

A Better Way to Beat Bed Bugs

Why Every Hotel Needs a 3-Pronged Bed Bug Strategy

ECOLAB[®]

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The Bed Bug Risk Isn't Slowing Down

Bed Bugs are the tiniest – yet biggest – pest risks in the lodging industry, and increasingly one of the largest business risks for hotels overall. Virtually eradicated in North America a few decades ago, bed bugs have come roaring back. Reports suggest bed bug incidents increased by a shocking 4,500% in the early 2000s¹, and statistics from the National Pest Management Association show bed bug incidents continue increasing around 10% annually.² The lodging industry bears the brunt of the bed bug surge, with a study published in the Journal of the National Academic of the Sciences finding that at least 80% of hotels had been treated for bed bug incidents in the previous 12 months.³

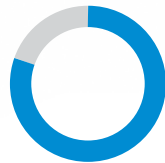
Bed bugs are crawling through guests' minds – and the stakes are higher than ever

A recent study found that 3 in 4 hotel guests actively inspect their mattresses for bed bugs when they arrive.⁴ It's clear that bed bugs are a top concern on guests' minds, and it's no mystery why. Increasing media coverage of hotel bed bug incidents is boosting awareness, and a 2020 survey estimated that 1 in 5 Americans has either directly experienced a bed bug incident or knows someone who has.⁵ Hotels have little margin for error when it comes to delivering exceptional guest experiences. Most are recovering from low occupancy and revenue losses from the COVID-19 pandemic – and all hotels are facing higher guest expectations and heightened sensitivities around the cleanliness, health and safety of their rooms and spaces.



10%

Annual increase
in bed bug
incidents⁶



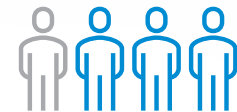
80%

of hotels
have treated
for bed bugs in
the last year⁷



1 in 5

Americans have
been directly
impacted by bed
bugs – or knows
someone who has⁸



3 in 4

hotel guests inspect
their mattresses
for bed bugs⁹

1. <https://www.nytimes.com/2020/06/29/well/live/coronavirus-bedbugs.html>

2. National Pest Management Association statistics

3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6462087/>

4. Bed Bugs in America Survey

5. <https://www.nytimes.com/2020/06/29/well/live/coronavirus-bedbugs.html>

6. National Pest Management Association statistics

7. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6462087/>

8. <https://www.nytimes.com/2020/06/29/well/live/coronavirus-bedbugs.html>

9. Bed Bugs in America Survey



Bed Bug Costs Keep Increasing

It's not just the incidence of bed bugs that's keeping hotel operators up at night; the continual increase in costs do as well. Estimates suggest a single bed bug incident can cost up to \$6,000¹⁰ – between replacing furniture and linens, bed bug removal treatment, and lost revenue from short-term room downtime and long-term reputation damage. Bed bug incidents easily go viral on social media, with research suggesting that a single social media post about a bed bug incident could end up costing a hotel \$38 per room, per night – for an indefinite period.¹¹ On top of those costs, more and more lodging businesses are facing litigation relating to bed bug incidents. One report on bed bug litigation in lodging estimated that around half of all hotels have already faced some kind of bed bug litigation – with average costs nearing \$20,000.¹²



A single
bed bug **incident**
can cost up to
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A **social media** post
about bed bugs can
decrease room rates by
\$38 per
night¹⁴



Half of all hotels
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10. The Bantam Group

11. <https://uknow.uky.edu/campus-news/uk-research-bed-bugs-bite-wallet-hotel-owners>

12. The Bantam Group

13. The Bantam Group

14. <https://uknow.uky.edu/campus-news/uk-research-bed-bugs-bite-wallet-hotel-owners>

15. The Bantam Group



There Is No Silver Bullet For Bed Bugs

Hotel operators are well aware of the risks presented by bed bugs. They know they need to put tools and protocols in place to protect their guests and their business against these tiny invaders. It's tempting to look for a single solution to bed bugs – a shortcut or “silver bullet.” But the reality is that there are many tools in the bed bug mitigation toolkit, and each has its advantages and challenges. Science-based best practice uses an integrated approach, featuring a three-pronged strategy of inspection, treatment and prevention tools that are specifically tailored to fit your property-specific challenges and needs.

The rest of this ebook will cover each of these three key areas, detailing available options and outlining the advantages and challenges of each.

The 3-Pronged Bed Bug Strategy

1**INSPECTION**

Tools and protocols to spot bed bugs – before guests do.

2**TREATMENT**

Solutions for rapid, reliable and cost-effective removal of bed bugs.

3**PREVENTION**

Tools and tactics to proactively mitigate bed bug risk.



1 Inspection

Tools and protocols to spot bed bugs – before guests do.

The obvious first step in a bed bug program is to do everything you can to identify bed bug issues as early and discreetly as possible. But how do you spot these tiny, reclusive creatures?



VISUAL INSPECTION

Housekeeping staff – or pest management providers (PMPs) – visually inspect guest rooms at regular intervals for signs of bed bug activity.

Advantages

- ✓ Easiest to implement
- ✓ Can be done during regular housekeeping workflows
- ✓ Generally very cost-effective if handled by housekeeping staff

Challenges

- ✗ Training housekeeping staff to know what to look for
- ✗ Ensuring housekeeping staff are consistently inspecting
- ✗ Inspections are limited by room access



CANINE INSPECTION

Service providers bring specially trained dogs into guest rooms to help detect signs of bed bug activity.

Advantages

- ✓ Can be time-efficient and accurate if conducted by a high-performing handler
- ✓ Scent detection can catch issues that visual inspection may miss

Challenges

- ✗ Highly variable accuracy – anywhere from 30-80% – largely dependent on training
- ✗ Environmental factors can decrease accuracy
- ✗ Not as good at detecting early-stage infestations
- ✗ Difficult to distinguish new vs. old bed bug activity

16. 2014 Bed Bug Summit

Inspection Challenges in the Post-Pandemic Era

Even before the COVID-19 pandemic, both guests and hotel operators were increasingly opting for the environmental and sustainability benefits of less-frequent housekeeping services for occupied rooms. In the wake of the COVID-19 pandemic, many hotels continue to follow policies of not entering occupied rooms for in-stay housekeeping. On top of that, while occupancy rates are still recovering, trends suggest longer average guest stays – meaning rooms go longer between housekeeping service. All of these factors present limitations on the frequency of visual (or canine) room inspections.



2 Treatment

Solutions for rapid, reliable and cost-effective removal of bed bugs.

Choosing the right mix of inspection protocols will help you catch bed bug issues before guests do. But however you're alerted to a problem, how well do you rapidly address and eliminate bed bugs?



CHEMICAL TREATMENT

Products that use an active chemical ingredient to kill bed bugs.

Advantages

- ✓ Includes both contact and residual treatments
- ✓ Typically fast and easy to apply to harborage areas
- ✓ Generally very cost-effective to use
- ✓ Can be applied proactively due to residual properties

Challenges

- ✗ Can be unsafe and damaging if not used according to exact label instructions. Some products may damage certain surfaces or materials, and can cause health & safety risks for guests and staff
- ✗ Most chemical treatments are "spot treatments" – not comprehensive and can't fully eliminate bed bugs
- ✗ Regulatory concerns – some products are not approved for use in certain regions because of health & safety concerns



BIOCHEMICAL TREATMENT

Products that use an active biochemical ingredient to kill bed bugs.

Advantages

- ✓ Demonstrated efficacy against pesticide-resistant bed bugs
- ✓ Low toxicity to people and pets
- ✓ Can be used in cluttered or small spaces

Challenges

- ✗ Specialized application equipment and unique product handling requirements may add to cost of service
- ✗ Must be applied at least quarterly
- ✗ Long time-to-kill – bed bugs may wander (visible to guests) for up to a week after exposure





Treatment (Cont.)

Solutions for rapid, reliable and cost-effective removal of bed bugs.



NON-CHEMICAL TREATMENT

Treatments including conventional fumigation, whole-room heat and thermal enclosure treatments.

Advantages

- ✓ Can deliver comprehensive, whole-room treatment and provide elimination of all bed bug life stages
- ✓ Can effectively treat soft goods (where chemical products are ineffective) without damaging / causing premature wear
- ✓ Effective against pesticide-resistant bed bugs

Challenges

- ✗ Very disruptive – generally requires room(s) to be taken offline for multiple days
- ✗ Indiscreet – may alert guests of a problem
- ✗ Generally more cost – and time-intensive – requires trained & experienced professional application to be effective
- ✗ Response times can vary depending on Pest Management Provider

17. <https://academic.oup.com/ae/article/63/2/79/3867364>



Mobile Thermal Enclosures Make Rapid Non-Chemical Treatment More Accessible

Advances in thermal enclosure technology make comprehensive non-chemical treatment even faster and more broadly available to hotels in any region. For hotels not close to major markets, new mobile thermal enclosures can be deployed to rapidly treat and get impacted rooms back online in 1-2 days – without damaging mattresses and other room furniture.

More than
One-third
of all bed bug expenses come from furniture replacement¹⁷



3 Prevention

Tools and tactics to proactively mitigate bed bug risk.



MATTRESS ENCASEMENTS

Advantages

- ✓ Proactively protects your biggest guest room investments (mattress)
- ✓ Upfront cost offset by long-term savings of not replacing mattress and box spring
- ✓ Can speed treatment/reduce room downtime in the event of an issue (not having to replace mattress)

Challenges

- ✗ Must be properly installed and maintained in order to be effective
- ✗ Product integrity/effectiveness varies widely between brands
- ✗ Protection limited to the mattress – headboard, furniture, carpeting, etc. all remain vulnerable to bed bug infestation



PROACTIVE RESIDUAL TREATMENTS

Advantages

- ✓ Low-cost, easy application protocols
- ✓ Proactively repels and kills bed bugs in all life stages
- ✓ Considered safe for guests and approved for use in the US and most regions of North America

Challenges

- ✗ Room prep required and rooms will need to be reset for occupancy after treatment
- ✗ Requires regular re-application – can be a challenge with high occupancy
- ✗ Local legislative restrictions remain in some areas of North America

18. <https://www.pestworld.org/news-hub/press-releases/pest-control-professionals-see-summer-spike-in-bed-bug-calls/pest-control-professionals-see-summer-spike-in-bed-bug-calls/>

Digital Tracking & Treatment Rotation Maximizes Room Availabilities

Leading Pest Management Providers are now leveraging digital reporting tools and data-driven room-rotation strategies to ensure that every room is inspected and treated on a regular basis. Digital room tracking helps eliminate errors of manual tracking, while minimizing the impact on room availability.

Most travelers
say they would have a
higher opinion
of a hotel that had proactive
bed bug prevention¹⁸



Best Practices: Building a 3-Pronged Comprehensive Bed Bug Program

As you can see from reviewing the wide range of tools and tactics available to help hotels fight bed bugs, there is no single solution. The proven, science-backed best practice is to use a three-pronged approach: the right inspection tools to catch issues before guests do; the right combination of treatment tools to rapidly and effectively address any issues that do arise; and effective prevention tools upfront to mitigate risk wherever possible.

However, just as there is no single bed bug solution, there's also no one-size-fits-all formula for building a comprehensive bed bug mitigation program. For example, the right inspection strategy for your hotel will depend on specific room occupancy patterns and housekeeping operational cost concerns. Likewise, the right treatment toolkit will depend on the size of an identified issue, the risk of the spread, the specifics of room furniture and materials, and your local regulatory requirements.

Leaning on a trusted pest management provider

It's no surprise that the complexity of bed bug mitigation seems daunting to many hotel operators. After all, pest management isn't your expertise – and you have an entire hotel business to run. That's why savvy hotel operators are increasingly leaning on expert pest management providers (PMPs) to build a customized, science-based bed bug program – and deliver a wide range of value to their business:

PMP DIFFERENTIATORS What to look for in a pest management provider		
Staff Training Leading PMPs can provide dedicated training and self-service education resources to help your housekeeping staff understand how to reliably spot the signs of bed bug activity in guests rooms during their everyday room-cleaning protocols.	Comprehensive Treatment Options Quality pest management providers should be able to provide a full portfolio of chemical and non-chemical treatment options – and tailor the treatment approach to fit the specific issue/risk while minimizing the impact in terms of cost and room downtime.	Data-Driven Insights Best-in-class PMPs are now using advanced data analytics to pull together service report data on bed bug activity, identify concerning patterns and trends in real-time, and drive more targeted, efficient and effective bed bug mitigation strategies.



Start building a comprehensive bed bug program today

For more information about how ecolab can help your property, Visit: ecolab.com/bedbugs

About Ecolab Pest Elimination

Ecolab is the global leader in water, hygiene and infection prevention solutions and services. Every day, we help make the world cleaner, safer and healthier - protecting people and vital resources.

Bed Bugs have become one of the most challenging pests in the hospitality industry. While there is no way to prevent bed bugs from entering your facility on people or personal belongings, a single infestation can put your brand at risk. The serious nature of bed bug infestations and the financial consequences of bed bugs mandate a thorough approach. Getting rid of bed bugs is a challenge, but Ecolab can help. Partner with Ecolab Pest Elimination to help protect your brand, guests and employees.

