

A Letter from Steve Levy

President & CEO, Bell Laboratories

t Bell, our mission is focused on you — our valued customers. We direct our efforts in bringing you the highest-quality rodenticides and rodent control products to meet your evolving needs. Whether that is a rat infestation at a commercial property, a severe mouse problem in a single-family home, or a wide-scale conservation project — we are continually problem-solving the industry's toughest rodent problems with custom and professional solutions.

This year, we developed two new rodent control products to tackle specific needs in the industry. When discreet and professional trapping is required, PMPs can turn to the new Trapper Hidden Kill Mouse Trap. This new mousetrap was designed to upgrade the unsightly kill of outdated wood traps. It is engineered with a fully enclosed capture area that keeps the trapped mouse hidden inside. By eliminating the open-kill, your customers will appreciate the discretion, enhancing your reputation as a professional service-provider. Through the use of advanced assembly robotics, we are able to offer the Hidden Kill at an exceptional value. Bell is also proud to add the newly registered P.C.Q. PRO to our line-up of rodenticides. With the active ingredient Diphacinone, P.C.Q. PRO is approved for burrow baiting meadow and pine voles; P.C.Q. PRO is an invaluable tool for PMPs to enhance service offerings at accounts with damaging vole infestations.

We also work to enhance the industry's image as vital to public and environmental health. We are continuing to participate in world-class conservation efforts around the globe that aim to reduce invasive rodent species. A recent finding that points to this success is our work on the Galápagos Archipelago. Three years after a successful aerial bait drop, the island is showing

signs of recovery in the form of newly hatched Pinzón Giant Tortoises — the first in over 150 years.

At Bell, every effort is made to provide great rodent control solutions to our customers, and continue our good work in the ongoing fight against rodents. All of us at Bell appreciate your business and support and wish you the best in 2017.



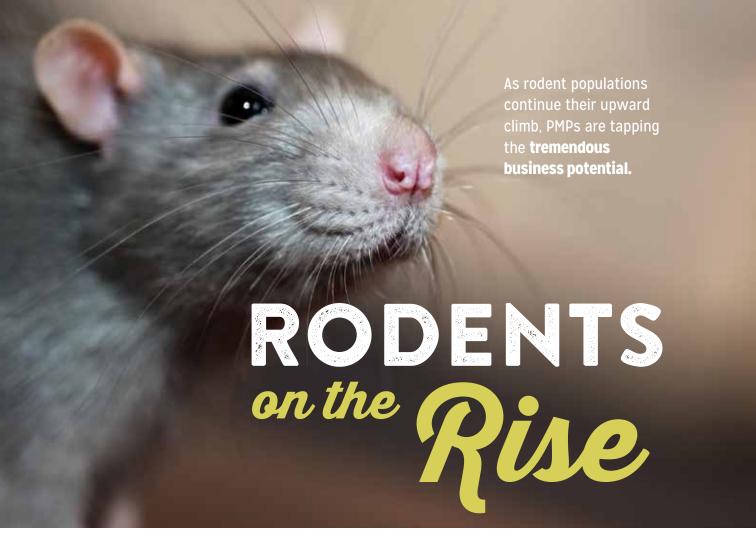






P.C.Q. PRO

Trapper Hidden Kill Mouse Trap



o the public, a rodent population boom is a horrifying thought. Watch people shudder as they talk about the rats in their city streets or cringe as they report suspected mice in their attic. Lucky for them, you have the tools to manage the issue. And lucky for you, rodent momentum can be an opportunity to attract new customers, diversify your service offerings and generate additional revenue.

Unfortunately, there is no census for rodent populations: We don't know exactly how many more roof rats exist today compared with a year ago or how many voles are running rampant in backyards across America. But we hear the stories. And through our research, including the 2016 State of the Rodent Market study conducted by PCT and Readex Research, we see trends in PMPs' reports that confirm rodent populations are on the rise.

Urban rodentologist Bobby Corrigan agrees. "The people I talk to in cities around the world all say the same thing: Rodent populations have been growing for the past eight to 10 years, and seasonal fluctuations are disappearing," he says. "Rodents are a prolific, year-round pest whether you're in the United States or in India."

Why the population boom? Corrigan points to the onetwo punch of warming weather trends and aggressive urban growth. Here's what we know about each of these phenomena.

Weather Trends Advantageous

As 2016 continues to set global heat records (according to NASA), and remains on track to be the hottest year in the modern temperature record (1880-present), PMPs are changing the way they prepare for rodent season. In fact, many of them (21 percent, according to the survey) report no longer having a rodent season, as business evens out across the year.

"Over the past five years, we've noticed that we don't see the big winter surge in mouse calls we've historically experienced," says Gerry Marsh of Patton Termite and Pest in Wichita, Kan. "Our winters have gone from harsh to fair, with more precipitation than we used to get. The result has been steady business over all four seasons."

What do warmer winters have to do with it? Norway rats, for example, don't breed at all in regions with severe winters, Corrigan said. "When cold winters set in, rodents dedicate all of their resources, all of their energy, to generating heat to keep themselves warm," he said. "Milder winters mean (that rodents) can re-channel those resources, increase their survivability rates, and have greater chances for starting litters earlier and possibly squeezing in another litter before the cooler weather begins. At eight to 12 rats per litter, populations grow quickly."

Other weather conditions play a role, too. "A few years ago, THIS ARTICLE CONTINUES ON PAGE 6





Revenue Potential Trends Upward

The population momentum of rodents can mean great opportunities for the pest management industry, but are PMPs taking full advantage? Many are, say results of the 2016 PCT State of the Rodent Market survey.

When asked what portion of their revenue was generated by rodent control services last year, 27 percent of participating PMPs said at least one-fifth. While this is only a slight rise from the 2015 study, 2016 results reflect a telling fluctuation on the other end of the scale: Less than a third (32 percent) of PMPs said that rodent revenues account for less than 10 percent of their revenues; last year that number was 43 percent. This 11-percent change indicates that rodent control is becoming a larger revenue generator for many PMPs across the nation. On average, rodent services make up about 15 percent of overall revenues.

Asked whether rodent control has become a more significant portion of their business over the past five years, 49 percent said yes. That's up 4 percent over last year's study and 5 percent over our 2014 study. Reinforcing this trend: Only 3 percent of all 2016 respondents said rodent control is a less significant portion of their business; this compares to 5 percent in 2015.

Perhaps most important in the analysis of the increasing potential of rodent services work is PMPs' optimism about its role in the future. A hefty 60 percent of survey respondents look for revenues from rodent services to increase in the next year; only 2 percent expect these revenues to decrease.

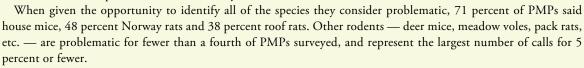
Rodent Control Driving Revenue Increasingly Important Service Offering What percentage of your location's overall 2015 service revenue was generated by rodent control services? In the past five years has rodent control become a more significant, less significant, or 30% or more neither more nor less significant portion of your 20% - 29% location's business? Number of responses: 336 Readex Research, Summer 2016 17% 15% - 19% 4.5% cannot compare; not 10% - 14% 21% significant involved 5 years ago 3% 17% 5% - 9% less than 5% 15% more significant don't know 49% Mean: 2016 no answer 15.1% 43.5% none 0% Number of responses: 336 neither more 3.5% nor less cannot less significant **PMPs Anticipate Growth** significant compare; not involved 5 How do you expect the percentage of revenue generated 5% years ago from your location's rodent control services to change in the next year? Number of responses: 336 2016 2015 2015 44.5% 60% increase 55% increase 47% remain remain the same the same neither more nor 2% decrease 3% decrease less significant / significant 1% no answer 0% no answer



House Mouse Continues to Reign

Although urban rats undoubtedly get the most press due to their visibility and sheer numbers, the stealthy house mouse continues to be the bread and butter of most PMPs' rodent services business. Nearly half (49 percent) of PMPs told PCT through the rodent market survey that house mice account for the largest percentage of their service calls over the past year. Almost as many (40 percent) said that mouse infestations have increased in their markets over the past year.

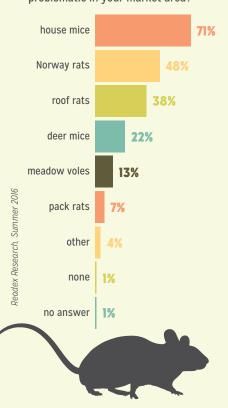
As for rats, 28 percent of respondents named roof rats and 11 percent Norway rats as the rodents that accounted for the largest percentage of their service calls over the past year. Thirty percent reported a greater number of roof rat infestations, and 27 percent increased Norway rat infestations.





Most Problematic Rodent Species

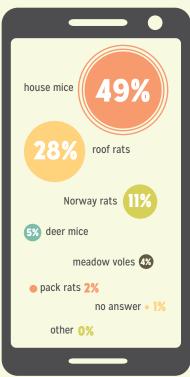
What rodent species tend to be problematic in your market area?



Number of responses: 336: Respondents could select more than one answer

House Mice Top Service Calls

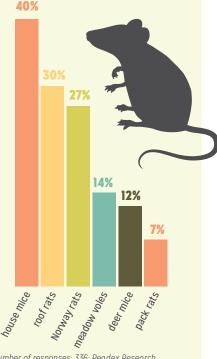
What rodent species represented the largest percentage of your location's service calls in the past year?



Number of responses: 336

House Mice On The Rise

Over the past year, have the number of rodent infestations in your location's market area increased. decreased or remained the same for each of these rodent species? (answers are from PMPs who reported an increase)



Number of responses: 336; Readex Research, Summer 2016; Respondents could select more



CONTINUED FROM PAGE 3

extreme drought conditions brought rodents into homes and businesses here to search for water," says Steve Myrick of Bluebonnet Pest Control in Arlington, Texas. "Then this year became one of Arlington's wettest years on record; the wet conditions have really boosted populations. We stocked up on rodent bait this summer to get us through winter, but we had used almost all of it by mid-September."

Corrigan recommends preparing for rodent control services by researching your regional weather forecasts. "In general, I suggest being prepared year-round for rodents, but also keep in mind that floods, drought, precipitation and other factors in your regional climate play a role in the level of activity you'll see."

If You Build Up, They Will Come

America's cities continue to grow. And where people live, rodents follow. It's not the people themselves these animals are attracted to, of course; it's our food and the various kinds of junk piles we create — in other words, our overall garbage. The morsels we leave in the street, the vegetation we allow to overgrow, and the trash can lids we unwittingly leave askew provide ample nourishment and cover for these clever mammals.

Corrigan cites an "incredible explosion" of rodents in the Northeast megalopolis — the region extending from Boston to Washington, D.C., and including New York City, Philadelphia and Baltimore in between — over the past decade. Other U.S. cities can be added to the rodent-infested list as well. In fact, a recent report by Animal Planet ranks six U.S. cities among the 10 "Worst Rat Cities in the World": Atlanta, New Orleans, Chicago, Baltimore, Boston and New York. And in April, USA Today reported that Chicago residents' reports of rodent activity were up 70 percent for the first quarter of 2016 over the same time period last year.

"After 75 years of doing the same thing — putting out baits and hoping for the best — municipalities are realizing that rodent management deserves more thorough consideration," says Corrigan. "New York, for example, has invested \$5 million in the Rat Reservoirs program, which looks at rodent control from a more scientific perspective. Programs like this and the Vancouver Rat Project [run by researchers at the University of British Columbia's School of Population and Public Health], are moving the focus from killing rodent offspring to managing populations for the longer term."

In the immediate term, PMPs of infested urban areas have their work cut out for them. For example, in Seattle, which may be, according to data released by the U.S. Census Bureau last year, the rattiest city in the country, Kurt Treftz does his

best to stay a step ahead of the rampant "ratification" of his market.

"When I started Cascade Pest Control in 1979, carpenter ants were our primary pest, but rats were also of concern. They like the mild weather and lakes, streams, marshland and greenbelt areas of Seattle, plus the dead crabs, shellfish and seaweed that wash up onto our saltwater beaches," says Treftz. "In the 1990s, rats took over our No. 1 spot, and they've held on to that spot, as Norway and roof rat populations here have become pandemic. Urban sprawl has residential neighborhoods touching urban environments, which leads rat populations to intermingle; the proliferation is continuous, and the situation is severe. Today, as much as 80 percent of our business is rodents."

Treftz adds that some of the worst rat infestations occur in high-end neighborhoods, like Mercer Island, which has the fifth highest per capita income in the state of Washington.

"Before greater Seattle became a metropolis, rodents didn't spread as quickly, because they tended to stay in old parts of the city and along waterfronts," he explains. "But continuous human activity has created ready food sources that attract rat populations. Garbage cans, pet food and bird feeders are enough to keep rodent populations well-fed, and they move back and forth from one yard or house to another. Even if an entire block of homes is doing all the right things to keep rodents away, they can still have rat populations surrounding their block. Maintaining control is an ongoing challenge."

Corrigan does the math: "If you have a dozen rats on a block, and each of them is eating one to three ounces of food every day, that's a pound or more of food that's being left out. Where are they getting all of that food? Someone — a neighbor or grocery store, for example — is not being careful with their trash. We have to keep reminding them of these four critical words: 'Sanitation is pest control.'"







TRAINING

ent Animal Is a Whole



or an operation like Patton Termite & Pest, where 90 percent of business is insect control, training technicians to manage rodents can be challenging. General Manager Gerry Marsh explains, "Rodent jobs require the technicians to change gears and slow down to make sure they do a good job on the inspection — looking at every nook and cranny to find evidence of gnawing and droppings, putting traps and bait stations in the right places, and remembering safety precautions, like locking and anchoring the bait stations, to protect customers from rodenticide exposure."

Marsh's concerns are echoed by many PCT survey respondents. When asked which areas of rodent control their technicians need to better understand, these PMPs put baiting strategies (45 percent), exclusion (42 percent), trapping strategies (38 percent) and inspection (37 percent) at the top of their lists. Rodent biology came in at No. 5, but it's at the

top of Sheri Spencer Bachman's list.

The owner and president of Spencer Pest Services begins by educating the company's Service Pros about rodent biology. "We discuss their habits, habitat and reproductive capabilities, along with how to identify males and females, what to do with that alpha male you can't seem to trap, and so on," she says. Spencer Bachman's program, which incorporates online, classroom and field training, often with the support of manufacturers' representatives, also covers the importance of knowing how and where to place glueboards, snap traps and bait stations, as well as safety training for exclusion.

"We teach ladder, harness and roof safety, and emphasize the importance of using respirators where appropriate," she says. "We're serious about safety and never want our technicians to put themselves at risk by trying to get by with faulty equipment or taking other chances. We strive to prepare them for every scenario."

Areas Technicians Need to Better Understand

Which of these areas of rodent control do you feel your location's technicians need to better understand?



Number of responses: 336; Readex Research, Summer 2016; Respondents could select more than one answer

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