

# LOS ANGELES UNIFIED SCHOOL DISTRICT

## PEST OF THE MONTH PROGRAM NO. 38

### BED BUG PROTOCOL FOR SCHOOLS

#### INTRODUCTION

There has been a recent resurgence of bed bug infestations in the United States (Gulmahamad 2002). During the 1980's and 1990's, incidences of bed bug infestations in the US were rare. It is believed that increased trade, travel, and commerce are responsible for introducing bed bugs into America from all over the world. They are found in residences, as well as hotels, including some of the most expensive and exclusive hotels in the United States.

Bed bugs are small, agile, secretive, cryptic, covert, insidious insects that can very easily crawl into suitcases, luggage, boxes, and other belongings. Evolution and natural selection have shaped bed bugs into an insect that is flat and thin and is highly adapted to occupying cracks, crevices, nooks, and crannies in human accoutrements and being easily transported by people in their luggage and belongings.

#### BED BUG FACTS

- ✓ Adult bed bugs are about 1/8 inch long with reddish-brown, oval flattened bodies. The nymphs resemble the adults, but are smaller and lighter in color.
- ✓ Bed bugs feed solely on the blood of warm blooded animals. The common bed bug, *Cimex lectularius*, prefers to feed on humans, but it will bite other animals including pets.
- ✓ They feed by piercing the skin with a beak. The bitten person seldom knows that he/she is being bitten. Bite symptoms range from an allergic reaction, to itchy welts, to localized swelling, to little or no reaction.
- ✓ Bed bugs are not known to transmit disease organisms to people.
- ✓ Bed bugs do not fly, but they can crawl over floors, walls, ceilings, and other surfaces. They can travel over 100 feet to obtain a blood meal, but they usually seclude themselves close to their human hosts.
- ✓ Female bed bugs lay their eggs in secluded places depositing about 5 eggs each day and up to 500 hundred during a lifetime.
- ✓ The eggs are whitish and difficult to see without magnification. Eggs are about the size of a dust speck and when freshly laid, they are sticky and adhere to surfaces.
- ✓ Newly hatched nymphs are about the size of a pinhead. As they develop, they molt five times before becoming adults. They have to obtain a blood meal between each molt to enable further development.
- ✓ Under favorable conditions (70 °F to 90 °F), bed bugs can complete a generation from egg to adult in about 30 days, producing three or more generations per year.
- ✓ Nymphs can survive months without feeding and the adults for more than a year. Leaving an infested premise unoccupied will not get rid of an infestation.
- ✓ Bed bugs are active mainly at night. During the day they hide close to where people sleep.
- ✓ Bed bugs do not make nests like ants or bees. They tend to congregate in hiding places.

Generally these areas are characterized by dark spotting and staining. Eggs, egg shells, and molted skins will also be present in harborages.

- ✓ In infested apartments, 70% of bed bug infestations have been associated with beds with 35% occurring on box springs, 22% on mattresses, and 13% on bed frames and headboards. Sofas and reclining chairs have accounted for 23% of infestations.
- ✓ Other places where bed bugs have been found are along and under the edge of wall-to-wall carpeting (especially behind beds and furniture); cracks in wood molding; ceiling/wall junctions; behind wall mounted picture frames and mirrors; behind switch plates and outlets; under loose wallpaper; amongst clothing and clutter stored in closets; and inside clocks, phones, televisions, and smoke detectors.
- ✓ Furniture rental companies and moving vans often play an important role in distributing bed bugs.
- ✓ The acquisition of used beds and other used furnishings is a common way people bring bed bugs into their residences.
- ✓ Discarded curbside items should be avoided. Rent-to-own items, especially beds and couches, should be carefully inspected before being brought into homes.
- ✓ If you travel, it is recommended that you inspect your bed for evidence of bed bugs. Elevate your luggage off the floor by placing them on a luggage stand, tabletop, or other hard surface and avoid putting bags, coats, purses, jackets etc. on beds that might be infested.
- ✓ Washing infested clothing, bedding, and garments using a hot wash setting (120 °F minimum) will kill all stages of bed bugs.
- ✓ Placing clothing, toys, shoes, backpacks, etc. in a clothes dryer set at medium to high heat for 10 to 20 minutes will also kill bed bugs. Do not put items in dryer that can be damaged by high heat.

## **QUESTIONS AND ANSWERS ABOUT BED BUGS.**

### **Why is the school district addressing bed bugs?**

We are addressing bed bugs because two incidences involving these insects have occurred on district property. One was on a desk in a school and the other was in an office building.

### **How did a single adult bed bug get on a student desk in a school?**

In all probability, this insect was brought to school in a student's belongings such as a fabric-type lunch bag, backpack, jacket, or other clothing material.

### **What about the office infestation?**

This situation involved a person who resided in a large apartment complex that was infested with bed bugs. The individual feared that she might have inadvertently brought bed bugs from her apartment to her work station. Careful inspections revealed that there were no bed bugs at her work station.

### **What should you do if you think you discovered bed bugs in a school?**

(1) Place the insect in a crush-proof container if you have one. (2) Place the specimen in a zip lock bag if one is available. (3) Apply a piece of tape to the insect and then stick the tape on a clean, white sheet of paper trying not to crush the specimen in the process. For added protection,

and if you deem it necessary, you can wear a pair of disposable gloves when retrieving specimens. The purpose of this is to acquire a specimen for accurate identification by the District's Pest Management staff. There are other insects, such as small cockroach nymphs, that can be confused with bed bugs. Have the principal, assistant principal, or plant manager place an emergency work order request to the call center to have the specimen picked up. Because a bed bug situation is a high priority matter, the District's pest management department will dispatch a technician to the site to assess and evaluate the situation. If a bed bug problem is discovered early, it can be easily solved by something as simple as vacuuming up the insects and removing them from the premises.

**What should you do with a person who may have brought bed bugs to a school or work location?**

The law does not permit anyone, other than law enforcement officers, to search a person or a person's belongings even if you are just looking for bed bugs. If you are certain bed bugs are emerging from a backpack, a fabric-type lunch bag, a jacket or coat, these items can be placed in a trash bag and the bag tied off to confine the infestation. It is not necessary to send home a student because he/she brought a few bed bugs to school. If it is confirmed by a District Pest Management Technician that a student belongings are infested, the parents or guardians should be contacted by the site administrator because they may have a bed bug infestation at home of which they are not aware.

**Should the health department be contacted if bed bugs are found at a school?**

**No.** Bed bug infestations are not considered a contagious or infectious health issue and the health department should not be contacted. The District's pest management department personnel are trained and informed about bed bugs and they are fully capable of resolving bed bug problems.

**Should people leave a classroom if bed bugs are discovered there?**

It is unlikely that an established bed bug infestation will be found at a school because an ideal host-parasite relationship is not present there; i.e. people usually do not sleep in beds at schools for long periods of time. Bed bugs can be brought to schools from infested residences. If five or more bed bugs emerge from, or fall out of, a student's belongings, the classroom could be temporarily cleared until the situation is rectified. This can be accomplished quickly by vacuuming up the insects. Call the District's Pest Management Department for help.

**A WORD OF CAUTION**

**It is important that bed bug situations be handled professionally with diplomacy, tact, and discretion. Bed bugs are detestable creatures and people are repulsed by them. What we do not want to do is create hysteria and paranoia by not reacting in a responsible manner to an issue that can be easily resolved.**

Gulmahamad, H. 2002. Bed Bugs are Back. Pest Control 70(1): 28 – 29.

This document was prepared by Dr. Hanif Gulmahamad, B.C.E., Urban and Structural Entomologist. September 16, 2008.

## *Images*

