers understand the public health threat posed by mosquitoes, found the PCT 2018 State of the Mosquito Control Market survey.

Fear of Zika virus, in particular, had a significant impact on the growth of mosquito control revenue last year, reported 39 percent of PMPs. Most (88 percent) said media coverage of Zika virus will prompt more customers to seek professional mosquito control services.

"The media plays a huge role in our profession in driving customers to the PCOs," said Ben Davenport of Dav-



enport Pest Management. Media in his market report on river flooding, the potential for mosquito breeding and the diseases they carry. "I don't try to scare

people with that information; I let the media do it," he said.

Media coverage of local West Nile virus cases "will make the phones ring that much more," agreed Jason Everitt of Rottler Pest & Lawn Solutions. Still, "in the Midwest I think people are a little naïve" when it comes to the threat of mosquito-borne disease, he said.

Brian Reynolds, president of Reynolds Pest Management in Port St. Lucie, began offering mosquito control eight years ago when mosquito-borne Dengue fever and Chikungunya virus emerged in Florida. This turned out to be a minor issue just like the recent Zika scare, but "there's always the fear that you're going to get (a mosquito) that's going to bring in something really serious," he said.

Nearly three quarters (74 percent) of PMPs said the number of mosquito control requests increased in 2017 compared to the year prior. Half received calls for residential mosquito control service at least weekly; 38 percent had requests for commercial service at least monthly. Residential accounts made up the bulk of service for nearly all PMPs (98 percent), followed by commercial (73 percent) and government (16 percent) accounts. ●

Agree or Disagree: I believe customers understand the public health threat posed by mosquitoes:



Source: Readex Research; Number of respondents offering mosquito control service: 128

How often does your location receive requests for mosquito control services?

	Residential customers	Commercial customers
daily	20%	3%
weekly	30%	11%
monthly	32%	24%
less than monthly	16%	37%
never	1%	12%
no answer	1%	13%
At least weekly	50%	14%
At least monthly	82%	38%

Source: Readex Research; Number of respondents offering mosquito control service: 128



THE AD: AWARENESS WORKS

PMPs said they sell mosquito control services mostly to existing customers and so they focus marketing efforts here. No surprise, 70 percent of PMPs said word-of-mouth was the most effective way to promote the service, found the PCT 2018 State of the Mosquito Control Market survey.

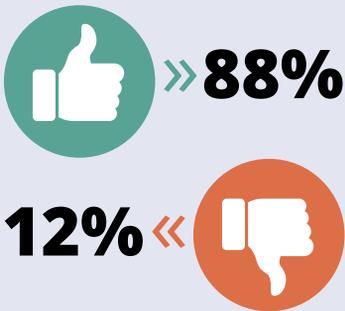
Online referrals generate terrific business for Fortress Termite and Pest Control. “Our customers here in Collierville have been extremely loyal to us and just phenomenal with their comments” on the ShopCollierville Facebook page, said PMP Steve Christensen.

Other effective means of promoting mosquito control included online advertising (46 percent), door hangers/cloverleafing (22 percent) and email marketing (22 percent).

Loyal Termite & Pest Control introduced a sales contest in March with incentives for technicians who upgrade customers to its bundled service. “A lot of time the service sells itself; you just have to let (customers) know we do it,” said Technical Director Bryan Vaughan. Dayton Hylton of Dayton’s Pest Control Services airs radio ads for mosquito control and at times has offered an initial mosquito control treatment for \$25 so clients can experience it.

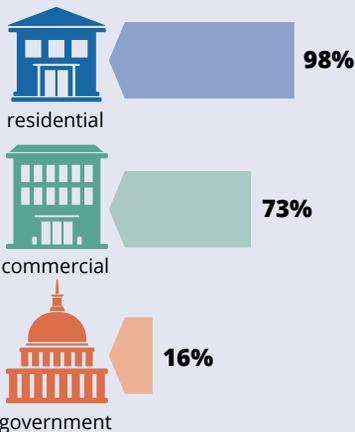
“If I had to start my company all over again, I would have poured actual marketing dollars into developing mosquito clientele” due to the ease of converting them to year-round, contractual services, said Ben Davenport of Davenport Pest Management. ●

Do you think media coverage of the Zika virus will prompt more customers to seek professional mosquito control services from your company?



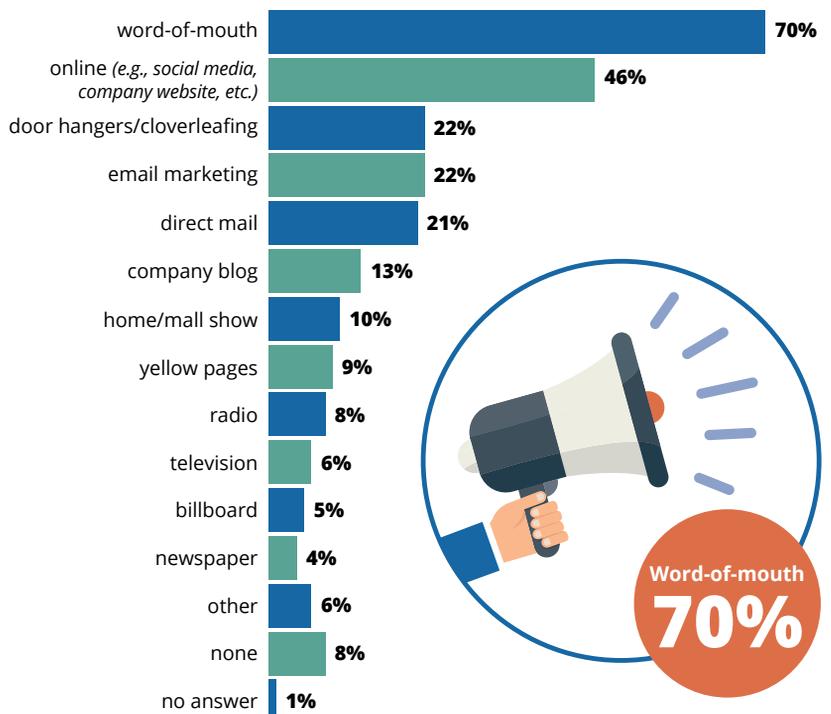
Source: Readex Research; Number of respondents offering mosquito control service: 128

Types of mosquito control service accounts:



Source: Readex Research; Multiple answers; number of respondents offering mosquito control services: 128

Types of advertising that is most effective in promoting mosquito services:



Source: Readex Research; Number of respondents offering mosquito control service: 128

THE CALLBACK: EDUCATING HELPS

The average callback rate for mosquito control service was 5.4 percent, found the PCT 2018 State of the Mosquito Control Market survey.

“Setting customer expectations for mosquito work is absolutely critical” to reduce this number, said Steve Christensen of Fortress Termite and Pest Control. At the initial service, he walks customers around the property, explains what he’s going to do, the results they can expect and how they can eliminate mosquito breeding sites. “If they can’t be home when they want us to do the service the first time, we won’t do it” until they can be, he said.

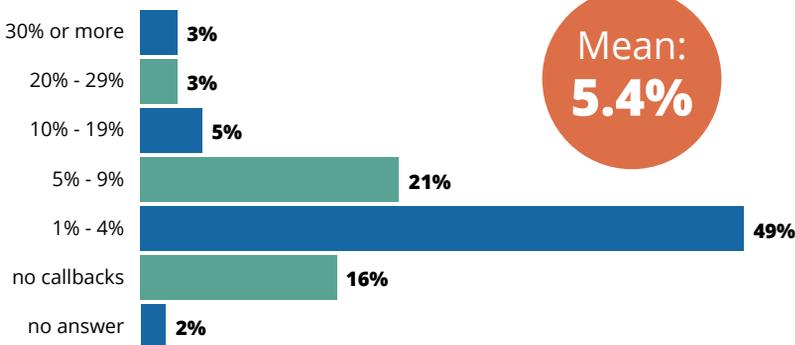
“We’ve found we’re more likely to get help from the residents if you physically take them out and show them” mosquito larvae in the water-filled pot before emptying it out, agreed Bryan Vaughan, technical director of Loyal Termite & Pest Control.

Sometimes retreatments are legitimate because “we missed something on the first visit or the pests are coming from the neighboring property,” acknowledged Dayton Hylton of Dayton’s Pest Control Services.

“You’ve got to look over the fence and see what’s going on,” said Christensen. Depending on the client-neighbor relationship, “we can go over there and knock on the door” to address the issue of the green kiddie pool, he said.

And you may have to cut a customer loose if she refuses to clean gutters that are sprouting trees and “breeding mosquitoes out the wazoo,” said Hylton, who this season is testing a controlled-release product that combines insecticide, synergist and IGR to help reduce his callback rate. ●

Typical callback rate for mosquito control services:



Source: Readex Research; Number of respondents offering mosquito control service: 128



THE EMPLOYEE: THREAT + OPPORTUNITY

“One of the most challenging aspects of this business” is finding good employees, said David Davis of Mosquito Squad of the Wiregrass, who “went through more employees last year than I did in the previous years combined.” One employee worked a day; a couple worked for four hours; one quit on Sunday night by text. As such, Davis had to stop advertising last year because he didn’t have people to do the work.

With local competition for workers at an all-time high, he may offer a bonus this year paid out at season end to attract and retain employees.

On the flip side, Dayton’s Pest Control Services has had success tapping local college students for seasonal mosquito work.

Not only do the students refer their friends but if interested they can continue training during the fall and winter and run a pest control route the following spring. “It’s worked into an entry level position” and “the ones that stayed with us have moved right up the ranks,” said Hylton.

According to the PCT 2018 State of the Mosquito Control Market survey, PMPs are confident their technicians understand mosquito control (84 percent), mosquito behavior (73 percent) and biology (59 percent).





THE FUTURE: LOOKING GOOD

According to the PCT 2018 State of the Mosquito Control Market survey, 79 percent of PMPs believe mosquito control presents a significant growth opportunity for their business. In fact, 78 percent expected revenue from this service to increase in 2018; the average anticipated increase was nearly 22 percent.

“We’re expecting a pretty big year,” confirmed Bryan Vaughan of Loyal Termite & Pest Control, which has invested in material and people as a result. Bradley Ulanowski of Termite King expected to “double what we did last year.” Rottler Pest & Lawn Solutions’ program is “only going to get bigger and bigger” this year given its new mosquito sales training, added Technical Director Jason Everitt.

Not everyone agreed: Brian Reynolds of Reynolds Pest Management didn’t expect growth even though South Florida has a

high risk for mosquito-vectored diseases. “The market isn’t as significant here because I believe the municipalities control (mosquitoes) very well,” and people don’t feel they need to hire a private service that costs \$70 a month, he explained.

Some said mosquito control has helped change people’s opinion of the industry. “This program has really pushed us into a consultant-type of position,” Everitt explained. “You’re not just the bug guy anymore,” agreed Steve Christensen of Fortress Termite and Pest Control. “You come with knowledge” and “a lot of times when we leave people will stop us and say, “Thank you for the education,” he said.

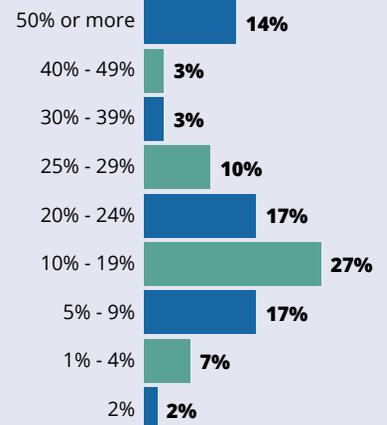
Wet, warm weather had many PMPs anticipating a busy season. “The mosquitoes have been horrendous here so far already,” said David Davis of Mosquito Squad of the Wiregrass, who started fielding mosquito calls in February. ●

Expected change in the percentage of mosquito control revenue:

	2018	2017	2016	2015	2014
increase	78%	76%	85%	65%	55%
remain the same	19%	21%	15%	32%	43%
decrease	2%	2%	0%	2%	1%
no answer	2%	1%	0%	1%	1%

2018 Number of respondents offering mosquito control services: 128
 2017 Number of respondents offering mosquito control services: 123
 2016 Number of respondents offering mosquito control services: 233
 2015 Number of respondents offering mosquito control services: 95
 2014 Number of respondents offering mosquito control services: 146

Expected increase in percentage of mosquito control revenue in 2018 compared to 2017:



Source: Readex Research; Number of respondents who anticipate revenue from mosquito control services to increase in 2018: 100



ABOUT THE SURVEY

The PCT 2018 State of the Mosquito Control Market survey was sponsored by MGK and compiled by Readex Research, a privately held research firm based in Stillwater, Minn.

A sample of 2,860 owners, operators and executives of pest control businesses was systematically selected from the PCT database. Data was collected from 235 respondents – an 8.2 percent response rate – via an online survey from February 5 to 16, 2018. Then, 107 respondents who indicated their companies do not offer mosquito control services were eliminated from the survey. The margin of error for percentages based on the remaining 128 respondents is plus or minus 8.5 percentage points at the 95 percent confidence level.

Charts may not add up to 100 because of rounding.



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*See label for pests controlled.



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