

# Battling the Bug:

## Everyday Tools You Can Use

### Getting started without using pesticides

#### Before reaching for a pesticide, try IPM!

Applying pesticides may seem like the easiest way to get rid of bed bugs. However, research shows that pesticides alone cannot do the job. Bed bugs are very good at hiding and avoiding pesticide residue. In addition, many bed bugs have developed resistance to certain insecticides.

**IPM** stands for integrated pest management. It is a way of controlling pests that uses the pest's biology to identify the best tactics. It typically prioritizes non-chemical control methods first.

#### Here are some tips to get started without pesticides:

- First, make sure it's bed bugs, not a different pest! Get help identifying bugs or signs of bugs from an expert in your area.
- Don't panic and throw out your stuff! This may be expensive, unnecessary, or spread bed bugs to others who bring home your discarded things.
- Inspect your sleeping area thoroughly and remove as many bugs and eggs as possible. Using a vacuum with a crevice tool may help. Seal the vacuum bag up in a plastic bag immediately when you finish vacuuming and dispose of it to avoid re-infestation.
- Regularly wash and dry clothes and bedding, using hot soapy water and a dryer on high heat for 30 minutes or more.
- Use special covers (called encasements) on mattresses and box springs. Make sure they are designed specifically for bed bugs. When used properly, bugs in the mattress and boxspring can't get out and bite or spread. The covers are also easy to inspect.
- Use bed bug interceptor traps under the legs of beds and other furniture to trap bugs and keep them off un-infested items. Traps also help you monitor the problem.

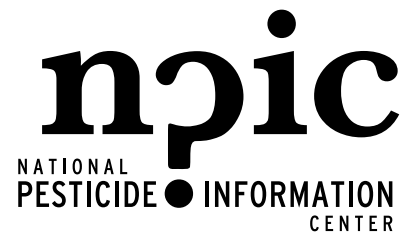


**These are just a few tips, but there are many more. Learn about controlling bed bugs with integrated pest management.**

Call us to learn more (800-858-7378) or request a (e)mailed copy of bed bug control resources at [npic@oregonstate.edu](mailto:npic@oregonstate.edu).

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### Need more help? Seek out a professional.

- If your budget allows, consider consulting or hiring a professional pest control company.
- Professionals may use heat and steam treatments to kill bugs in your home and furniture. DIY attempts at using heat and steam to kill bugs in whole rooms or furniture often don't work and are a fire risk.
- Make sure the professional you hire is licensed and has experience with bed bugs and follows integrated pest management (IPM) practices.
- Learn more about [selecting a pest control company](#).

### What about using pesticides and other chemicals?

Pesticides can be an important component of controlling bed bugs. However, they should be used in combination with non-chemical methods, like the ones described above. Pesticides and other chemicals must always be used with caution, otherwise they can cause more harm than good. If you use a pesticide, always [read and follow the label](#).

### Reduce risk and unwanted exposures when considering pesticides for bed bug control.

#### Foggers don't work:

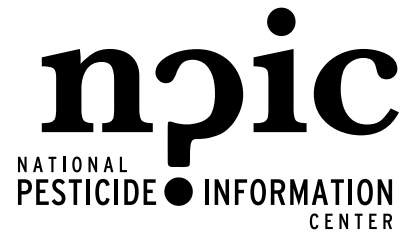
It may be tempting to run to the store and grab a fogger (also known as bug bomb or [total release fogger](#)). However, these are not effective at controlling bed bugs. Bed bugs hide in and under objects, but foggers will only kill bugs out in the open. Foggers deposit pesticide on all exposed surfaces, but they do not penetrate the places where bed bugs hide.

#### Beware of DIY products:

There are lots of recipes for [do-it yourself \(DIY\)](#) sprays using common household ingredients, essential oils, or [food-grade diatomaceous earth](#) (DE). These are rarely effective AND they do not come with instructions or precautions, including first aid instructions. These may just cause the bugs to scatter and make an infestation much harder to control.

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### Using diatomaceous earth (DE):

- DE is a desiccant that kills bed bugs by destroying their outer waxy layer and causing them to dehydrate. DE must contact bugs to work and is most appropriate for use in cracks and crevices.
- DE is sold as a food-grade and pesticide version. Use the pesticide version for bed bug control. The labels of food-grade DE products do not give instructions for pest control, how to reduce risks, or what to do if you are exposed. Food-grade DE may also be a finer dust with a smaller diameter diatom that is more harmful if inhaled.
- Sprinkling DE on mattresses and furniture can cause people to inhale the small particles, which can irritate the lungs. Always follow the label directions!

### Avoid dangerous and illegal chemicals

#### Beware of kerosene and rubbing alcohol:

People have used harsh substances like kerosene and rubbing alcohol on mattresses and other items in a desperate attempt to get relief from bed bugs. This is a fire hazard, can expose you to the chemicals, and can make you sick. It is also ineffective. Do not attempt this.

#### Beware of illegal or imported products:

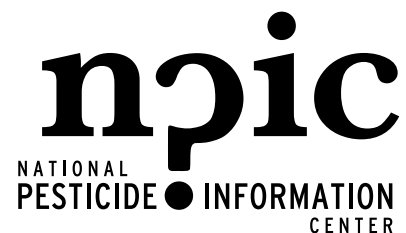
- Only use pesticides registered for use in the United States. If the product label does not include English and you cannot find an EPA Registration Number on the package, it may be illegally imported and not allowed for use in the US.
- Illegally imported products may be dangerous or make you sick. They may use chemicals that are considered too toxic for products legally sold in the US.
- Two illegal products to beware of are Sniper and No Pest with DDVP/dichlorvos. They do not have EPA registration numbers and are not allowed for use in the U.S. They are dangerous and have caused serious health effects in people who have used them.

Have questions or concerns about a product? Call us at **800-858-7378** to learn more and get information about reporting suspicious products or illegal pesticide use.

Report illegal or concerning pesticide activity to your [state pesticide regulatory agency](#).

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### Other things to watch out for:

- **Don't use repellents or apply pesticides to your body.** Repellents are not effective against bed bugs. They are also not meant for use on bedding or under clothing.
- **Fumigant pesticides** like pest strips containing dichlorvos or mothballs can **only be used as directed by the label.** They must be used in airtight containers where fumes reach the high concentrations needed for them to work. They should not be used in the open air of living spaces where their fumes could make you sick.

### Best practices when using pesticides

#### If using pesticides, read and follow all label directions:

- Use only **where** described on the label.
- Use only **how much** and **how often** indicated by the label.
- Use products registered with the U.S. Environmental Protection Agency (U.S. EPA). Look for an EPA Registration Number on the product labelling. This means the EPA has reviewed the product.
- Check the label of any pesticide **before** purchasing to see if it says it will control bed bugs. You can open label booklets at the store if you need to read more information. Contact the product manufacturer for help understanding the label.

**If you use pesticides that do not list bed bugs on their labels, or use them in off-label ways, you could harm yourself or others without harming the bugs!**

#### Minimize your exposure when applying pesticides, before, during, and after:

- Before you use a pesticide, pick up or cover things like pet bowls, toys, or personal care items you don't want residue on.
- Wear all protective gear the label requires, such as waterproof gloves or goggles. Wear long sleeves, pants, and shoes when mixing or applying pesticides.
- If you are using a spray, back away as you apply. Have everyone leave the room you are treating, including pets. Remember to cover fish tanks!
- Leave the area after spraying to let the spray settle and dry.
- Ventilate and make sure surfaces are dry before returning or allowing others back into the room.

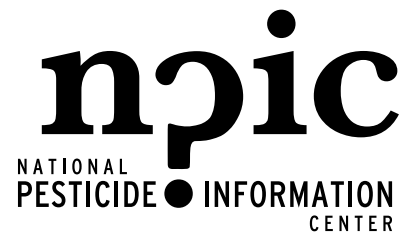
NPIC is a cooperative agreement between Oregon State University and the U.S. Environmental Protection Agency (U.S. EPA). The information in this publication does not in any way replace or supercede the restrictions, precautions, directions, or other information on the pesticide label or any other regulatory requirements, nor does it necessarily reflect the position of the U.S. EPA.



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### **Hitchhiking bed bugs: Concerns about bringing bed bugs home with you.**

Some people may have a job where they visit the homes of clients who may have infestations or visit the home of family members with a bed bug problem. Other may be concerned about accidentally bringing home bed bugs after travelling in hotels and motels. Here are some tips to reduce the chances you will bring a bed bug home with you:

#### **When visiting infested homes/buildings:**

- Avoid bringing items into the building unless necessary. Consider leaving purses, backpacks, and other items in the car.
- If you do bring items into the building, consider placing them on a table or countertop, never on a bed or upholstered furniture.
- Don't sit down on a bed or upholstered furniture. Consider standing or bring a small folding stool with you, one that can be quickly and easily inspected when you leave.
- Wear simple, light-colored shoes that you can easily inspect when you leave.
- Carry a change of clothing and shoes. If you discover that the building you are visiting is infested and you are not confident you could inspect yourself thoroughly enough, change your clothes and shoes as soon as possible. Seal the clothing and shoes in a plastic bag or sealed tub until they can be placed in a hot drier for 30 minutes.
- Consider keeping potentially infested items like clothes, shoes, and bags, in a sealed tub when not in use. If a bed bug has hitched a ride, it cannot crawl off without you finding it.
- Bed bug interceptor traps can be helpful to monitor bugs and catch a problem before it gets out of hand.

#### **When travelling to hotels/motels:**

- Upon arriving, inspect the bed and surrounding area for bed bugs. Focus on the headboard, the corners and seams of mattresses and box springs (remove the corners of the fitted sheet).
- Use your phone's flashlight to help you inspect more thoroughly. Bed bugs like to hide in cracks and crevices in walls and furniture. In addition to scanning for bed bug adults and nymphs, look for skin sheddings, and reddish-brown stains.
- Place luggage in the bathtub until you can do a scan of the room.
- Inspect the luggage rack for signs of bugs before placing your luggage on it.
- You may consider storing clothing inside of large, sealed plastic bags to further reduce the chance of hitchhikers.
- Upon returning from your trip, wash all clothing in hot soapy water and dry on high heat to kill bed bugs and eggs. If possible, inspect your luggage carefully before bringing it into the home.