



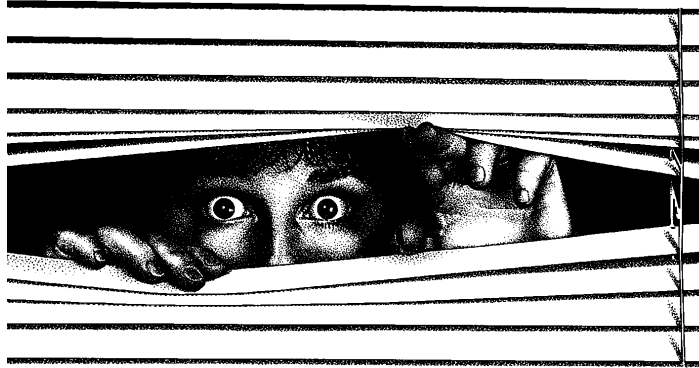
## How America Really Feels About Bed Bugs

### New NPMA Survey Has a Few Surprises

The National Pest Management Association has just released the results of a new survey on bed bugs in America and how they now impact everyday life. These are the key survey highlights:

**1. Bed bugs have been found in all 50 states.** And their occurrence is pretty well evenly spread across the country: 17% of Northeast respondents have encountered them; 20% in the Midwest; 20% in the South; and 19% in the West.

**2. Americans who have encountered bed bugs tend to be younger, live in urban areas and rent their homes.** It's probably not surprising that the incidence of bed bugs is three times higher in urban areas than in rural areas due to increased population density combined with the increased mobility and travel of city dwellers.



**3. Most Americans are concerned about bed bugs and believe that bed bug infestations in the U.S. are increasing.** Nearly 80% are most concerned about encountering bed bugs at hotels; 52% on public transportation; 49% in movie theaters, 44% in retail stores; 40% in medical facilities; 36% in their own homes; 32% in places of employment, and 32% in friends' homes.

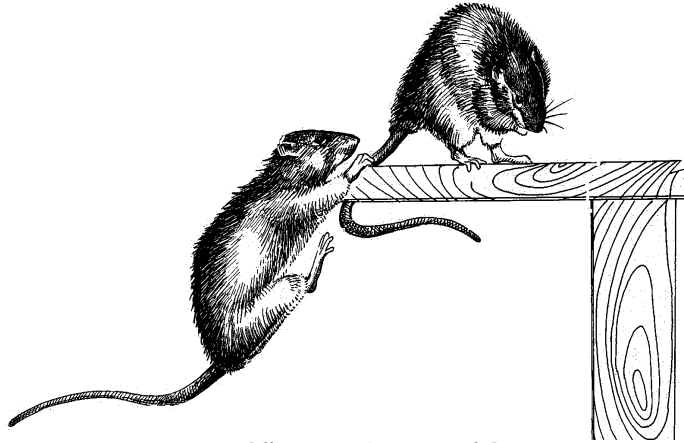
**4. As public awareness of the bed bug resurgence grows, Americans are changing their behavior to avoid bed bugs.** 27% have checked or washed clothing after a trip; 29% have washed new clothing after bringing it home from the store; 16% have inspected secondhand furniture brought into their home. Of those respondents who knew someone with a bed bug infestation in their home: 40% have avoided entering the infested home, and 33% have discouraged someone with bed bugs from visiting their home.

**5. Despite widespread exposure to information, most Americans know little about bed bugs.** Nearly half of the survey respondents incorrectly believe that bed bugs transmit disease. Other misconceptions: 29% believe bed bugs are more common among lower income households, and 37% believe bed bugs are attracted to dirty homes.

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# The Reality of Norway Rat Reproduction

If you happened to catch the A&E Network episode of "Hoarders" last week, you saw some truly amazing footage of a rat-filled home. Glen from L.A. (who seems to be a perfectly rational guy) had a collection of over 1500 rats. He sheepishly admits that he started out 2 or 3 years ago with three pet rats that were given to him by his daughter; two females and a male, he thinks. After his wife died, Glen took comfort from his continually growing circle of rat friends.



*[Illustration: Amy B. Wright]*

The rats have literally driven Glen out of his home; he was living in a shed on his property. The rats were everywhere inside the house: dozens inside every piece of upholstered furniture and mattresses and box springs, inside all the walls and ceiling voids and under the bathtub. They had chewed nest holes into every portion of the house. The animal rescuers and film crew had to walk on a 1-1/2 inch thick layer of droppings and insulation pulled out of the walls by the rats.

Even though they have driven him out of his house, Glen still loves his rats and takes care of them. To feed them, he tosses handfuls of rat chow into the middle of what used to be his living room floor, and rats come running out by the hundreds to dine.

Glen agreed to get professional help but, like most hoarders, he finds it extremely traumatizing to let go of his collection. He insists that the rats be trapped for adoption. Eventually, over 1,000 of the rats end up at Andy's Pet Shop in San Jose. After the animal rescue group had pulled out all the rats and the camera crew had packed up and gone home, Glen still managed to trap out an additional 350 overlooked rats in his home.

**That was reality TV! Here is the reality of rat reproduction:** About 22 days after mating, a female Norway rat gives birth to a litter of 8 to 9 pups. Litters as large as 12 young can occur. The young rats open their eyes in 9 to 14 days and are weaned in 10 to 15 days. Once weaned, they start exploring outside the nest. The pups are sexually mature when just 8 to 12 weeks old. Females come into heat every 4 to 5 days and can mate again just a day after a litter is born. A female can theoretically give birth to over 40 young in a year, but the typical female successfully weans 20 pups in a year.

Reproduction peaks in the spring and fall and in outdoor colonies drops during weather extremes, but under ideal conditions (as they certainly were in the protection of Glen's house), rats can breed year round. In the wild, the average rat lives only 5 to 12 months due to predators, competition, disease, or stress. In captivity, pet rats may live for 3 or more years so Glen's original rats were likely still part of that vast extended family.

## Do You Need Protective Gloves? Look to the Label

You're about to apply a new pesticide product for the first time. Should you be wearing protective gloves? If so, what kind?

The pesticide label should always be your first source of information as to whether protective gloves are necessary or not. Under the *Precautionary Statements* section of the label, you may find a very specific statement like "Wear impermeable gloves such as neoprene when spraying." Or, the label may simply advise you to use "chemical-resistant" gloves. Which leaves you with the question, which gloves are chemical-resistant?

A glove is considered *chemical-resistant* if there can be no movement of chemical through the material during its use. It's the solvents in the pesticide that penetrate glove materials the fastest, not the active ingredient itself. Glove materials differ in their resistance to various solvents. Most chemical-resistant items are made of plastic (polyethylene or PVC-polyvinyl chloride) or rubber (neoprene, butyl, nitrile, or natural rubber). These gloves must be at least 14 mils thick, must be unlined, and must have sealed seams.

A rubber glove that qualifies as chemically-resistant if you're applying a wettable powder may not be considered chemically-resistant if you're applying a liquid concentrate. If that new pesticide you're about to use is a (1) dry pesticide (dust, granule, pellet, most baits), or (2) water-based pesticide (wetable powder, soluble powder, dry flowable, some solutions, microencapsulate), any thick plastic or rubber glove is considered chemical-resistant as long as it is unlined and has sealed seams. But if you're using a liquid pesticide that is not water-based (emulsifiable concentrate, ultra-low-volume and low-volume concentrate, flowable, aerosol, invert emulsion) and the label doesn't specify the type of glove, choose protective gloves made of butyl, nitrile, or foil-laminate.

Gloves made of absorbent material like cotton, leather, or canvas are not chemical-resistant, even to dry formulations. They should never be worn when handling pesticides (except in the case of certain fumigants which require the use of cotton gloves). Also avoid gloves that have a lining since the lining will absorb pesticides.

The pesticide label may not specifically require gloves at all, but may say something like, "Avoid contact with skin," or "If skin contact occurs wash immediately with soap and water." This should be a clue that protective gloves would be a good idea. If you choose not to use gloves when handling these products, then you must take precautions and have access to soap and water in case of accidental contamination.



# Meet the Sowbug...He Won't Be Staying Long

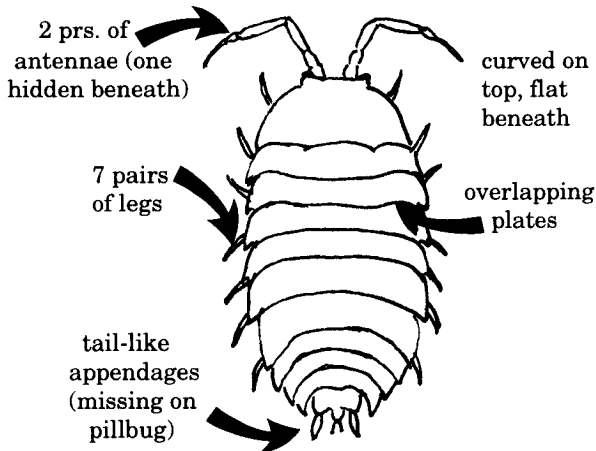
Sowbugs are classified by pest control professionals as occasional invaders since they are outdoor arthropods (they're crustaceans, not insects) that occasionally move indoors. Wet weather (usually in spring) is the main thing that drives them inside.

Outside, sowbugs are found in damp sites around foundations: under leaves, mulch, stones, splash blocks, flower pots, grass clippings, compost, or under bark. They are scavengers on moist, decaying plant materials like overripe fruit. They sometimes feed on small plants and rotting wood. Indoors, sowbugs are found around door thresholds or sliding doors, in garages, crawlspaces, or basements. They enter through small gaps around doors or other openings, or they may be carried indoors in potted plants or firewood. An indoor invasion points to a large population of sowbugs around the foundation.

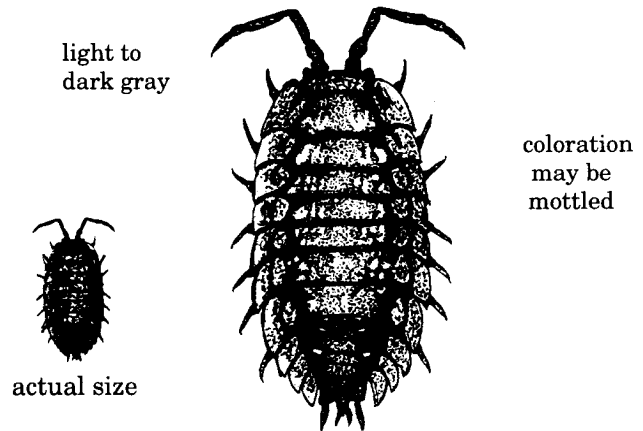
The sowbug is often confused with the pillbug. The key difference is that the pillbug can roll up into a tight ball when disturbed (hence the name). Sowbugs are generally slow moving. They are active at night when humidity is higher and temperatures are lower; they hide during the day. They are about 5/8-inch (16 mm) long.

Since sowbugs don't have the waxy cuticle of insects, they dry out quickly. They survive only a day or two in most indoor environments, so indoor control is rarely necessary. Sowbugs don't bite or do any damage during their brief stay indoors. Outdoor control consists primarily of removing excessive leaves, mulch, or grass clippings that provide shelter and food. Firewood, boards, and stones should be stacked up off the ground and away from building foundations.

## Match the shape



## Match the color



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