

BEST MANAGEMENT PRACTICES

Bed Bugs

Before Treatment

Detailed inspection by qualified pest management professional(s) is the first component of a successful bed bug control program. An inspection of the premises must be performed to identify that bed bugs are indeed the problem and to obtain a visual estimate of the population and how much time it will take for the treatment. The inspection should focus on the sleeping areas and objects near the sleeping areas (such as headboards, bed frames, night tables) but the whole dwelling (**apartment, hotel room, etc.**) **needs to be inspected, including looking for eggs on baseboards, walls, wall outlets pictures on walls and luggage.** Complete a drawing of the room(s) or structure to be treated and record on the inspection form what was found, such as live bugs, staining, eggs, and caste skins. Also record the number found and location. All rooms/apartments adjacent (sides, top and bottom) to the infested room/apartment should be inspected to determine if they are also infested with bed bugs, and these areas should be treated as needed.

The process of inspecting and then treating is very labor intensive. Most pest control companies budget about five to ten hours to treat a typical bedroom. Because eggs are not affected by most insecticides (sprays, dusts, etc) the treatment must be repeated after about two weeks to kill any newly hatched nymphs.

Monitoring devices should be placed under all the legs of human or pet occupied beds or other bed bug infested furniture for at least one night prior to treatment to obtain a population estimate for the room. Remove and kill any trapped bugs. Leave the monitoring device in place for future counts, or replace it if appropriate. It is important to note that this is for monitoring only. These devices do not reduce bed bug populations. Instead, they will give a relative estimation of population levels in the premises. Lack of bed bugs trapped in the monitoring device does not necessarily indicate the premises are free from the pests.

Preparation for Treatment

To prepare for treatment, nothing should be removed from the infested room(s) following inspection; to do so might cause the spread of bed bugs to other areas of the structure. Bed frames should be disassembled, clothing, stuffed animals, and linen (and anything that can be laundered in hot, soapy water and then put in a hot dryer for 30 minutes) should be securely bagged and laundered, objects from closets, drawers, and under beds should be removed (and treated, if appropriate). Note that laundering may not kill bed bugs, while high heat from a dryer most likely will.

As many bed bugs as possible should be physically removed from the premises. This is accomplished by vacuuming all of the carpets or floors as well as visible bed bugs from the furniture. In addition to removing some bugs, vacuuming will cause any remaining bugs to disperse, making them more susceptible to residual insecticides. Once finished, ensure the vacuum bag is removed, sealed, placed in a resealable plastic bag, and either treated with an insecticidal aerosol, such as CB-80™ or CB-40™, and discarded.

Infested items such as computers, televisions, radios, clocks, books, plastic plants, DVD players, and telephones may be treated within a dry heat chamber, bagged with a DDVP strip labeled for that use, or bagged and discarded. Any discarded items should be marked to indicate that they are bed bug infested.

Mattresses and box springs may be discarded if heavily infested. If treatment can clear these articles of bed bugs, they should be covered with an encasement designed for bed bug control and kept in service. Pillow encasements are also commercially available. Before encasing pillows, place them in the dryer for 30 minutes to kill any bed bugs. If the mattress or box spring is discarded, wrap the items in plastic to seal in any bed bugs and



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eggs and place in dumpster. Firmly attach a note to the items or permanently mark them to indicate that they are infested with bed bugs.

Furniture and all other items must be pulled away from the walls. Dismantle bed frames and stand mattresses and box springs on end if not discarded. Remove the cotton dust cover on the underside of the box spring to expose the internal springs.

Treatment of Sleeping Areas

Pesticides must always be used in accordance with the manufacturers' label directions.

Treatment begins with the clearing of bed bugs and eggs from the mattress and any other location/furniture where people or pets rest or sleep. Certain pyrethrin-based flushing agents can help stimulate the bugs to move around and out of hiding, making them easier to detect and kill. Aerosols such as CB-40 or CB-80 can be used to flush insects from hiding spaces on mattress surfaces. Once the mattress is cleared, install the appropriate size encasement or mattress liner. Encasements should be left in place indefinitely. The occupants should install a washable mattress pad and/or sheet on top of the encasement or liner after insecticide treatment is dry. If no encasements are to be used, apply an insecticide to the mattress folds, tufts, and edges. Make sure to use an insecticide labeled for such use, such as CB-40 or CB-80 and follow the label directions.

Treat other infested or suspected infested areas associated with the bed, such as the box spring, headboard, and bed frame, with a residual insecticide such as Transport® GHP insecticide or Talstar® XTRA insecticide. In situations where resistance may be an issue and only in states where it is labeled, use Invader™ insecticide with Propoxur to treat these areas. An encasement liner may be installed on the cleared box spring.

Treatment of Non Sleeping Areas

Couches or recliners should be inspected and treated if bed bugs are found. Use CB-40, CB-80, Talstar XTRA, or Transport GHP insecticide to treat corners, folds and other tight wood and fabric areas of furniture. Other areas to be treated include the inside framework of furniture as well as the back of pictures on the wall, wall outlets, luggage, and the attachment points for window treatments, the carpet edge and tack strip, on and under carpeting, inside closets, closet shelf edges, peeling wallpaper. Pay close attention to wood and fabric surfaces which bed bugs prefer. Attention to detail in treatment is critical for the control of this pest. Every conceivable potential harborage point, down to the space above recessed screws, should at least be inspected and treated as needed. Dust insecticides, such as Cynoff® insecticide dust or Borid® dust should be used to treat cracks, crevices, and voids where a liquid insecticide is not appropriate, including behind electric switch cover plates, the floor-carpet junction, cracks in baseboards, recessed light fixtures, and wall joints.

If not done already, the four posts of the bed should be placed in sturdy glass dishes, or some other type of monitoring device may be used around the feet of the bed. Bed bugs cannot climb smooth surfaces, so glass dishes will exclude more bed bugs from being able to infest the bed, as long as the bed is away from the walls and covers are kept from touching the floor. Certain monitoring devices could also serve as a hindrance for bed bugs trying to get on the bed.

Overall, bed bug control is a complex and labor-intensive process. Population suppression, or control, may be achieved through proper monitoring, inspection, and treatment using both mechanical and chemical means.

Always read and follow the label directions.

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Treatment Checklist

If bed bugs or evidence of bed bugs are found during inspection, do not remove any items from the room.

Preparation

- ✓ Disassemble bed frame, remove box spring dust cover, and move furniture away from the walls before treatment.
- ✓ Securely bag and launder any items that can be laundered (washed in hot, soapy water and then put in a hot dryer).
- ✓ Vacuum carpets, floor, and furniture to remove any visible bed bugs. When finished, seal vacuum bag, treat with an insecticidal aerosol and discard.
- ✓ Inspect couches, chairs, luggage, inside closets, picture frames, carpet edges, recessed screws, and other potential harborage areas. Identify infested items for treatment.
- ✓ Remove all electrical plates, phone jack covers and light switches.
- ✓ Cover fish tanks and turn off pumps.
- ✓ Remove all domestic pets from the structure being treated.

Treatment

- ✓ Infested electronics, books, plastic plants, etc. should be treated with dry heat, bagged with a DDVP strip, or bagged and discarded
- ✓ Mattresses and box springs should be either treated with insecticide or defaced (so no one else will take them) and discarded. If treated, cover with encasements to prevent re-infestation. If treating the mattress, use either CB-40 or CB-80 to flush out insects from hiding spaces, such as tufts, fold, and edges.
- ✓ Treat other suspected hiding places, such as the box spring, headboard, bed frame, chairs, luggage, inside closets, picture frames, carpet edges, and recessed screws with Transport GHP or Talstar XTRA. (Use Invader with Propoxur if allowed in your state. Check with your regulatory office for status.)
- ✓ Use either Cynoff Insecticide dust or Borid dust to treat behind electric switch and outlet cover plates, recessed light fixtures, voids, and other harborage areas where a liquid spray is not appropriate.
- ✓ Once you have completed the treatment of the infested room and the items in it move to the adjacent rooms for inspection/treatment.

- ✓ Schedule a follow up inspection/treatment.



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