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# 2017 *State of the* COCKROACH MARKET REPORT

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Exclusive Market Research • Most Popular Treatment Strategies • Preventing Resistance  
Challenges Posed by Peridomestic Species • Reducing Callbacks • Cockroaches & Health Education

## Greetings from SYNGENTA,

With more than 4,000 species worldwide, cockroaches have proven to be some of the most difficult pests to control because of their ability to withstand tough conditions and adapt quickly to their environment. However, they do bring in significant revenue for most Pest Management Professionals (PMPs). In fact, cockroaches rank second to ants in generating the most service revenue nationwide, according to PMPs surveyed in this 2017 PCT State of the Cockroach Market report.

Research and discovery of new chemistries are paramount in the fight against cockroaches. With continued efforts in both regards, Syngenta is excited to add Advion® Evolution and Optigard® Cockroach Gel Baits to our high-performing portfolio of solutions for cockroach control. Offering customers enhanced bait matrices and differentiated active ingredients (a.i.s), these unique products can be used separately or rotated together as part of a cockroach control strategy.

Advion Evolution is the next step in control for Advion Cockroach gel bait users. While still featuring the proven performance of *indoxacarb*, the same a.i. found in Advion Cockroach, Advion Evolution offers a new, enhanced bait matrix that is highly attractive to cockroaches. This advanced formulation is designed to increase feeding by cockroaches, even in the toughest-to-control accounts.

Optigard Cockroach features a unique a.i., *emamectin benzoate*, which affects cockroaches at two different target sites, providing another tool to effectively control cockroaches while following good resistance management practices. Its unique formulation makes it an ideal partner for Advion Evolution as part of a year-long cockroach control strategy to control a wide range of cockroach species.

As a company committed to providing you with advanced cockroach control resources and support, Syngenta is proud to sponsor this year's State of the Cockroach Market report. Within this report, you can see the latest numbers and reports about the industry's cockroach treatment protocols, marketing efforts, techniques for managing aversion and more. You can also read about real-world stories from other PMPs to gain useful insights that can be applied to your business.

You won't back down from the challenge to control cockroaches, and neither will we. With our combined efforts and shared commitment to the industry, we're confident your customers will get peace of mind while your business experiences success in the fight against cockroaches.

### Nicky Gallagher

Field Technical Manager  
 Syngenta Professional Pest Management

For more information, visit [www.SyngentaPMP.com/CockroachSolutions](http://www.SyngentaPMP.com/CockroachSolutions)

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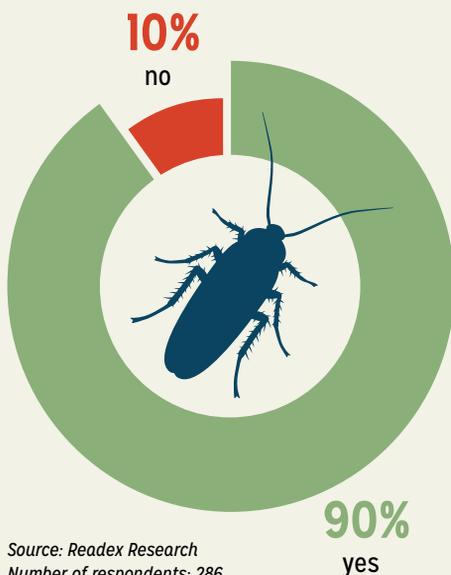
# State of the COCKROACH MARKET REPORT

**P**CT and Readex Research recently surveyed PMPs across the nation about cockroach pressure, revenue generation and treatment protocols. This annual report will help you see how your cockroach services compare, and offer you ideas you can put into action today.

However you might feel about cockroaches as a pest, you gotta love 'em as a steady source of business. Almost all (90 percent) of the PMPs we surveyed for this year's State of the Cockroach Market Report said they offer cockroach services; of those, 93 percent expect the percentage of revenue generated by these services to hold steady or rise in the coming year. A mere 5 percent look for this percentage to drop.

## 9 OF 10 PMPs Offer Cockroach Services

Does your company location offer cockroach control services?

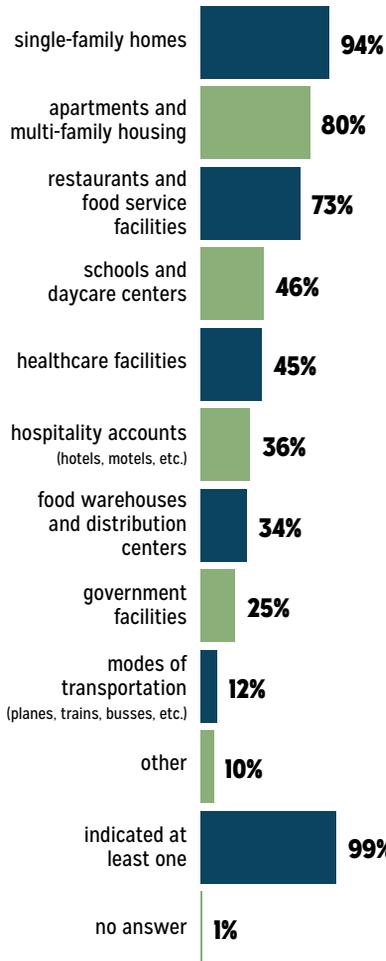


Source: Readex Research  
Number of respondents: 286



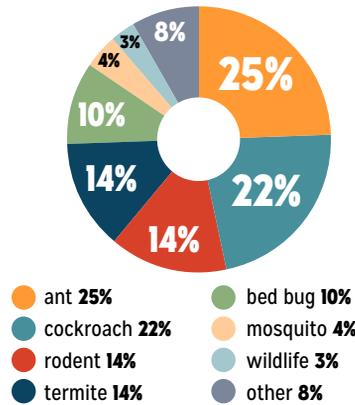
### Types of Accounts Generating Most Cockroach Business

For what types of accounts does your location provide cockroach control services?



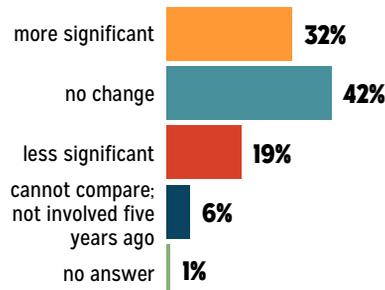
### An Important Driver of Overall Service Revenue

What percentage of your location's overall service revenue was generated from each of the following types of pest control services in 2016?



### An Essential Service Offering

In the past five years, have cockroach control services become a more or less significant portion of your location's business?



This confidence says a lot, given cockroaches account for 22.2 percent, on average, of overall revenues generated by these locations. Only ants hold higher ground, generating 24.6 percent of total revenues. Other pests trail these two heavy hitters substantially, with termites and rodents next in line at 14.3 and 14.0 percent, respectively, followed by bed bugs at 10.3.

Looking over the past five years, nearly a third (32 percent) of PMPs said that cockroach management has become a more significant portion of their business; another 42 percent said it has remained steady. Only 19 percent reported that these services make up a less significant portion of their business than over the past half-decade.

Most of the PMPs who offer cockroach services serve single-family homes (94 percent), and apartments and multi-family housing (80 percent). Almost three-fourths (73 percent) serve restaurants and other food service facilities. And fewer than half offer cockroach service in schools and daycare centers (46 percent), healthcare facilities (45 percent), hospitality accounts (36 percent), food warehouses and distribution centers (34 percent), and government facilities (25 percent). A handful of PMPs (12 percent) also offer services on planes, trains and buses. 🟢

Source: Readex Research | Number of respondents: 256



#### ABOUT THIS SURVEY

The survey sample was randomly selected from PCT's e-mail list of PMP owners/operators, executives, partners, and presidents. The survey was conducted by Readex Research, a third-party research firm, from April 26 to May 8, 2017, with 286 total responses – an 8.4 percent response rate. Thirty respondents were eliminated because they indicated they did not offer cockroach control services. The margin of error for percentages based on 256 respondents who indicated their company location offers cockroach control services is plus or minus 6 percent at the 95 percent confidence level. Results may not add up to 100 percent due to rounding.



# Treatment Protocols THAT PERFORM

Anyone who has ever dealt with cockroach control knows that there's much more to it than simply spraying baseboards or applying baits. Your successful program is dependent on your efforts to understand your options so that you can choose the best combination of products, educate your customers about the importance of sanitation, be vigilant about customer safety and the environment and have a clear sense of how, where and why to apply products.

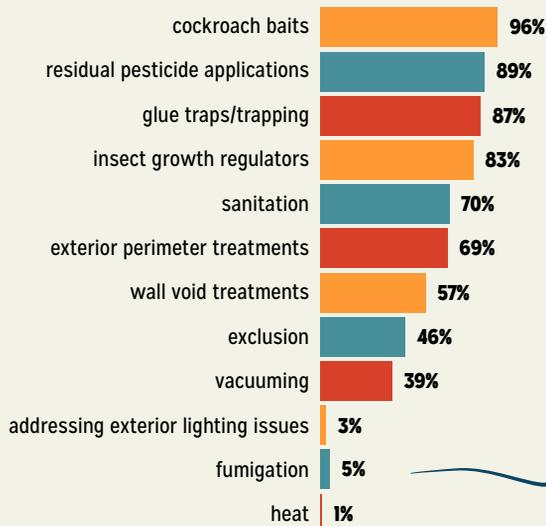
## Which Products Will You Choose?

Let's start with the basics. What do PMPs keep in their arsenals to battle cockroaches? The great majority put these four weapons into play: baits (96 percent use them), residual pesticide applications (89 percent), glue traps (87 percent) and insect growth regulators, or IGRs (83 percent). Nearly half (46 percent) of PMPs use baits as their primary means of control, while 28 percent rely most heavily on residual pesticide applications.

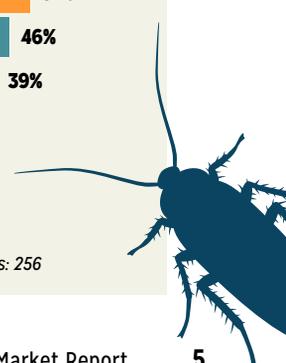
Scott Fisher of Scotty's Pest Control in Decatur, Ill., talks about how pesticide applications for cockroach control have changed over time: "Having been in this business for 38 years, I've seen pesticide usage change dramatically. Back when I was 18 and just starting out, we used to go to town with whatever chemicals were available to us. Pesticides today are much less toxic, but we are also much more thoughtful now about what

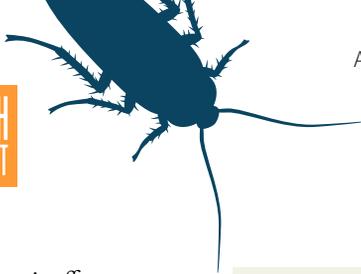
## Baits, Residuals Top Treatment Arsenal

What types of control measures does your location use to manage cockroaches in homes and/or businesses?



Source: Readex Research | Number of respondents: 256





we're using and how it affects our customers and the environment."

This conscientiousness has led to PMPs' focus on IPM measures, including holding customers to certain standards of cleanliness.

### Sanitation and Customer Education

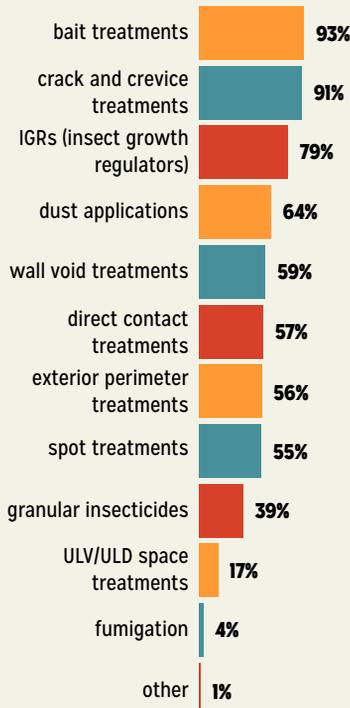
Fisher, whose market includes many low-income neighborhoods, says that his ongoing efforts to educate residential customers about sanitation are generally not well-received. "I tell homeowners and renters that sanitation is 90 percent of the solution," he says, "but this message often goes in one ear and out the other. You have to be very sensitive about how you deliver this message, too, because people get offended when you are in essence telling them that their homes are dirty."

These same homes characteristically have structural issues conducive to cockroach infestations as well, Fisher continues. "Leaky pipes, drain issues, cracked foundations and flooding caused by this year's heavy rains make matters worse for residents in our service area, as American and Oriental cockroaches move in," he shares. "But again, residents often don't like hearing the truth. In one instance where the customer wasn't at home when I treated, I left a note explaining that rags don't stop leaks. He discontinued his service, saying it was 'because of your notes.'"

Jason Derrer of Raptor Pest Control in South Lake Tahoe, Calif., takes a firm stand on sanitation as well. He works with his restaurant-owner clientele to develop sanitation plans. "We make it clear that they need to follow certain sanitation protocols," he says. "If they aren't willing, or don't have the time to clean up their operations, we offer to do it for them. Degreasing, exclusion, equipment replacement — we never say, 'That's not my job.' If we can legally do it and we know it will help, then we do it. On one job, we pulled out all of the equipment, steam cleaned it outside, and then brought it back in and reinstalled it.

### Pesticide Applications Run the Gamut

What types of pesticide applications are part of your location's cockroach control protocol?



Source: Readex Research  
Number of respondents: 256

It took three days, but we got rid of the cockroaches and the sanitation issues."

Another nonchemical approach to cockroaches is heat. Not many PMPs incorporate heat as a control method (only 1 percent), likely due to the intensive labor and relatively high costs associated with heat treatment. But Gerald Holt of Holt Pest Control in Tarpon Springs, Fla., says that heat is the best choice when faced with heavy infestations of German cockroaches, particularly in situations where the customer wants quick knockdown and prefers a non-chemical solution.

"All insects are susceptible to heat; German cockroaches possibly more so than others. Heating a kitchen to 130

or 140 degrees Fahrenheit kills the cockroaches and, importantly, all of the eggs within about 40 minutes," says Holt. He emphasizes the importance of taking the time to prepare the space, covering all openings to ensure the room is sealed off. Otherwise, you may not be able to reach and sustain the appropriate temperature.

### Popular Treatment Options

While baits and crack-and-crevice treatments continue to be the leading types of pesticide applications (93 and 91 percent, respectively), another is coming up quickly in the ranks, with a 5 percent year-over-year increase: IGRs. Now used in pesticide applications by 79 percent of PMPs, insect growth regulators are earning praise far and wide for their sterilization capabilities.

"I don't understand why IGRs aren't used in every operation for every cockroach infestation," says Doug Bremer of Red Zone Pest Defense in Surprise, Ariz. "I consider IGRs essential to control, because they limit the proliferation of populations. Whether we're treating inside or outside, we combine an IGR with whatever material we're using. It's worth the added investment; we would be doing our customers a disservice if we didn't use it."

Derrer swears by IGRs, too. "We typically use an IGR in combination with a contact insecticide in addition to focusing on environmental controls," he says. "Glue traps help us determine how well the IGRs are working over time, and help us identify where the cockroaches are coming from so we can either step up our efforts or know that we're gaining control."

### How Often Is Enough?

Effective cockroach management means never letting them get ahead of you. That's why more than half (54 percent) of PMPs treat monthly. Another 15 percent treat bi-monthly, and almost a quarter (23 percent) treat quarterly. Only 2 percent rely on annual inspections. 🍀

They know a lot about flavor.



Over time, cockroaches develop more refined tastes. That's why it's important to keep your menu fresh. With Advion® Evolution Cockroach Gel Bait, you'll have a bait that's proven to increase both feeding and speed of kill.

It's just the mix to attract even the toughest roaches.

Learn more about Advion Evolution and enter for your chance to win a trip to college football's biggest game by October 31 at [SyngentaPMP.com/CockroachSolutions](http://SyngentaPMP.com/CockroachSolutions)



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# How Proactivity Is REDUCING CALLBACKS and RESISTANCE

There was a time when resistance was a real threat to cockroach management. Cockroaches are well-known for developing physiological, as well as behavioral, resistance. But armed with knowledge and a broad range of product choices, PMPs today are equipped to prevent resistance issues; they know that taking precautions like rotating pesticides can nip resistance in the bud and minimize callbacks.

The proof? While about half (54 percent) of PMPs surveyed in 2017 said they believe cockroach resistance is a concern in their market area, only 2 percent consider it a serious, diffi-

cult-to-manage problem (see charts on page 10). Forty-two percent said that resistance is a problem, but a manageable one; 56 percent said they seldom or never encounter cockroach resistance.

These results go hand-in-hand with the callback rates reported by PMPs. Nearly half (48 percent) reported callbacks at 2 percent or less. Only 16 percent said that their callback rate is 10 percent or higher. The national average for callbacks is just over 5 percent.

This is likely because more than three-fourths of PMPs (76 percent) proactively implement resistance strategies into their cockroach treatment protocols. Of those,

nearly all (94 percent) rotate baits to ensure populations don't become resistant.

By making sure their technicians understand the need for resistance protocols and training them in the appropriate steps to follow, PMPs are confident in their resistance strategies. Eighty-one percent of respondents said they have full confidence that their technicians are following their company's protocol. Another 18 percent have some level of confidence that their teams are adhering to the protocols necessary for preventing resistance. As with any type of pest control, solid training is key to successful results. *Continued on page 10.*



They're quick learners.



Cockroaches can develop resistance to single active ingredients over time. Now, Optigard® Cockroach Gel Bait introduces a unique active ingredient, *emamectin benzoate*, giving them a challenge they haven't seen before.

So when you rotate it with Advion® Evolution Cockroach Gel Bait or Advion® Cockroach Gel Bait, you'll outsmart even the brightest cockroaches.

Learn more about Optigard Cockroach Gel Bait and enter for your chance to win a trip to college football's biggest game by October 31 at [SyngentaPMP.com/CockroachSolutions](http://SyngentaPMP.com/CockroachSolutions)

 **Optigard® Cockroach**  
Gel Bait

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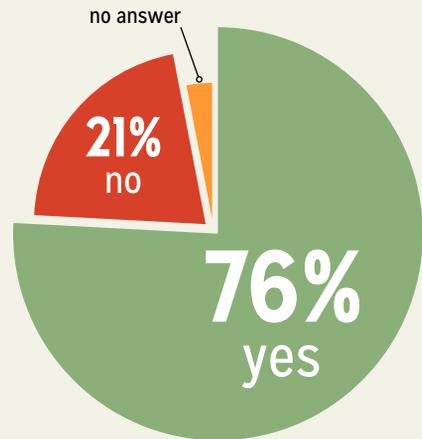
### Resistance a Concern for More Than Half of Pest Management Professionals ...

Do you think cockroach resistance is a concern in your market area?



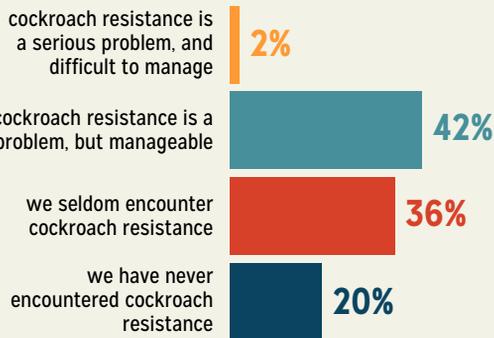
### 3 of 4 PMPs Implementing Resistance Strategies

Has your location implemented cockroach resistance strategies into its treatment protocol?



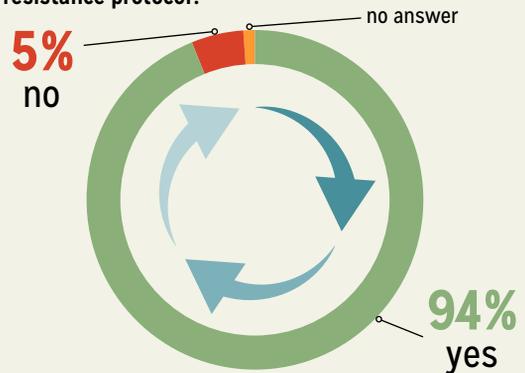
### ... But Most Believe It's a Manageable Problem

How would you characterize your location's experience with cockroach resistance in your market area?



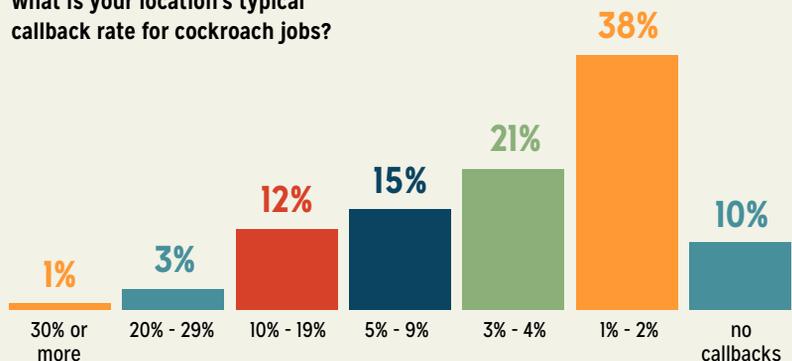
### Regular Bait Rotation Key Part of Treatment Protocols

Is bait rotation a part of your location's cockroach resistance protocol?



### Callback Rates Vary

What is your location's typical callback rate for cockroach jobs?



Source: Readex Research  
Number of respondents: 256

# COCKROACHES and HEALTH EDUCATION



One of the most startling facts we know about cockroaches is that their presence in homes can contribute to childhood asthma and other breathing problems, as well as a variety of health issues. Unfortunately, few of your customers probably know about this dangerous linkage. Are you educating them about their children's (and their own) safety?

"I ask all of my cockroach customers with families, 'Do your kids have breathing problems? Maybe asthma?' If they say yes, as they often do, I tell them that the cockroaches are most likely causing their symptoms," says Scott Fisher, whose company, Scotty's Pest Control, serves several impoverished areas. "I impress upon them the critical nature of cleaning up the dead cockroaches and keeping their homes clean. Many of them don't listen, though — they won't even sweep the floor of the insect bodies. So their children are harmed in two ways: first, they continue to be subjected to the allergens, and second, they become desensitized to their environment and never learn the importance of sanitation to their health and well-being."

About half of PMP survey respondents said that customers inquire about the role of cockroaches in childhood asthma often (5 percent) or sometimes (46 percent). Forty-seven percent are never asked. This gives PMPs and technicians the opportunity to proactively broach the topic. Just over half (56 percent) of PMPs said that their representatives are doing that right now.

How do you start the conversation about the relationship between cockroaches and childhood asthma and other health issues with customers? Sharing these eye-opening facts might help:

Cockroaches are known to spread 33 kinds of bacteria, including *E. coli* and *Salmonella* species, six types of parasitic worms and seven kinds of human pathogens.<sup>1</sup>

The saliva, droppings and decomposing bodies of cockroaches contain allergen proteins known to trigger allergy and asthma symptoms, especially in children.<sup>1</sup> Symptoms may include coughing, nasal congestion, skin rashes, wheezing, and ear or sinus infections.

Sixty-three percent of homes in the U.S. contain cockroaches and their particles. In urban areas, that number rises to 78 to 98 percent of homes.<sup>2</sup>

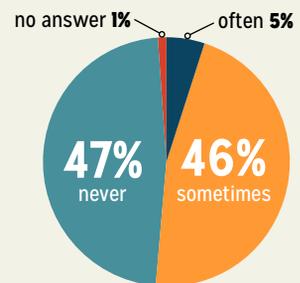
Asthma is one of America's most common diseases. It has no cure but can be managed through preventive efforts like eliminating cockroaches.<sup>2</sup> 🌱

<sup>1</sup>National Pest Management Association (NPMA)

<sup>2</sup>Asthma and Allergy Foundation of America (AAFA)

## Cockroaches Role in Childhood Asthma

How often do your location's customers inquire about the role of cockroaches in the onset of childhood asthma?



## Pro-Active Communications Helps Drive Awareness

Does your location proactively inform its customers of the role cockroaches have in the onset of childhood asthma?



Source: Readex Research  
Number of respondents: 256

# The Unique Challenges of PERIDOMESTIC SPECIES

Whitney Cranshaw, Bugwood.org

When the term “cockroach” comes up in conversation, the average person thinks of German cockroaches and their kitchen invasions. But PMPs know that outdoor dwellers can also invade homes and businesses. These peridomestic species — American, Asian, Oriental, Surinam, Turkestan, smokybrown and wood cockroaches, for example — present their own challenges.

“Here in Florida, although we do treat German cockroaches, most of our cockroach issues are American and wood roaches coming in from the outdoors,” says Holt Pest Control’s Gerald Holt. “We also get calls to control the Asian cockroaches that invade lakefront properties where there’s a lot of leaf litter from cypress trees.”

While we know that peridomestic species most often present challenges for PMPs in the South, Southeast, Gulf Coast and West, where the climate is conducive to these pests, 74 percent of PMPs nationwide reported that peridomestic control services have remained steady or increased as a percentage of their business over the past five years.

Holt says that peridomestic pressure is fairly steady in his market, with definite cyclical patterns. “They’re driven inside when weather conditions are extreme: very wet or very dry,” he explains, adding that, while indoor cockroaches are predictable — most often heading for unsanitary conditions — peridomestic species are occasional invaders. “It’s important to educate customers about their behaviors so they understand that seeing one in the house doesn’t mean their home is infested.”

What’s the best way to treat outdoor cockroaches? Holt uses granules and liquids as perimeter and spot treatments, since he’s found baits to be in-

effective with peridomestics. Treatment begins with a thorough inspection, he says, suggesting that technicians take a good look around mulched areas, trees and leaf litter, in addition to the structure of the building, where cracks and holes can serve as entry points. Also remember to check dumpsters and trash cans.

“Once you determine how they’re getting in, you can apply exclusion measures, minimize harborage and treat wherever it’s appropriate,” Holt concludes. “We can eliminate most of them, but there’s always that possibility of a stray invader now and then due to changes in the weather.”

## Peridomestic Cockroaches a Growing Problem

Has peridomestic (outdoor-dwelling) cockroach control become a more or less significant portion of your location's business in the past five years?

Source: Readex Research  
Number of respondents: 256

