

## Managing Dust Mites

**Barb Ogg**

*UNL Extension Educator*

House dust mites are found in most homes. They are microscopic, eight-legged creatures closely associated with us, but they are not parasitic and do not bite. They don't burrow under the skin, like scabies mites or live in skin follicles, like skin follicle mites.

The concern about dust mites is that people are allergic to them. Symptoms associated with dust mite allergies include sneezing, itchy, watery eyes, nasal stuffiness, runny nose, stuffy ears, respiratory problems, eczema and (in severe cases) asthma. But, there are many other causes of allergies, which include cat and dog dander, cigarette smoke, cockroach droppings, mold and pollen.

How can you find out if you're allergic to dust mites? Consult an allergist and have allergy testing done.

For the record, the dust mite allergen is primarily their tiny feces, a component of dust. These feces are so small they can become airborne and inhaled when dust is disturbed.

### Reducing Exposure to Dust Mites

Reducing exposure to dust mites is not a difficult thing to do, once you realize where dust mites live and what they need to thrive.

To thrive, dust mites need high temperatures (75-80 degrees F) and high humidity levels—70-80 percent relative humidity—and food, which includes dead human skin cells and animal dander.

Humans continually shed skin and lose about 1/5 ounce of dead skin each week. We also spend about one-third of our lives sleeping so high levels of dust mites are often associated with the bedroom, especially bedding and the mattress. Dust mites also eat animal dander so allergens will be plentiful in areas where family pets sleep.

Some actions that will reduce exposure to dust mites include:

- Reduce humidity levels to less



Highly magnified view of a dust mite

American Academy of Allergy, Asthma and Immunology

than 50 percent inside your home, especially in the bedroom. This isn't hard to do in the winter, but can be a challenge during summer months, especially in homes without air conditioning. Studies have shown that air-conditioned homes have ten times fewer dust mite allergens than non-air-conditioned homes. In addition to cooling the house, air conditioning reduces the humidity dust mites need to thrive. Using an electric blanket while you sleep will reduce dust mites by 50 percent.

- Enclose mattresses and pillows in plastic. This will prevent skin cells from penetrating mattresses and pillows where dust mites may be living. Replace feather pillows with synthetic ones.
- Wash all bedding weekly. Research has shown laundering with any detergent in warm water (77 degrees F) removes most dust mite and cat allergen from bedding.
- Limit exposure to dust. Select easy-to-clean furnishings that do not collect dust. Replace wall-to-wall carpeting with hardwood flooring. If you cannot replace carpeting, have it steam cleaned at least once a year, springtime is best. This will prevent a build up of dust mites feeding on skin cells in the carpet during the summertime.
- Vacuum with a water system or one with special dust filters to reduce airborne allergens. Use a high particulate furnace filter.

- Dust with a damp cloth rather than dry dusting. Spraying furniture polish/dusting liquid directly on surface reduces airborne particles by 93 percent compared with dry dusting.
- Avoid pets that produce dander.

### What about Air Purifiers?

It probably depends on the type of air cleaning device. A researcher at the University of Texas-Austin studied ion generating air purifiers which make particles electrically charged to remove them from circulating air. He tested five commercially available ion generators and found they were much less efficient than a HEPA filter-based air cleaning device. For more information on this research, check out: <http://www.utexas.edu/opa/news/2005/09/engineering15.html>

Ion-generating air filters emit significant amounts of ozone. Ozone irritates the lungs and can cause chest pain, coughing, shortness of breath and throat irritation. According to the US Environmental Protection Agency (EPA), ozone may worsen chronic respiratory diseases such as asthma and compromise the ability of the body to fight respiratory infections. The EPA also states manufacturers and vendors of ozone devices often use misleading terms to describe ozone. Terms such as "energized oxygen" or "pure air" suggest ozone is a healthy kind of oxygen. Ozone is a toxic gas with vastly different chemical and toxicological properties from oxygen. For more information about health problems associated with ozone, check out: <http://www.epa.gov/iaq/pubs/ozonegen.html>

### Chemicals

No chemicals are registered for dust mite control, but benzyl benzoate or tannic acid may reduce levels of dust mites. According to the Mayo Clinic, these chemicals can worsen allergies in some people. It is wise to use non-chemical measures around people with serious allergies.

## You Caught Your Mouse — How About Cleanup?

**Soni Cochran**

*UNL Extension Associate*

Most people know they have a mouse in the house when they find droppings. House mice leave 50-75 fecal pellets (droppings) every day. The droppings are usually about the size of a grain of rice, black and are scattered in the area where the mice are exploring.

House mice aren't known carriers of hantavirus, but deer mice have been identified as possible carriers. Hantavirus is a potentially deadly respiratory disease. The virus is shed by rodents in their urine and droppings. Caution should be used when you cleanup after any rodent. Never use a broom or vacuum to cleanup after a mouse.

### Disposal of Dead Mice

First, put on protective latex gloves. Using a spray mist bottle,

spray the carcass and trap with a household disinfectant (like Lysol®) or a 10 percent solution of bleach and water. Spray until wet. Turn a sealable plastic bag inside out, insert your hand, grab and remove the mouse and trap. Turn the bag right side out so the mouse and trap are inside the bag. Seal the bag. Wrap the bagged mouse in newspaper or put it in a box and toss it in a trash can. Spray the area where the trap was placed with the disinfectant and let dry. Carefully remove gloves by turning them inside out and dispose of them with other trash. Wash your hands thoroughly. If you choose to save the trap, follow the procedures above but remove the mouse from the trap as you place it in the plastic bag. Spray the trap and the area where the trap was placed with disinfectant and let it dry. Note: Use Caution - some surfaces might stain when you use the disinfectant.

### Cleaning up Rodent Droppings

Put on protective latex gloves. Spray the area and feces with a disinfectant until wet. Make sure the droppings and the surrounding dust does not become airborne. Never use a broom or vacuum. Wet a paper towel or rag and wipe up fecal material. Dispose of the droppings and cleanup materials by placing in a plastic bag and throwing in the trash. Dispose of your gloves. Wash your hands thoroughly. Note: Use caution — some surfaces might stain when you use the disinfectant.

### FOR MORE INFORMATION

UNL Extension NebGuide G1105 "Controlling House Mice" available online at <http://ianrpubs.unl.edu/wildlife/g1105.pdf> or at the extension office.



Jan. 26-27

The 14th Annual Urban Pest Management Conference will be held Jan. 26-27, at the Cornhusker-Marriott Hotel in Lincoln. This will be an excellent opportunity for people interested in stored grain and processed food management, public health and community/structural pest management to receive updated information from state, regional and national wildlife and insect pest management experts.



Featured speaker Roger Gold, Professor of Urban and Structural Entomology, Texas A&M

A few of the nationally known speakers on the program include Bobby Corrigan, author and rodent control expert; Jerome Goddard, author and medical entomologist, Mississippi; Stephen Kells, University of Minnesota; Roger Gold, Professor of Urban and Structural Entomology, Texas A & M; Frank Meek, Technical Director, Orkin, Inc.; and Dini Miller, Urban Pest Management Specialist, Virginia Tech.

Presentations will include managing cockroaches, termites, rodents, urban birds, trapping vertebrate pests, vector-borne diseases, bedbugs, brown recluse spiders and ants. Several presentations will emphasize low-toxic pest management approaches that can be used in schools, daycare centers, retirement homes and other sensitive environments.

Nebraska Department of Agriculture state certified applicators in Structural (08), Wood Destroying Organisms (08W), Public Health (09) and Fumigation (11) categories can be re-certified by attending this training.

Save \$30 and register for this two-day conference before Jan. 10. Early registration is \$120; late registration is \$150. A registration form can be found at: <http://entomology.unl.edu/urban/UPM%20Conf%20Brochure%202006.pdf>

For more information about this conference, contact Shripat Kamble, UNL Department of Entomology, at 472-6857.

## Beginning Beekeeping 2-Day Workshop



**Saturday, Feb. 18, 9 a.m.–5 p.m.**  
Lancaster Extension Education Center,  
444 Cherrycreek Road, Lincoln

**Saturday, April 8, 9 a.m.–3 p.m.**  
Apiculture lab, Agricultural Research and Development Center (ARDC), near Mead

### On Feb. 18, you will learn to:

- manage honey bees by understanding their biology and behavior
- identify the best Nebraska honey plants
- locate hives for best survival and production
  - manage honey bee diseases

### On April 8, you will learn to:

- install packaged bees
  - assemble a hive
- harvest honey and beeswax
- prepare your crop for market

Registration fee: \$20 per family (family to include parents and siblings living at home). Registration includes refreshments, one workbook and one lunch. Lunch for each additional family member is \$8.

**Pre-registration is required. Call Barb Ogg at (402) 441-7180 to pre-register.**