

Basic Information and Control Strategies for Bed Bugs

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**Educational
Bulletin**

Bed Bugs

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Bed Bugs are parasitic insects that have become an issue in residential, commercial and institutional settings. Bed bugs are opportunistic and can be accidentally picked up from many indoor environments so they are a potential problem for anyone. There are strategies available from Health Canada at <http://www.hc-sc.gc.ca/cps-spc/pest/part/protect-proteger/bedbugs-punaisses-lit/index-eng.php> to help prevent picking up and bringing these pests into your home, business or establishment.

The remainder of this document will briefly outline what you can do to monitor, control, prevent and deal with a bed bug infestation. Refer directly to the references at the end of the document for specifics on processes and for greater details.

| Where they live, how they move and how to recognize them

Bed Bugs do not jump or fly but walk to and from their host and hiding areas. As such they prefer to hide and rest in areas near to where they feed such as mattresses, box springs, cracks in furniture, underneath cushions, in chairs and sofas, cracks between walls and baseboards, underneath area rugs, etc. They are visible to the human eye and adults resemble apple seeds in shape and can be about 10 mm in length. They become darker in colour after recent feeding. Their eggs are white, about 1 mm in size and very hard to see without magnification. The eggs are "cemented" to surfaces and therefore need some physical action to remove them from a surface.



| How they are killed

There are insecticides available for bed bugs but it is recommended that they should be applied as a treatment by a Pest Management Professional (PMP). Note that insecticide treatment alone is not recommended to get rid of an infestation. An Integrated Pest Management strategy will give optimum results. Soiled clothing and launderable items can be washed in hot water and dried on a high heat setting for 20 minutes to kill eggs and bed bugs on these objects. Clean fabrics and objects can be placed in a dryer for 20 minutes to kill eggs and bed bugs. Steam (temperatures above 50°C) can kill bed bugs in all stages of development on upholstery and carpeting. Dry steam settings are preferred over wet steam settings to avoid mold issues on fabrics/upholstery.

| Other methods of control

Bed bugs need to hide when not feeding so they do well in a cluttered environment. Keep clutter under control to deny them hiding places. Areas where clutter is likely to occur should be monitored and tidied when possible.

Vacuuming can physically remove bed bugs and their eggs from surfaces. Vacuum with HEPA filtration can also help reduce the spread of allergens but is not necessary for the removal of bed bugs and their eggs. Be sure to use a vacuum tool with a stiff brush and go over the surface several times to help remove eggs and the bed bugs. All cracks, crevices and seams and folds on mattresses, box springs, bed frames, chairs and surfaces where they are likely to hide should be vacuumed. Let vacuum run for a few minutes to be sure all bed bugs are in the disposable filter bag and then remove filter bag and seal in a plastic bag and dispose in trash. Be sure to wash all tools and hoses with hot water and detergent after use. Cracks and crevices in hard furniture frames (i.e. wooden bed frames) as well as gaps between walls and baseboards and electrical outlets and switches can be caulked and sealed to deny bed bugs a refuge.

Mattresses and box spring coverings designed to protect against bed bug infestation can be used in locations or buildings of high risk to protect these items from future infestations and make clean-up easier and reduce costs.

| Integrated Pest Management

An Integrated Pest Management (IPM) strategy is the best way to deal with bed bugs and requires the cooperation of property management, building occupants, cleaning staff and Pest Management Professionals (PMP).

Education - Building occupants and cleaning staff should be educated on steps to preventing bed bugs in their work / living spaces and know how to recognize them. Building occupants and cleaning staff should also know how and to whom they should report concerns that they have potentially identified the presence of bed bugs.



Surveillance - Property Management should conduct regular inspections scheduled throughout the year to identify potential infestations. Frequency of inspections should be based on the occupant activities and type of facility. Quick identification and implementation of your action plan will help minimize the cost of clean-up and minimize the disruption of your facility operations.

Action Plan - Once the presence of bed bugs has been confirmed, building occupants and cleaning staff need to know their role in eliminating bed bugs. Remember as well that adjacent areas or rooms to the area of infestation may also need to be treated to eliminate the infestation from the building. Building occupants may be required to remove and launder objects, seal-up and remove personal belongings as well as move furniture. Cleaning staff will need to have access to and know how to use equipment such as vacuums, steam cleaners and carpet extraction machines. Occupants and cleaning staff will need to have access to moving wrap to encase furniture, mattresses, box springs if disposal of these objects is determined to be the course of action for these objects. Selecting and scheduling a PMP to treat the premises in coordination with building occupant and cleaning staff efforts will also be required.

Action Plan Follow-Up - The success or failure of the action plan needs to be determined with the potential need of repeated efforts or change in scope or process until successful. The entire process of discovery, action plan and results should be recorded for future reference and review to determine and improve the prevention and surveillance efforts.

Communication and Education - The efforts and results should be communicated to building occupants and staff so that they can understand their role in the successful elimination of the bed bugs and how they can help prevent and control a recurrence.

References:

Consumer Product Safety Bulletin on Bedbugs, Health Canada Website (2011-03-09)
<http://www.hc-sc.gc.ca/cps-spc/pest/part/protect-proteger/bedbugs-punaisses-lit/index-eng.php>

Fact Sheets series for Tenants / Landlords and Property Management,
 Toronto Public Health Department, City of Toronto
 (dated between February and November 2008),
<http://www.toronto.ca/health/bedbugs/factsheets.htm>



About Louis Anastasakos

In 1990, upon receiving an honours degree in Chemistry from McMaster University in the previous year, Louis joined the Sanitation industry as a chemist. Louis was later promoted to the position of Lab Supervisor and then to Development Chemist for Institutional Products. In 1997, Louis joined Wood Wyant in the position of Technical Manager overseeing regulatory affairs, product quality management and product development at the Wyant Chemicals Division. In 2006 Louis shifted to a Marketing / Sales support role within Wood Wyant bringing his technical knowledge to the aid and support of Wood Wyant customers.

Today, as an Expert Sustainability Professional (ESP) of the CGSP program with CIMS I.C.E. - GB Accreditation and a member of the Industrial and Institutional Technical Forum (IITF) of the CSSA, Louis blends his technical background, his global understanding of products and processes and with his love for public speaking to ensure clients are well educated on developing the most efficient and beneficial programs.

