



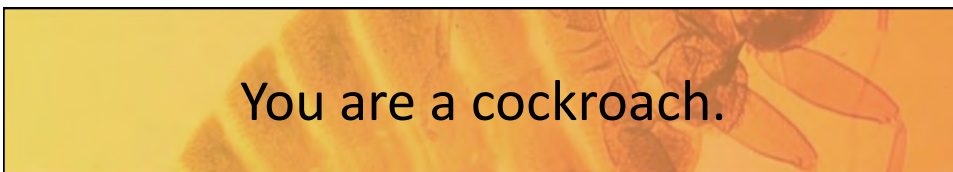
Integrated Pest Management & Bed Bug

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www.StopPests.org

stoppests@cornell.edu [@StopPests](https://twitter.com/StopPests) facebook.com/StopPests



You are a cockroach.



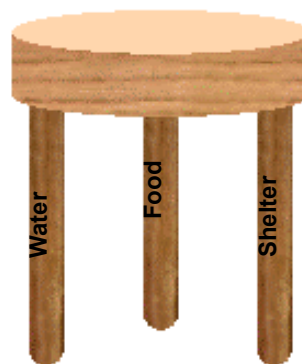
 University of Nebraska
Department of Entomology

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What all pests need

- Food
- Water
- Shelter



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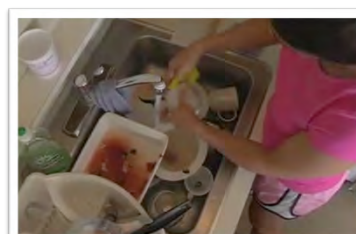
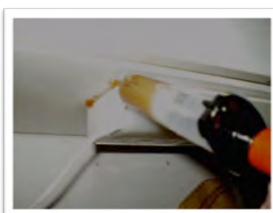
Find pests that get in
before an infestation grows



Take action

Use more than one control method

Methods must be economical and pose the least possible risk to people, property, and the environment



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Integrated Pest Management (IPM)

1. Inspect and monitor
2. Identify
3. Determine the scale of response
4. Respond
 - Non-chemical control
 - Changing people's behavior
 - Chemical control
 - Biological control
5. Evaluate effectiveness

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IPM is not...

- Using only bait
- Applying more than one kind of pesticide
- A certain set of pesticides
- Using spices and herbs
- A service that can be contracted out

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Questions?

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Bed bugs



Fed



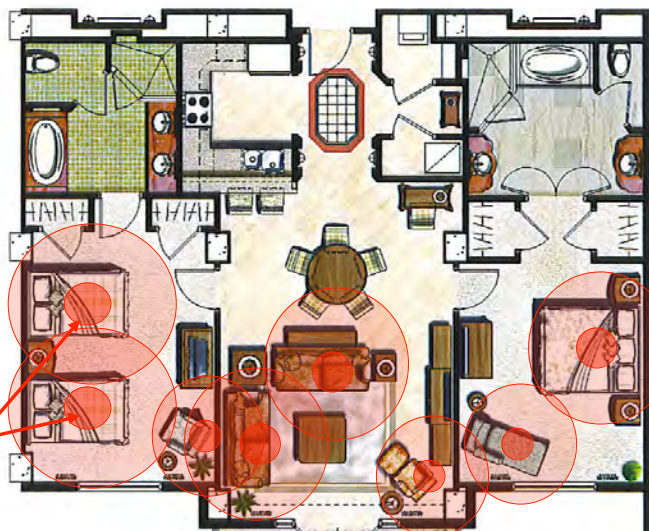
Unfed

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Where bed bugs live

Beds,
sofas,
bedside
tables,
recliners,
picture
frames...

● = Hot Spot



Areas at-risk for introduction and infestation

- Introduction is likely where people
 - frequently travel
 - set down personal belongings
 - sit or lay down for long periods of time
- Infestation is likely where bed bugs can
 - Crawl (upholstered furniture or bedding)
 - Feed on a person for 5 minutes without being detected
 - Hide in cracks or folds

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Areas prone to introduction vs. infestation

3= high risk 2=medium risk 1=low risk

Area	Introduction	Infestation	Total

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Advice for staff, health aides, and contractors

🕷 In units:

- Avoid sitting or placing items on potentially infested surfaces
- Wear a protective layer when moving infested items

🕷 In the main office/community areas:

- Replace fabric-covered furniture that has many crevices with plastic or metal items
- Have residents set their belongings in plastic totes during meetings

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Prevent introduction and spread: residents

- 🕷 Keep coats, backpacks, purses, and bags off beds, recliners, and sofas at home and while out
- 🕷 Inspect used furniture carefully before bringing it home—avoid it if possible
- 🕷 Look for signs when sleeping away from home

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Treatment options

- | | |
|--------------|-----------------------------|
| • Pesticides | • Freezing |
| • Spray | • Liquid CO ₂ |
| • Dust | • Chest freezer |
| • Fumigation | • Vacuuming |
| • Heat | • Isolation |
| • Dryer | • Encasements |
| • Steam | • Clear bags |
| • Container | • Closed plastic containers |
| • Whole unit | • Interception devices |

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Questions?

In-house options (minimum training)

- ☛ Encasement
- ☛ Monitoring
- ☛ Quick (15 min) visual inspection
- ☛ Steam
- ☛ Clothes Dryer
- ☛ Vacuum
- ☛ Heat chamber (FL model)
- ☛ Diatomaceous Earth (APPLICATOR'S LICENSE)
- ☛ Resident training/support

Leave it to the experts

- ☛ Canine inspection
- ☛ Whole-unit heat treatment
- ☛ Pesticide application
- ☛ Thorough inspection
- ☛ Active Monitoring

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Resources by state

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Pest Prevention by Design

Authoritative guidelines for designing pests out of structures





SF Environment
Our Name. Our City. Our planet.
A Department of the City and County of San Francisco



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National Pesticide Information Center

 www.npic.orst.edu



npic National Pesticide Information Center
1.800.858.7378 npic@ace.orst.edu

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Choose your state:
Click the state you live in to find your local resources:




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School IPM


 State programs

 eXtension.org

Resource Areas	ENERGY	FARM	HEALTH AND NUTRITION
COMMUNITY Agricultural and Food Law Community Planning and Zoning Cooperatives Creating Healthy Communities Diversity, Equity and Inclusion Entrepreneurs & Their Communities Geospatial Technology Network Literacy Program Evaluation Volunteer Administration	Farm Energy Home Energy Wood Energy ENVIRONMENT Prescribed Fire Trees for Energy Conservation FAMILY Child Care Companion Animals Drinking Water and Human Health Family Caregiving Food Safety Military Families Parenting Personal Finance Teen Leadership	Ag Safety and Health Animal Manure Management Animal Welfare Apples Bee Health Beef Cattle Blueberries Climate, Forests and Woodlands Corn and Soybean Production Cotton Dairy Forest Farming Freshwater Aquaculture Goats Grapes Hogs, Pigs, and Pork Horses Marine Aquaculture Organic Agriculture Plant Breeding and Genomics Rangelands Sheep Small and Backyard Flocks Small Meat Processors Wood Products	Community Nutrition Education Families, Food and Fitness Healthy Food Choices in Schools Omega-3s LAWN AND GARDEN Extension Master Gardener Gardens, Lawns & Landscapes Water Conservation for Lawn and Landscape PEST MANAGEMENT Feral Hogs Imported Fire Ants Invasive Species Pest Management In and Around Structures Pesticide Environmental Stewardship Wildlife Damage Management YOUTH Ag Zone Science for Youth




 stoppests@cornell.edu

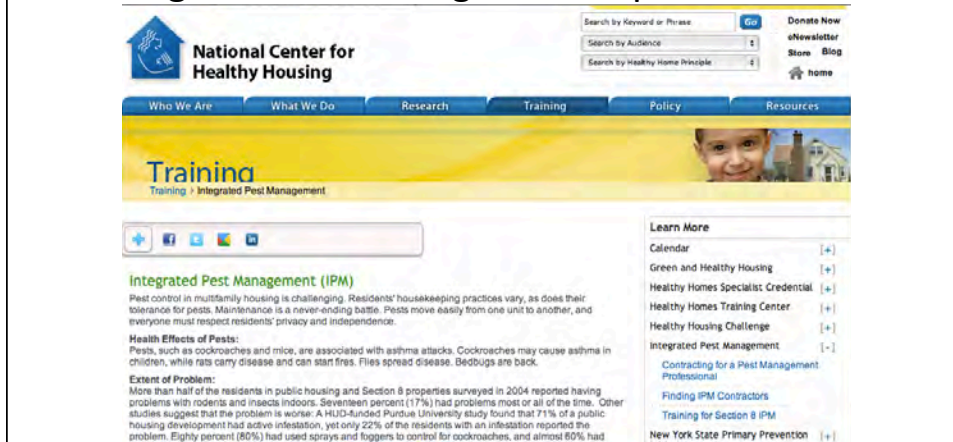
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National Center for Healthy Housing

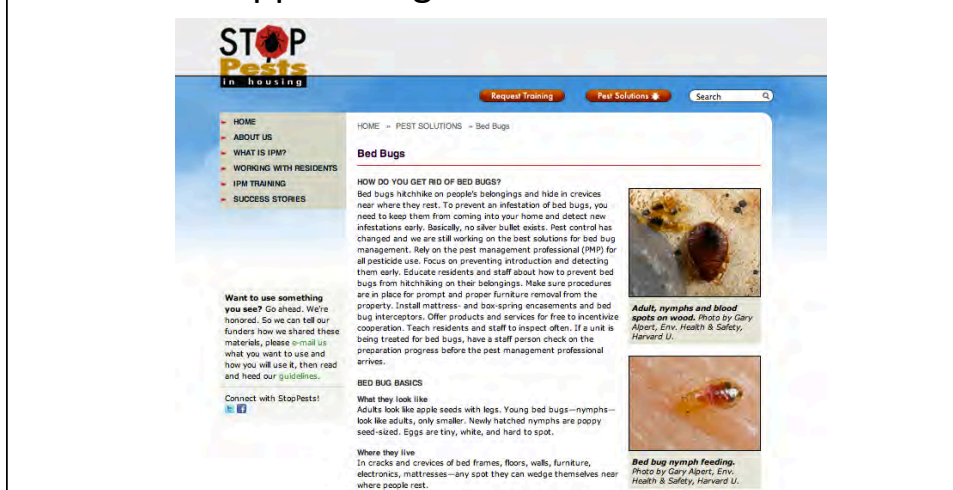
 www.nchh.org/Training/IntegratedPestManagement.aspx



The screenshot shows the National Center for Healthy Housing website. At the top, there is a search bar with options to search by keyword, audience, or healthy home principle. Below the search bar is a navigation menu with tabs for Who We Are, What We Do, Research, Training, Policy, and Resources. The main content area features a yellow banner for 'Training' with a sub-link for 'Integrated Pest Management'. Below this, there is a section titled 'Integrated Pest Management (IPM)' with a brief description of pest control challenges in multifamily housing. A sidebar on the right contains a 'Learn More' section with links to various resources like 'Calendar', 'Green and Healthy Housing', and 'Healthy Homes Specialist: Credential'.

StopPests in Housing Program

 www.stoppests.org



The screenshot shows the StopPests in Housing website. The page is titled 'Bed Bugs' under the 'PEST SOLUTIONS' section. It includes a navigation menu on the left with options like 'HOME', 'ABOUT US', and 'IPM TRAINING'. The main content area provides information on how to get rid of bed bugs, including a section on 'BED BUG BASICS' that describes their appearance and where they live. There are two photographs: one showing 'Adult, nymphs and blood spots on wood' and another showing 'Bed bug nymph feeding'. A sidebar on the left contains a 'Request Training' button and a search bar.

Questions?

Slides will be available at
www.stoppests.org/about-us/conference-presentations/