

# PMP

Pest Management  
Professional



## THE BUSINESS THEATER



**CONTROLLING  
BED BUGS**  
AT COMMERCIAL  
ACCOUNTS  
CAN KEEP PMPs  
ON THE EDGE OF  
THEIR SEATS

# THE BUSINESS THEATER



## CONTROLLING BED BUGS AT COMMERCIAL ACCOUNTS CAN KEEP PMPs ON THE EDGE OF THEIR SEATS

By Heather Gooch  
PMP Editor-in-Chief

**W**hen the industry trains on bed bug management, the assumption usually is that treatment is being conducted in a bedroom — perhaps a single-family residence, but often a multi-family apartment complex because *Cimex lectularius* populations tend to spread from unit to unit. “Bedrooms” also can be found in nursing homes, dorms, hospitals and the like. But when you take mattresses and bedframes out of the equation, bed bugs can still find their way to bloodmeals at nearly any account.

Dr. Angela Sierras, a research scientist and lab manager at the University of Kentucky, Lexington, notes that “non-sleeping” accounts for bed bugs can be a challenge from inspection to treatment, and beyond. Because of the secrecy many accounts demand for an infestation so as to not bring down their reputations, the physical presence of a technician inspecting the premises can set off the rumor mill.

“In many cases, not every employee is going to be aware the inspection was supposed to take place, and of course their first instinct is to ask what the technician is doing,” she says. “Sometimes, technicians have been instructed not to disclose to employees or other building occupants that a bed bug inspection is occurring. Or the opposite happens: The employees are made aware and that sets off a huge panic.”

Dan Baldwin, BCE, REHS/RS, CCFS, CP-FS is not only vice president of technical and training services for Ogden, Utah-based Hawx Pest Services, he also is a frequent contributor to *Pest Management Professional* (PMP). Previously in his career, he served as a senior food safety scientist for Yum! Brands, which owns Taco Bell and KFC, among others, and director of technical, training and regulatory services for Terminix Commercial before Terminix merged with Rentokil. Upon reflection on challenging environments in which to treat

bed bugs, he says movie theaters are tops by a mile. The reasons are many, including:

► **Multiple layers of construction** — “There are the flat-black colored sound-absorbing materials, decorative features, and of course, the seats themselves, both individually and collectively,” Baldwin explains.

► **Odor overkill** — Forget about using a bed bug sniffing dog, he says. “All the smells of food, body odors, perfumes, colognes, and the high-flow air handlers are just too much” for even the best-trained K9 to reliably pick up a bed bug scent.

► **Blowers suck** — After each screening, many theaters instruct their workers to use handheld blowers to move all the detritus toward the front of the house — the individual “theaters” are called houses — so they can more efficiently sweep up the trash. “They’re basically blowing bed bugs from one end to the other,” Baldwin quips.

Dr. Shannon Sked, BCE, PCQUI, SQF, the director of Western Fumigation, Philadelphia, Pa., has carried out several studies on bed bug behavior in the field. While it’s not as common to encounter bed bugs in non-sleeping areas, he notes bed bug populations can thrive even where no “overnight food sources” exist.

“By nature, and under normal conditions, bed bugs are nocturnal animals, with peak food-seeking activity from about



midnight to 5 a.m.," Dr. Sked says, adding there always are occasional exceptions. "Other than those times, they spend their lives in cryptic harborage where they carry out their other biological functions such as reproduction, digestion, etc."

When it comes to an office or movie theater, for example, Dr. Sked says, bed bugs are happy to work out their feeding schedule to coincide when people are around. In one study, the results of which he presented last November at the National Pest Management Association's Pests & Public Health Summit in San Antonio, Texas, he said he and the team assumed that in such "non-traditional" locations, bed bugs would be everywhere, wandering around in search of food. This was not the case, he reports.

"What we found was a very high level of aggregation," Dr. Sked continues. "This allowed for control to be accomplished with limited treatments."

## Inspection challenges

Dr. Coby Schal, the Blanton J. Whitmire Distinguished Professor at North Carolina State University in Raleigh, has focused much of his bed bug research on residential accounts. For nursing homes and other medical facilities, he says, while the bed in the room is a focal point for inspection, it should not be the only one.

"Bed bugs can harbor in medical equipment that we can't just flip over and apply formulations that we might use some distance away near a wall," he points out. "Often, this requires help from nurses and other health professionals to figure out what we can and cannot do."

Prisons are another commercial account where there are beds, and therefore a risk of bed bugs. Dr. Schal says his two biggest challenges

with treating a prison have been the limited access to parts of the cell block, and the unpredictable level of cooperation from inmates.

But by far, Dr. Schal says, his most challenging bed bug infestations take place in poultry farms. It's a common account type for him, as well, as he notes poultry is the No. 1 agricultural industry in the Tar Heel State, at \$39.8 billion. North Carolina is ranked No. 2 nationally in turkey production and No. 3 in poultry production.



Dr. Coby Schal

"An average poultry farm might have four to eight houses with 20,000 chickens per house, and each house can be infested with literally millions of bed bugs," Dr. Schal

explains. Most of these houses are not insulated well enough for success with heat treatment. In addition, many pesticides labeled for these facilities are intended for chicken ectoparasites, not bed bugs, and thus have lower efficacy.

"It's a major challenge to keep bed bugs from biting workers and hitchhiking to their homes," he says. "This is a growing problem with few solutions in sight."

## There is no normal

Western's Dr. Sked notes there has been a lot of research on what is attractive to bed bugs. For example, color studies have found that the bugs tend to gravitate to black and red. But, he adds, this is never a definite with the pest, especially when dealing with stressed populations without lots of opportunities for bloodmeals. An unusual harborage might cause them to "act in ways that otherwise would not be normal," he says.

The level of infestation also plays a role in how dispersed or aggregated a bed bug population might be, he says. "As a rule of thumb, in very high infestation

levels, they will exploit any and all harborage — including locations that would not be typical."

Chris Millward can attest to this. The co-owner of Richmond, Texas-based Bugco Pest Control has seen a lot of unusual bed bug accounts in his 15-year career, including doctor's offices, cinema seats, kidney dialysis centers and even pawn shops.



Chris Millward

"We treated several local pawn shops for general pests, and during a routine visit, I noticed a single bed bug crawling on an antique table lamp that had just come in," he recalls. "The lamp hadn't been processed and tagged yet, so it was resting on a pile of other items that were brought in. I was so used to treating for cockroaches and rats that it surprised me."

For a dentist office account, Millward was called in because the hygienist who was preparing the dental chair for the next patient recognized the bug that was crawling along the seat's armrest. "She only knew because she had dealt with bed bugs," he points out.

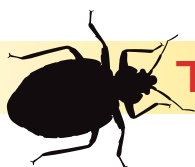
## Holy surprise

Jocelyn McDonald, owner of Arm'd Pest Control in Presque Isle, Maine, says once you see a single bed bug in an unusual capacity, it's difficult to know how far infestations have spread. She recalls a church where the pastor and his wife lived in a cluttered home nearby, where they fostered several children for short periods. Because so many individuals were going in and out of the home, from social workers to congregants, it didn't take long before the bed bug issues inside the home found their way to the church and its facilities.



Jocelyn McDonald

*Continued on page 36*



*Continued from page 35*

Millward also found himself treating a church as a result of treating a longtime client's home for bed bugs, who referred him to a friend with bed bugs, who referred him to a third friend. The common denominator was they all sat near one another for Sunday services.

"The pews had seat cushions on them and sure enough, in one corner of one pew, I found bed bug eggs," he recalls.

## Walking a fine line

Hawx's Baldwin stresses that, after gathering firsthand information from employees who have been experiencing pest issues, try to inspect when the facility is closed so you can take as much time as necessary to conduct a thorough inspection. If that's not an option, he says, "at least try for a time

where there's going to be the fewest amount of people there."

Dr. Sierras from the University of Kentucky agrees, but points out there can be a silver lining to having employees available during inspections, too: "Sometimes having access to the employees who observed the problem helps us gather information on what they have seen and where they saw it."

While you should be transparent about a bed bug infestation to the account's employees and customers, it's important to "read the room" about how cooperative management is going to be.

Try to tread lightly, at least at first, Baldwin says. "Remember, management has to try to gather information discreetly, and you should avoid asking too many probing questions that may make

employees feel like they are being blamed for the problem."

Baldwin recalls an office campus account where there were reports of bed bugs long before he and his team could locate evidence of them. They finally traced them to a horrified employee who was inadvertently bringing the pests from home and had been suffering in silence.

When word got out that the bed bug rumor was true, the situation was further complicated by a co-worker with symptoms of delusional parasitosis (DP), experiencing encounters with pests that do not exist.

"She was convinced they were in her cubicle. They weren't," Baldwin states. "She proceeded to use heavy-duty cleaners on

*Continued on page 38*



Dan Baldwin

# NIBOR-D® INSECTICIDE NOW AVAILABLE IN ONE-POUND BAGS

The versatile, effective insecticide dust is now available in convenient, 1-lb bags that make it easier to use than ever!

Use **Nibor-D** as a:

- Drain foam and mop solution
- Dust in areas you would normally flush
- Liquid formulation for general pests



CONTACT YOUR NISUS REPRESENTATIVE FOR MORE INFORMATION



800.264.0870 | [WWW.NISUSCORP.COM](http://WWW.NISUSCORP.COM) | REMEMBER TO ALWAYS READ, UNDERSTAND AND COMPLY WITH THE LABEL | #PMP-ND-HP-0823  
NIBOR-D AND NISUS ARE REGISTERED TRADEMARKS OF NISUS CORPORATION. ©2023 NISUS CORPORATION





# **SureKill®**

One Brand. Endless Protection.

*Three Active Ingredients.  
Two Concentrates.  
One Brand. Endless Protection.*



## The Countdown to Control Is On!

- Specialized active percentages for various infestation and treatment needs
- Flushing action and quick knockdown
- Dual-synergized pyrethrin insecticides formulated with petroleum distillates
- Ideal for indoor use in commercial buildings, homes, hotels, restaurants, schools, and other listed areas



800.621.8829 (USA/Canada) • 859.254.1221

© Neogen Corporation, 2023. Neogen and SureKill are registered trademarks of Neogen Corporation. All rights reserved.



*Continued from page 36*

all her cubicle's surfaces, which caused skin irritation, and then went home every day and took showers with hot water. This further irritated her skin and convinced her even more of a reaction from bed bug bites. It took a lot of doing, but we finally convinced her the problem was gone — long after it already had been eliminated."

Dr. Sked advises to include the account's human resources, legal and other departments within the organization as applicable to ensure everyone is on the same page.

"In one study we did, there was already a union complaint in place and lots of discussion on potential lawsuits," he reports. "Because of this, the account's management had their legal team directly involved with all correspondence,

including questions for employees to help determine where the issues may have originated and how they could support those employees in finding a solution there, which in turn would help them with the solution at the workplace."

Dr. Sked said monitoring and documentation are key. With the tendency of bed bugs without a bloodmeal to aggregate in great numbers, you can focus on where they are concentrated for treatment. Monitoring will tell you whether you eliminated the problem or it moved elsewhere.

"With careful monitoring and target treatments, we were able to remove a persistent, two-year-long bed bug problem within a couple weeks," Dr. Sked reports.



Dr. Shannon Sked

Bugco's Millward says he advises all his clients who are visiting nurses to change their clothes between patient stops, placing the previous uniform in a sealed plastic bag to go into the laundry as soon as they get home.

"It's reduced a lot of hitchhiking bed bugs," he points out, noting he gives similar advice to caretakers of people who attend adult daycare centers.

Most of all, McDonald says, don't forget about yourself.

"I had one catch on my shirt when I was flipping a mattress at an account," she recalls. "I didn't notice until I was in my vehicle. It just proves how easily it can happen." **PMP**

**Gooch** can be reached at [hgooch@northcoastmedia.net](mailto:hgooch@northcoastmedia.net) or 330-321-9754.



## Start with the Insect First.

**Save time and money with our insect monitoring technology and make the right decisions after early detection.**

We create our pheromone monitoring technology based on science.

Research has confirmed, Insects Limited's pheromone products are of the highest quality. **We prove it with every product.**



FIND YOUR SOLUTION NOW.

[WWW.INSECTSLIMITED.COM/STORE](http://WWW.INSECTSLIMITED.COM/STORE)  
(317) 896-9300

*Science, Education, Innovation, and Quality Products are the pillars making Insects Limited a leader in pheromone technology.*





**Vector**<sup>®</sup>  
BY CATCHMASTER<sup>®</sup>

# FLY TRAPS EVOLVED

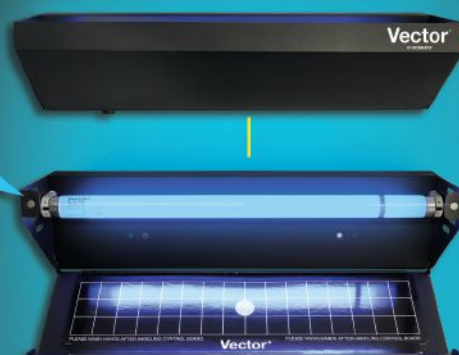
Introducing our Lethally Discreet Smart Design Revolution!

**NEW**

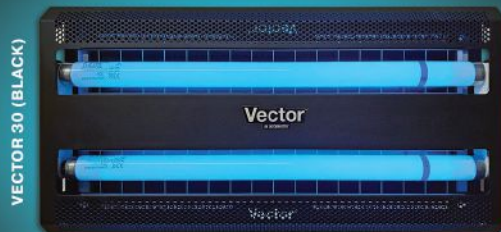
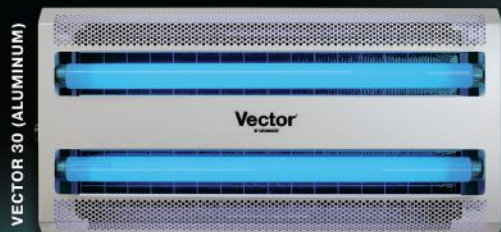
**VECTOR OPTIMA**  
– White –



**VECTOR OPTIMA**  
– Matte Black –



**MAGNETIC CLOSURE**

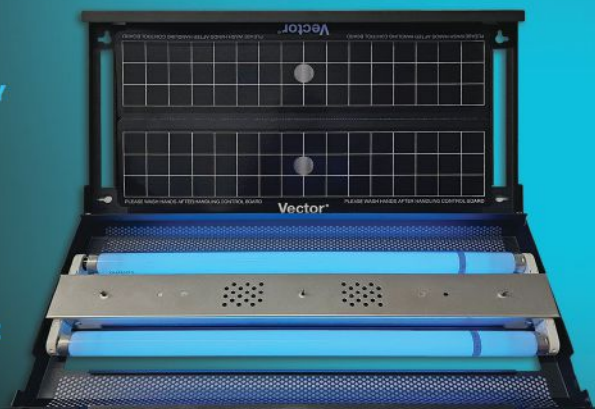


**1 YEAR WARRANTY**



**SNAP LOCK CLOSURE**

**VECTOR 30**  
– Aluminum & Matte Black –



## EASY TO INSTALL & SERVICE

- Mounting brackets provide for easy installation
- Front opening allows for easy inspection and maintenance

## DISCREET

Sleek and smart design, keeps insects hidden. Perfect for in-front of house use.  
Black matte finish provides high contrast for increased efficacy and maximum attraction

## UNIVERSAL

- All units use one Universal Vector 907 Glue board, making it easy to keep stock.