

# CaseStudies



## Cutting-Edge Research... Proven to Work!

- "Totally astonishing."
- "Massive die-off of bedbugs."
- "Groundbreaking.Revolutionary"

### Aprehend<sup>®</sup> Case Study – Eradication of bed bugs in a vacant apartment



Witt Pest Management, Pittsburgh, PA Adam Witt, President

#### Abstract

Landlord use of "bug bombs" led to a 6-month, widespread infestation resulting in the tenant fleeing the apartment. Witt Pest Management treated the unoccupied dwelling using their Integrated Treatment for Bedbugs (ITB) program and achieved success using Aprehend<sup>®</sup> in preference to heat treatment or conventional chemicals.

#### Background

Witt Pest Management was called in by the family of their special needs daughter who resided in a one-bedroom apartment of a multi-unit building to assess a bed bug infestation she had been enduring for at least six months. The building management had conducted a number of inferior, but all too common, self-treatment measures, including the use of the dreaded "bug-bombs," the total release indoor foggers that misguided DIY landlords and tenants often employ without considering professional assistance. The infestation persisted, and the tenant recently vacated the premises leaving the apartment empty, confounding the situation even further.

Witt began by investigating the affected apartment, finding hundreds if not thousands of dead bed bugs (Figure 1) yet many live ones and mounds of casings resembling saw dust around the bed frames. Bed bugs were found to be widely distributed throughout the apartment, most likely due to the careless use of bug bombs, which had even been re-deployed by the management that morning. Surprisingly no signs of bed bug activity were detected in surrounding units.



Figure 1: Signs of the infestation!

Witt arrived days later to begin their ITB-ECO program, modeled after their Integrated Treatment for Bedbugs (ITB) program, utilizing Aprehend<sup>®</sup> as their primary product supplemented by CimeXa<sup>®</sup> dust and intercepting devices. The bed, box spring and frame had been disposed of and unbeknownst to Witt, the family had enlisted a cleaning company that performed "extreme" prep, bagging almost all remaining belongings, vacuuming and sanitizing.



Figure 2 - Applying the 2" Aprehend<sup>®</sup> barrier above the baseboard.

Witt Pest Management applied Aprehend<sup>®</sup> as barriers around all remaining furniture, along the top of baseboards (Figure 2), around wooden moldings of doors and window frames and on the wall around electrical outlets in the bedroom, living room and interior hall way of the apartment.

Due to the concern of both displaced and embedded bugs as a result of the 3 factors (DIY treatment, no host, and the excessive preparation), SenSci<sup>™</sup> traps were placed in the bedroom (4) and living room (6) to draw bed bugs back in. The apartment remained vacant for another week because the tenant was so traumatized by the bed bug infestation.

#### Achieving results in an empty unit

As with all bed bug products, Aprehend<sup>®</sup> works best in an occupied apartment, where human activity lures the bed bugs out of their harborages in search of a blood meal. Witt Pest Management was interested to see how effective their treatment would be in the absence of a human lure.

A follow-up visit was conducted about 2 weeks after the initial treatment, and right after the tenant returned. Dead bed bugs were found throughout the apartment, with significant clustering in the hallway between the bedroom and bathroom. A dead nymph was also found in one of the SenSci<sup>™</sup> traps. Witt treated the new replacement furniture, including a new bed and couch, with Aprehend<sup>®</sup> to ensure that the new furniture items were protected with the long-lasting Aprehend<sup>®</sup> barriers.

The tenant reported that she saw some live bed bugs about 2 days after this follow up service. Witt Pest management continued to check in with the tenant, and SenSci™ traps were left in place to monitor for continuing bed bug activity. The tenant had no further reports and Witt had no further detections thereafter and was able to declare the apartment bed-bug free well within 30 days from the initial treatment.

#### Analysis of Aprehend<sup>®</sup> protocol in comparison to alternatives

Witt Pest Management also offers heat treatments for bed bug eradication. In this situation, heat would have caused logistical issues and would not have been an option. There were also concerns that the use of heat may have pushed bed bugs into adjacent units.

If a more traditional chemical protocol had been implemented, there would have been concerns over the pyrethrin resistance as well as chemical compatibility and the frequent use of unknown chemicals for an unknown amount of time. Even without these concerns, the chemical protocol would have required more return visits along with higher labor and transportation costs.

Aprehend<sup>®</sup> worked under these challenging conditions because of its long-lasting residual, and lack of chemical and cross-resistance issues. Aprehend<sup>®</sup> helped to protect the apartment long-term and provided peace of mind for the tenant.

#### How to improve Aprehend<sup>®</sup>?

For larger jobs and ease of application to baseboards and crown molding, an extension wand would make things easier. PMPS – *Watch this space!!!!!* 



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