

Can't Beat the Heat

BY LAUREN BOSTON



One owner is successfully using a cost-effective, do-it-yourself intense heat treatment to eradicate bed bugs.

Independent rental owner (IRO) Mark Hurley, President of Highland Commercial Properties in San Antonio, Texas, used to have his bed-bug infested apartments treated with harsh chemicals—a treatment he says cost an average of \$600 per unit and often required multiple follow-up visits.

In addition to concerns regarding the cost and safety of such chemicals, Hurley says residents were frustrated when the treatment wasn't effective the first time.

To address such challenges, Hurley experimented with a do-it-yourself heat treatment that Highland Commercial Properties' General Manager, Corky Wolf, saw on the Discovery Channel. After using this method to successfully treat 24 units in a little over a year, Hurley says he's sold.

The process—which requires the use of a fan-forced propane heater and propane tanks—is fairly simple (if done safely and properly) and can be done in-house in six hours, Hurley says. It takes two employees two hours to prep the unit and one employee four hours to monitor the treatment.

After an initial investment of approximately \$300 for the proper equipment, it costs \$100 to \$160 in man hours to treat each unit—a service Hurley provides free-of-charge to residents. After treating 24 units with heat rather than chemicals, Wolf estimates he has already saved \$11,000.

“Not only is the heat treatment free of chemicals, toxic fumes and residue, but it's also extremely effective and affordable,” Wolf says. “The heat kills the entire life cycle of bed bugs, from eggs to adults. There's less prep work and residents typically don't have to throw any of their belongings out. You can treat an entire structure or spot-treat high infestation zones while other sections of the structure remain operational. Plus, the process is easy. If we can do it, anyone can.”

Before treating a unit using Wolf's approach, he says owners will need the following equipment, which can be found at most national hardware stores.





- Plywood door cover with hole (hole in cover is offset from center to keep heat source away from the door)
- 4-foot by 8-inch double wall flue pipe
- 8-inch double wall flue pipe elbow
- Fan-forced propane heater (approximately 125,000 Btu)—which uses a fan to blow air that has been warmed by metal or ceramic—with variable heat control and automatic shut-off
- Propane tank (two or three 20-pound tanks)
- Infrared thermometer to monitor surface temperatures in the unit
- Extension cable
- Carbon-monoxide alarms—one for the infested unit, as well as all adjacent units—that meet current UL 2034 safety standards and cost approximately \$30 each

Bye-Bye Bed Bugs

Once all the supplies are gathered, Wolf says the process involves seven steps:

Step 1: Remove pets (including fish in an aquarium), fresh food (fruits, vegetables, perishables), foods that melt, prescription and over-the-counter drugs, make-up and wax-based items, anything pressurized—spray cans, fire extinguishers, oxygen bottles, etc.—flammables, wooden and stringed instruments, houseplants and family heirlooms or irreplaceable items that could be damaged in the heat. Smaller items can be stored in the refrigerator.

Any clothing must be put in the washer and dryer on a high-heat setting for 30 minutes. Clothing left in units must be loosely packed to allow for air to flow through during the treatment. Linens, towels, etc., should be left in the area being heated in open-weave baskets. Loose papers must be gathered and boxed, knick-knacks and glass secured, and pictures taken down.

Electronics will not be damaged in 120-degree to 130-degree temperatures, according to Wolf. They are a great hiding place for bed bugs and must be treated. Switch all electronic appliances to the “off” position and disconnect all plugs from wall outlets.

Waterbeds need to be drained and air beds must be partially deflated.

Step 2: Bag and remove bedding. Bedding should be washed and dried in high heat. Wolf’s team leans mattresses up against a wall and removes loose cushions from all furniture.

Step 3: Pull everything away from the walls, open all doors and drawers, and make sure nothing is packed tightly in the closets. The purpose is to facilitate air movement.

Step 4: Turn on any ceiling fans and the air handler/furnace.

Step 5: Crack open windows. Open/remove the front door and cover the opening with plywood assembly with a hole in it. Wolf uses an 8” diameter double wall flue pipe to convey the hot air.

Step 6: Once all the prep work is complete use a fan-forced propane heater to apply heat.

Step 7: Heat the apartment until it reaches 120 degrees to 130 degrees and then adjust the heat source accordingly to maintain this temperature for at least four hours.

“Of the 24 units we’ve treated with heat, there were two instances where it was not effective the first time—and that’s because the employees did not follow instructions and maintain the necessary temperature for the full four hours,” Wolf says. “You have to follow that step.”

Once everything in the unit has reached 120 degrees, it must stay at that temperature for one hour for the treatment to work. If you were to stick your hand down into the sofa, Wolf says, it needs to be 120 degrees for one hour. He recommends not

exceeding 130 degrees and says monitoring the apartment during this time is extremely important.

Although Hurley's communities do not have fire-sprinkler systems, he says other owners who do should contact their fire-sprinkler representative for advice before using the heat treatment. In larger units, other owners also suggest using fans

inside the apartment to move the heat adequately. It may also be necessary to open a window in the back to prevent pressurization of the unit.

FYI

A recording of the most recent IRO Best Practices Conference Call—including additional information on the bed-bug

heat treatment—is available at <http://community.naahq.org/IROConfCalls>.

For information on National Suppliers Council (NSC) members who provide pest-control services, see page 87. **NAA**

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Owners: Minimize Legal Risk

Mike Semko, Counsel and Vice President of NAA's National Lease Program, says there are several proactive steps owners should take—namely through the leasing document and onsite operations—to minimize liability if an apartment becomes infested with bed bugs.

1. Have a system in place to receive residents' complaints and initiate a timely response based on the nature of the complaint and the identification of the cause.
2. Timely document all interactions with residents.
3. Retain a pest-control company that employs state-registered or certified field personnel—and, if possible, one that has a staff entomologist—to identify, advise and treat the type of infestation.
4. Commence treatment of the identified problem as soon as possible.
5. Amend the leasing documents and/or community rules to require residents to timely notify management of a bed-bug problem, allow access to the unit for treatment purposes, and comply with all pest-control responsibilities delineated by management.

Semko says owners shouldn't have difficulty shifting the cost of treatment to the resident if these steps are followed. To do so

successfully, he suggests having a licensed pest-control agent provide documentation that the apartment is free of bed bugs prior to move-in. In addition, he says the leasing documents should be amended to state that after a period of time, the unit will be deemed bed-bug free if the pests are not detected. If an infestation occurs after the detection period passes, require the resident to pay for the treatment.

However, Semko cautions that some residents may try to hide a bed-bug infestation or treat it themselves if they know they'll be financially responsible for any problems they report. Some companies prefer to pay for the first infestation treatment and require residents to pay for any additional treatment. In doing so, Semko says residents are more likely to report the initial infestation immediately. In this case, Semko says the leasing documents should state that if the resident fails to timely report a problem, to allow access to the unit for inspection or treatment or follow the instructions of the pest control agent, the costs of treatment will shift to the resident.

In cities like Chicago, where the bed bugs are out of control, Semko says certain companies have every unit inspected on move-out by a pest management company.

NAA's lease offers a bed-bug addendum that covers all of the above. Contact Mike Semko at michael@naahq.org.

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