

Pest Press

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INTEGRATED PEST MANAGEMENT

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Bed bug adult, nymph (upper left), and fecal spots. Photo by Gary Alpert, Harvard University, Bugwood.org

Controlling Bed Bugs

Bed bug control requires a combination of approaches, as pesticides alone are not completely effective. A comprehensive strategy should include vacuuming and cleaning along with elimination of hiding places. Professional steam or heat treatments can be effective if performed by trained personnel. Less-toxic insecticides can be used, but in most school situations application of residual insecticides is not advised. Bug bombs or foggers are NEVER recommended in any situation, as bed bugs hide in sheltered places that are unaffected by these pesticide applications. For the best results, your district may wish to contract with a professional pest management company with experience in bed bug control.

BED BUGS

"Good night, sleep tight; don't let the bed bugs bite." The familiar refrain we have heard for years has taken on a more sinister meaning as bed bugs make a world-wide resurgence. Motels, theaters, schools, apartment buildings, homes—all of these are places bed bugs have been found. The good news is, unlike many other blood-sucking parasites, bed bugs are not known to transmit human diseases. Bed bugs prefer to feed on humans, but in a pinch they will also feed on other animals such as rodents, bats, and birds. Bed bugs move around by hitching rides or laying eggs on clothing, furniture, bedding, and baggage. Bed bugs don't discriminate. People of all economic levels, housing types, races, colors, and religions are equally susceptible.

Adult bed bugs are flat insects around 1/4" long. They are broadly oval in shape and typically rusty brown-red in color. They lack wings, but can crawl very quickly. After feeding, adults are more elongated and torpedo-shaped, gradually returning to their flat, oval shape as their meal is digested. Females lay tiny white eggs that hatch into light-colored nymphs in about 7-10 days. Immature nymphs resemble adults but are smaller (less than 1/10" to almost 1/4" depending on developmental stage). The nymphs turn bright red after a blood meal. While nymphs need blood meals to complete their development, adult bed bugs can survive for several months without a blood meal. During the day, bed bugs hide in any available crack, crevice, or sheltered spot near their feeding area. At night, they come out of hiding to feed. Bites often occur as a row of several raised, reddened bumps. Most people don't feel the bites when they occur, but later the bites can become very itchy or painful. Some individuals, however, may not even notice them.

WHAT CAN YOU DO? Simple strategies for the classroom and beyond.

Your school district should have an action plan in place in case of a bed bug problem. In the classroom, you can help by planning ahead and being prepared. Monitor for bed bugs regularly, especially in trouble-prone areas such as lost and found piles, donations, and areas for storing personal items such as coats, bags, and backpacks.

1. **REDUCE CLUTTER!!!** Clutter provides hiding places and shelter for a wide range of problem pests. Cardboard boxes in particular are VERY attractive to many pests.
2. Seal cracks and crevices and choose classroom furnishings carefully.
3. **DON'T** use upholstered furniture in the classroom. Floor pillows, mats, and other fabric items should be laundered regularly and dried in a hot dryer.
4. Provide separate lidded tubs for storing students' personal items. Backpacks and coats are a great way for bed bugs to spread. Lost and found collections should also be stored in lidded plastic tubs whenever possible.
5. Vacuum thoroughly and regularly.

BED BUGS IN SCHOOLS: WHAT YOU SHOULD KNOW

Schools are not an ideal environment for bed bugs since they prefer to feed at night—a time when most schools are relatively empty. Most bed bugs in schools are brought in as stowaways on student or staff belongings. If bed bugs are detected in a classroom, collect a sample for identification by a professional. Bed bugs can closely resemble other species, so accurate identification is essential. Once a bed bug is identified, a thorough inspection of the area should be performed.

Thorough cleaning of the area where the bug was found may be needed. This should include careful vacuuming with particular attention paid to cracks and crevices in furniture, equipment, floors, etc. Washable items suspected of harboring bed bugs can be tumbled in a hot dryer (140 °F). Dry items can be tumbled for 20 minutes; wet items should be dried completely and then tumbled an additional 20 minutes. Non-washable items that are heat-tolerant may also be treated by drying in this manner. This will kill adults, nymphs, and eggs.

If a bed bug is found on a student or their clothing or belongings, it is NOT necessary to send the student home, but their parent or guardian should be notified. Depending on your district's policy, parents of all children using the classroom should be notified, as well. You may also wish to provide information about bed bugs including a description of the insects, signs and symptoms of infestation, and management information. Personal items belonging to EVERYONE using the classroom should be isolated in tight-sealing plastic containers or bags (both at home and at school) while the problem is being resolved. Continue monitoring and re-inspecting the classroom and personal belongings/storage areas during this time.

FOR MORE INFORMATION:

WSU Extension Offices in your county

Carrie Foss

Urban IPM Coordinator, WSU Puyallup
cfoss@wsu.edu (253-445-4577)

UPEST

<http://www.ecy.wa.gov/programs/swfa/upest/houseBed.html>

WSU Pestsense

<http://pep.wsu.edu/pestsense>

US EPA

<http://www.epa.gov/pesticides/bedbugs/>

Virginia Department of Agriculture

<http://www.vdacs.virginia.gov/pesticides/bedbugs-facts.shtml>

New York State IPM (Cornell University)

http://www.nysipm.cornell.edu/publications/bed_bugs/files/bed_bug.pdf
http://www.nysipm.cornell.edu/whats_bugging_you/bed_bugs/bedbugs_faqs.asp

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