

Northeastern  
**IPM**  
Center

## Managing Pests in Housing

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**STOP**  
Pests  
in housing

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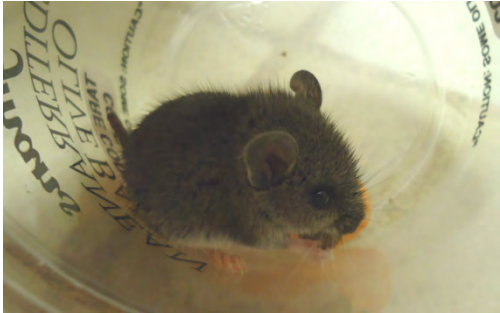


## Making homes healthy

- IPM is part of a nationwide Healthy Homes movement to reduce housing-based health hazards
- A healthy home is:
  - Dry
  - Clean
  - Ventilated
  - Safe
  - Contaminant-free
  - Maintained
  - **Pest-free**

<http://tribalhealthyhomes.org/>

You are a mouse

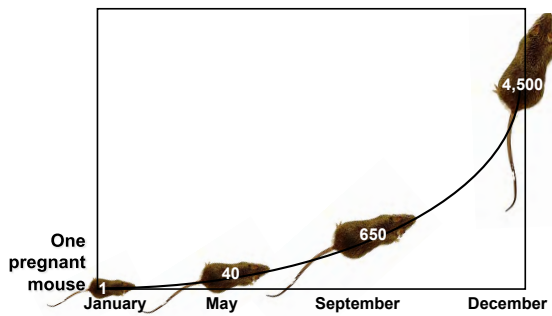


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One mouse, one year...



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Integrated Pest Management

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



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[www.cdc.gov/rodents/cleaning/](http://www.cdc.gov/rodents/cleaning/)

### Cleaning up after rodents

**Urine and droppings**  
Take precautions before and during clean up of rodent-infested areas. Before cleaning, trap the rodents and seal up any entryways to ensure that no rodents can get in. Continue trapping for a week. If no rodents are captured, the active infestation has been eliminated and enough time has passed so that any infectious virus in the rodents' urine/droppings or nesting material is no longer infectious.

Before starting clean up of the space, ventilate the space by opening the doors and windows for at least 30 minutes to allow fresh air to enter the area. Use cross-ventilation and leave the area during the airing-out period.


**First, clean up any urine and droppings**

When you begin cleaning, it is important that you **do not** stir up dust by sweeping or vacuuming up droppings, urine, or nesting material.

- Wear rubber, latex, or vinyl gloves when cleaning urine and droppings.
- Spray the urine and droppings with a disinfectant or a mixture of bleach and water and let soak 5 minutes. The recommended concentration of bleach solution is 1 part bleach to 10 parts water. When using a commercial disinfectant, following the manufacturer's instructions on the label for dilution and disinfection time.
- Use a paper towel to pick up the urine and droppings, and discard the waste in the garbage.
- After the rodent droppings and urine have been removed, disinfect items that might have been contaminated by rodents or their urine and droppings.

**On this Page**

- Urine and droppings
- Dead rodents or nests
- Cabins, sheds, barns, or other outbuildings
- Attics, basements, crawlspaces, and other storage areas
- Heavy rodent infestation
- Air ducts (heating and cooling ventilation systems)




**Pest Prevention by Design**

Authoritative guidelines for designing pests out of structures

**SF Environment**  
Let them see us, not the other way around.

10

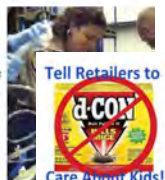
### California Bans Controversial d-CON Products as EPA Stalled by Manufacturer

**25 Mar**

(Beyond Pesticides, March 25, 2014) Highly toxic rodenticides linked to the poisoning of pets, wildlife and young children will no longer be allowed on store shelves in California starting July of this year. According to rules adopted last week by California's Department of Pesticide Regulation (CDPR), "second generation anticoagulant rodenticides," including the chemicals brodifacoum, bromadiolone, difenacoum, and difethialone found in d-CON brand products, will be classified as California-restricted materials, and only allowed to be used by certified pesticide applicators. Attempts by the U.S. Environmental Agency (EPA) to remove these products from store shelves nationwide stalled last year after the manufacturer of d-CON rodenticides, Rackitt Benckiser, sued the agency to delay implementation of the cancellation process.

In July of 2011, the California Department of Fish and Wildlife requested CDPR restrict the use of anticoagulant rodenticides due to numerous incidents involving direct and indirect poisoning of wildlife. Anticoagulants impair blood clotting and eventually cause internal bleeding in target animals. However, rodents can feed on poisoned bait multiple times before death (some are even resistant to the chemicals now), and as a result their carcasses may contain residues that are many times the lethal dose.

Poisoning can occur to nontarget species when predators or scavengers feed on these poisoned rodents. Reports show that federally listed threatened and endangered species, such as the San Joaquin kit fox and Northern spotted owl, have been adversely affected by these chemicals.



**Tell Retailers to Care About Kids!**

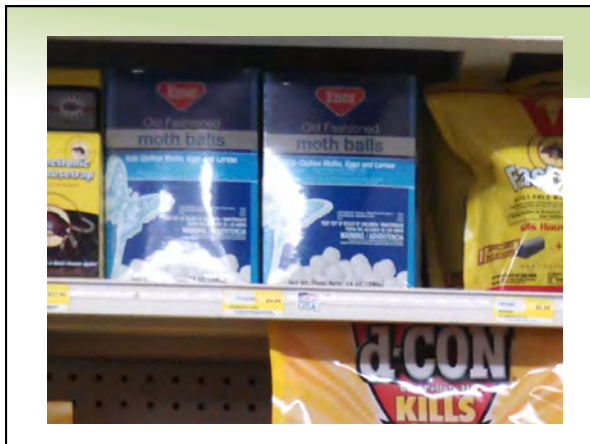
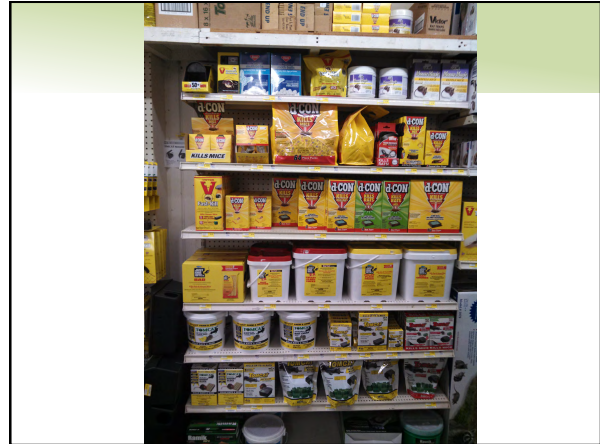
EPA's cancellation order addresses this issue, requiring manufacturers to pull "toxic" first-generation rodenticides from the consumer market. All manufacturers except Rackitt Benckiser, maker of d-CON brand products, complied with EPA's order. Rackitt Benckiser's decision to sue EPA allows stores such as Walmart and Home Depot to continue selling these dangerous products to consumers (except in California beginning July 1).

Beyond Pesticides responded to the irresponsible actions of Rackitt Benckiser by launching the Care About Kids campaign to urge major retailers to stop selling dangerous d-CON rodenticides. In lieu of federal action, Beyond Pesticides argues that retailers have an obligation to stop selling products that EPA has determined are too dangerous to children, pets, and wildlife.

For more information about Beyond Pesticides' "Care About Kids" campaign, see our Rodenticides program page, where you can learn more about the harmful effects of these chemicals and find effective alternatives to their use.

All manufacturer positions and opinions in this piece are those of Beyond Pesticides.  
Source: California Department of Pesticide Regulation, P. Bragg Advocate/News Image Source: P. Bragg Advocate/News





### Educating people about pests

- Policy & paperwork
- Group training
- One-on-one

## Educating kids—school IPM

- Juliann Barta
- Rob Koethe
- Eugene Benoit
- Jessica Hing

## Adult education 101

- Acknowledge experience
- Build new information on past knowledge & experience
- Use relevant content—if they can't use it in the next week, it won't sink in
- Involve in the learning process—a mix of independent and collaborative exercises that are both physically and psychologically comfortable
- Proceed from most important to least important content topics
- Teach less difficult to most difficult within each topic

## Mosquito Management

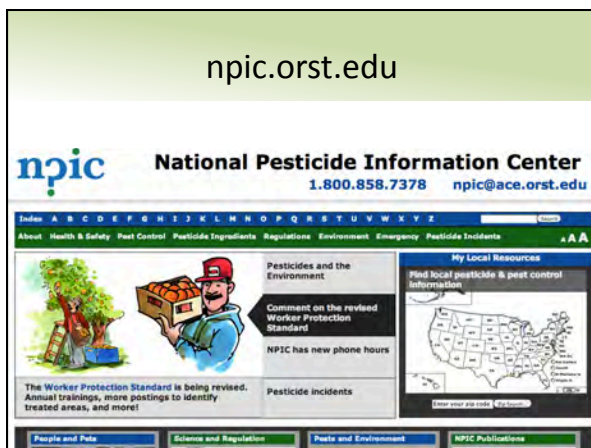
1. Brainstorm with the person next to you
  - P.1 Write tools/techniques/information you know
  - Blank page: Write down any questions you have
2. Ask me your questions
3. As a group we will share strategies
4. Complete you P.1

[www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/index.shtml](http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/index.shtml)

The screenshot shows the website for the Infectious Disease Epidemiology Program, focusing on Vector-borne Diseases. The page is organized into several sections:

- Navigation Menu (Left):** EPI Information, A-Z Index of Infectious Diseases, Contact Us, Disease Reporting, Educational Materials, Media Training, Network Lyme Asset, Publications, Request for Quote, Special Health, Information for, 211, and Other Support Tools.
- Vector-borne Diseases:**
  - Tick Borne Diseases:**
    - Babesiosis
    - Borrelia
    - Ehrlichiosis
    - Lyme
    - Tickborne Relapsing Fever
  - Mosquito Borne Diseases:**
    - Dengue
    - Eastern Equine Encephalitis
    - Malaria
    - West Nile Virus
- Tick Resources:**
  - Tick Bites: Prevention, Removal & Physician's Reference Guide
  - Lyme Disease: Prevention, Diagnosis & Treatment
- Surveillance Reports:**
  - EEE Surveillance Results (2009-2012)
  - Lyme Disease Surveillance Report (2011-2012)
  - Tick Borne Disease Surveillance Report (2011-2012)
  - Mosquito Borne Disease Surveillance Report (2011-2012)
  - Malaria Surveillance Report (2009-2012)
  - Dengue, Relapsing Fever





## Tick Management

1. Brainstorm with the person next to you
  - P.2 Write tools/techniques/information you know
  - Blank Page: Write down any questions you have
2. Ask me your questions
3. As a group we will share strategies
4. Complete you P.2

## tickapp.tamu.edu

## Promoting IPM in Affordable Housing

**Goal**


To improve pest control in affordable housing by teaching everyone who works, lives, and plays in housing how to use integrated pest management (IPM).



[www.StopPests.org](http://www.StopPests.org)
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[youtube.com/user/StopPests](https://youtube.com/user/StopPests)

## StopPests in Housing Program

- Resources for all
  - Webinars
  - Social media: YouTube, Facebook, Twitter, blog
  - Website: pest solutions, training, IPM: A Guide for Affordable Housing
- Free consultation and training



[www.StopPests.org](http://www.StopPests.org)
[stoppests@cornell.edu](mailto:stoppests@cornell.edu)
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[youtube.com/user/StopPests](https://youtube.com/user/StopPests)

## IPM in Multifamily Housing Training



Developed and sponsored by

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[youtube.com/user/StopPests](https://youtube.com/user/StopPests)

## Get StopPests to your community

- Background
  - IPM: A Guide for Affordable Housing*
  - [www.stoppests.org/Guide](http://www.stoppests.org/Guide)
- Get buy-in from housing management
  - [www.youtube.com/user/StopPests](https://youtube.com/user/StopPests)
  - [www.stoppests.org/success-stories/](http://www.stoppests.org/success-stories/)
- Be in touch!
  - [www.stoppests.org/Request](http://www.stoppests.org/Request)



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[youtube.com/user/StopPests](https://youtube.com/user/StopPests)

### Was this useful and relevant?

What two actions are you going to take in the next week to practice IPM in/around your structures?

### Good Luck!



### Appreciation

#### Funders

- Rachel Riley, Government Technical Representative
- U.S. Department of Housing and Urban Development's Office of Healthy Homes and Lead Hazard Control
- U.S. Department of Agriculture's National Institute of Food and Agriculture

#### Employer

Promoting Integrated Pest Management in Affordable Housing: USDA Special 2012-04039



**Organizers and attendees of this meeting ←YOU**