Managing Insects and Spiders in the Home

Blake Newton, Ric Bessin, Mike Potter, and Lee Townsend, Entomology

Many species of insects and spiders make their homes in Kentucky. Sometimes, they wander into our homes as well. Luckily, most of these creatures are not harmful to people or to property, so there is little need to worry about them. However, a few can damage our homes, eat our food, or even deliver dangerous bites. This guide is designed to help you tell the “bad” bugs from the harmless ones and to show you a few basic steps that you can take to detect the most common indoor pests and to prevent problems before they happen.

This guide is only an introduction. For more detailed information, follow the links in the text that lead to the University of Kentucky’s collection of entomology factsheets (ENTfacts). If you cannot access these files on computer, your county Extension office can print a free copy for you.

Bed Bugs

Although bed bugs were practically eliminated from the United States in the 1940s and ’50s, they are making a comeback today. Populations are now common in Kentucky, especially in multi-unit structures such as hotels, apartment buildings, dormitories, and other buildings where many people come and go. Bed bug infestations are not related to filth or unsanitary conditions; they will infest the most expensive resorts and luxury homes. While bed bugs have not been implicated in the transmission of disease, infestations must be taken seriously. Bed bugs can cause painful bites, and their presence can bring stress and significant expense to a household.

Bed bugs are small, flat, reddish-brown insects that emerge, mostly at night, to feed on human and animal blood. During the day, they hide in the seams of mattresses, behind headboards, between bed slats, and other locations that are adjacent to sleeping areas. They are also sometimes found where people commonly sit and rest, like couches or armchairs. Householders can work to prevent bed bug infestations by taking care while traveling and when bringing secondhand items such as clothing, suitcases, or furniture into their homes.

Diligence can be useful in preventing infestations, but bed bugs and...
their eggs are very small and can be overlooked. Once bed bugs have established inside a home, control will only be effective with the help of a professional. Multiple treatments are often required. If you find insects in a bedroom and are not sure if they are bed bugs, bring them to your county Extension office for confirmation. If you have bed bugs, contact a pest control professional to get the elimination process started.

For detailed travel tips and other information for bed bug detection and prevention, see:

Bed Bugs [http://www.ca.uky.edu/entomology/entfacts/ef636.asp]

Wood-Destroying Pests
Several Kentucky insects can damage the wood in our homes. Creatures like powderpost beetles bore holes in wooden floors and furniture. Carpenter ants sometimes colonize the wooden support structures of a home. It is the subterranean termite, though, that has the best potential to cause major economic damage to a home, barn, or other wooden structure.

Termites
Most termites in Kentucky live in forests. There they perform a valuable service—turning dead trees back into soil. They become pests when they discover and begin feeding on our homes. Termites are especially drawn to moist areas around buildings—such as from leaky faucets, dampness, and poor drainage. Unfortunately, termites can be very difficult to detect.

They do most of their damage underground, behind walls, and in other places that are hidden from view. Many times a householder will not become aware of a termite infestation until they see “swarmers.” Swarmers are the winged stage of a termite. They leave the colony during spring to look for new nesting sites and often enter the living spaces of homes as they move out and away from the hidden wood that they have been infesting. The presence of swarmers doesn’t mean that the termites are gone, though. It means that there are lots more, still hiding and feeding.

The good news about termites is that they do their damage very slowly. If you see swarmers in your home, it is a good idea to take action, but it doesn’t mean that your home is ruined. It can take termites many years to cause serious structural damage. If you suspect that your home is infested with termites, call a pest control professional. Modern termite-control techniques are very effective at eliminating problems and can even prevent future termite infestations.

For more detailed information about termite detection and control, see UK Entomology’s factsheets:

Protecting Your Home against Termites [http://www.ca.uky.edu/entomology/entfacts/ef605.asp]

Termite Control: Answers for Homeowners [http://www.ca.uky.edu/entomology/entfacts/ef604.asp]

Other wood-infesting insects will sometimes damage buildings in Kentucky. Carpenter ants sometimes
hollow out wood for nesting but rarely cause major structural damage. Powderpost beetles are primarily pests of new homes, wood flooring, and furniture. Likewise, they rarely cause major damage, but it is a good idea for householders to be aware of them. For more information on wood-destroying pests, see:

Carpenter Ants [http://www.ca.uky.edu/entomology/entfacts/ef603.asp]
Powderpost Beetles [http://www.ca.uky.edu/entomology/entfacts/ef616.asp]

Ants
Most ant species are not harmful to humans, pets, or to food or possessions, and—unlike carpenter ants, mentioned above—they do not destroy wood. However, several species commonly invade homes. All ants look similar; if you are not sure whether an ant is a carpenter ant, consult your county Extension office for identification. If you see trails of ants in a kitchen, they are usually members of a colony that exists close to your home. In most cases, these ants are simply searching your home for something to eat. Sometimes, their presence can be reduced by removing spilled food and unsealed food containers. It is also a good idea to throw out any packages of food that have been infested by ants. Oftentimes, these trailing ants will disappear after a few weeks without any treatment. Ants foraging inside homes can sometimes be a persistent nuisance, though, and may require treatment. In those cases, over-the-counter ant baits can be effective. If those methods do not work, consult a professional pest control service. They will attempt to locate and destroy the colony at its source. For more information about ants and ant management, see:

Ant Control for Homeowners [http://www.ca.uky.edu/entomology/entfacts/ef619.asp]

Pantry Pests
Several beetles, moths, and mites can infest whole grains or processed foods. Usually, the first sign of a problem is the appearance of small beetles, moths, or caterpillars. Flour beetles, rice weevils, drugstore beetles, Angoumois grain moth, and Indian meal moth are among a host of small insects that commonly infest pantry supplies, pet food, or other stored items such as cereal, flour, rice, beans, nuts, spices and dried fruit. Luckily, these pests are not harmful to humans, and a few simple techniques can be used to control and prevent all of these different species.

The key to controlling all of these pests is to find and destroy all items that have been contaminated by the pests. Look for open or inadequately sealed containers that contain dry food items, such as bags of crackers, boxes of cereal, bags of flour or meal, bags of pet food, open containers of spices or teas, or any other dry organic item, such as bird seed or dried floral decorations. Look for tiny worms, webbing, holes, and little piles of dust. All of these can indicate the presence of pests. If you find one infested item, it is possible that other nearby items are infested as well, so it is a good idea to inspect all dried foods in a pantry. Dispose of all infested items and also thoroughly vacuum the area, including nearby cracks and crevices and the shelves where the foods were stored.

After treatment, you can work to prevent future infestations by maintaining good sanitation and by storing foods in sealed containers. Food products that are purchased in cardboard boxes or bags can be stored in plastic or glass containers that can be sealed tightly. Decorative floral arrangements and bird feed may be treated with heat (155°F for about 20 minutes with the oven door propped open) or in a freezer at 0°F for about a week. Afterwards, decorative items and pet foods that have been de-infested can be kept and reused by the householder.
For more detailed information, see:

**Stored Product Pests in the Pantry**
http://www.ca.uky.edu/entomology/entfacts/ef612.asp

**Controlling Stored Product Pests Using Low Temperature**
http://www.ca.uky.edu/entomology/entfacts/ef635.asp

**Fabric Pests**

Several Kentucky insects feed on fabrics. Clothes moths or carpet beetles will feed on woolens (sweaters, blankets, rugs), furs, taxidermy, or even feathers. They are controlled in a manner similar to pantry pests. A householder should find the infested item and either dispose of it or eliminate the infestation using cold or heat. For more detailed information, see the factsheets below.

**Clothes Moths**
http://www.ca.uky.edu/entomology/entfacts/ef609.asp

**Carpet Beetles**
http://www.ca.uky.edu/entomology/entfacts/ef601.asp

**Thermal Deinfestation of Household Items**
http://www.ca.uky.edu/entomology/entfacts/ef640.asp

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**Cockroaches**

The occasional cockroach shows up in most homes from time to time. Oftentimes these are outdoor dwelling varieties originating from mulch and wood in the landscape, and they are nothing to worry about. Large infestations of German or American cockroaches, however, can contaminate food, spread harmful bacteria and potential disease pathogens, and even cause or exacerbate respiratory illnesses. Fortunately, effective products are available to householders to combat roach infestations. If a householder sees multiple cockroaches in any indoor location, the first step is sanitation. Remove food sources (empty soda bottles, open food containers, piles of crumbs) and hiding places (cardboard boxes and piles of wood or paper). Next, eliminate the roaches using over-the-counter cockroach baits. These products are very effective but must be placed where the roaches congregate. Read the product label for instructions. For detailed information about do-it-yourself control using baits or other methods, see:

**Cockroach Elimination**
http://www.ca.uky.edu/entomology/entfacts/ef614.asp

If over-the-counter methods fail or are not desirable or if a particularly large infestation occurs in a large or multi-unit structure, a pest control professional may need to intervene.

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**Fleas**

In Kentucky, cat or dog owners are likely to encounter flea problems if preventive measures are not taken. Unlike ticks, fleas are highly mobile and will jump from pet to carpet to person and back again. Fleas are able to complete their life cycle indoors, breeding and making new fleas, whereas most species of ticks can only breed outdoors. A pet may bring one tick inside, but it can bring a whole breeding population of fleas into your home. Luckily, fleas are not likely to spread diseases to humans in Kentucky, but their bites can be very annoying, and they can transmit dangerous diseases to pets.

The best way to manage fleas is by using pet-centered flea control. These control methods are sold as pills, liquid drops (often applied to the back of the pet’s neck), or collars. All can be equally effective, but some may work better for some pets than for others. Because of Kentucky’s mild climate, it is best to use these products year-round or as directed by your veterinarian. These treatments are typically also effective against ticks. Visit your veterinarian to find the best option.

If a flea outbreak occurs before this approach is initiated, treatment of the premises (and sometimes the yard) will be necessary too. For this you may want to contact a pest control professional. For more details:

**Pet-Centered Flea Prevention and Control**
http://www.ca.uky.edu/entomology/entfacts/ef628.asp

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Clothes moth, adult and larva (top), carpet beetle, adult and larva (bottom) (Clemson University-USDA Cooperative Extension Slide Series, Bugwood.org)

Wood cockroach (Whitney Cranshaw, Colorado State University, Bugwood.org)

Flea life cycle (Center for Disease Control Archive, Bugwood.org)
Ladybugs

In some parts of Kentucky, ladybugs are a common home invader. Ladybugs, also known as "lady beetles" and "ladybird beetles," are small red or orange beetles, usually with black spots.

Most of the time, ladybugs are beneficial to humans. They are predators that feed on garden and crop pests, including aphids and caterpillars. In the fall, though, introduced Asian ladybugs can become a pest when they are looking for a place to spend the winter. Sometimes, they will enter homes by the hundreds or even thousands. Once inside, they do not infest food or damage possessions, but they can produce a foul odor. They will occasionally bite (the bites are harmless but annoying), and evidence indicates that they may contribute to indoor allergies.

Unfortunately, pesticides do not work very well to keep ladybugs out. The best defense is to seal cracks and crevices and to remove any ladybugs that get indoors, either by hand or by vacuum. For more information about ladybugs inside homes:

Asian Lady Beetle Infestation of Structures http://www.ca.uky.edu/entomology/entfacts/ef416.asp

Crickets

Camel crickets (sometimes called "cave crickets") are common inhabitants of unfinished basements, garages, and other cool, humid indoor locations. Because of their long legs, these crickets are sometimes mistaken for spiders. They do not infest food or damage possessions and they cannot harm humans, but they can be a nuisance. Some householders may wish to consult a professional pest control service, but cricket numbers can be reduced by sealing cracks and crevices and by reducing moisture.

Flies

Houseflies and mosquitoes that occasionally wander indoors can be discouraged by keeping doors and screens closed. A few other types of flies can breed indoors. Fruit flies, moth flies, and fungus gnats all breed in damp organic material and are very common inside homes. If you see small, dark flies inside a home, it is probably one of those three types. They are mostly a nuisance, and all can be controlled by finding and eliminating their breeding sites. Fruit flies are tiny and often tan in color. They often breed in overripe fruit; removing the fruit will eliminate the breeding site and eventually eliminate the problem.

Silverfish

Silverfish, with their silvery scales and quick, fluid movements, look less like bugs and more like marine dwellers. They feed on wallpaper paste, book bindings, and other glue- or starch-like materials. They will also feed on dried foods (just like the pantry pests mentioned above). Sometimes, they don’t eat anything; a silverfish can survive without any food for months at a time. Silverfish are not harmful to humans, and they rarely cause significant damage to property, although they are a threat to antique books, historic wallpaper, carpet, tapestries, and other collectibles that are made
of paper, glue, or other organic materials. In situations where those types of items are kept, it is best to consult a pest control professional. In most other cases, control is not necessary. Silverfish numbers can be reduced by following the general pest-control guidelines (sanitation and moisture control in particular) at the end of this guide.

**Spiders**

UK’s entomology department receives many calls and questions about spiders. People are concerned about these creatures, but in reality, most spiders are harmless. Kentucky is home to hundreds of species of spiders. Wolf spiders, grass spiders, cellar spiders, and house spiders are among the types that are most commonly encountered in homes. None of these are dangerous, except to rare individuals who are unusually sensitive to their bites. Only two species—the black widow and the brown recluse—can reliably deliver a medically significant bite. Both species are secretive and reclusive, and neither is commonly encountered in household living spaces.

**Black Widow**

The black widow is a medium-sized spider with a large, glossy-black abdomen. Sometimes, red markings can be seen as well (especially on the spider’s underside), but the glossy-black color is the most important feature.

Black widows are very common in Kentucky. They are usually found outdoors in piles of rocks, piles of wood, or inside hollow spaces such as empty flower pots, drain pipes, or hollow trees. They are also sometimes found in dark, unheated buildings such as barns and abandoned doghouses. Occasionally they will make their homes inside the dark corners of garages and homes.

The bite of a black widow is very serious, although rare. The venom attacks the nervous system, and the victim experiences a variety of symptoms (pain, rigidity, difficulty breathing) almost immediately. Rarely is the bite fatal, but victims should be taken to the hospital right away. Although black widows are common, they almost never leave their small webs (usually about the size of a grapefruit), and they cannot run or even crawl very well if they are outside of their web. They never roam the insides of homes or get into beds, and, unlike some types of orb-weaver spiders, they never build webs at face-height. Bites typically occur when people accidentally touch a black widow on its web. If care is taken when picking up rocks or firewood and when reaching into dark spaces, black widow bites are easy to avoid.

**Brown Recluse**

Brown recluses are associated with dark, hidden spaces, but they are otherwise very different from black widows. Unlike widows, recluses are more difficult to identify by untrained persons. They look similar to many other brown spiders, such as grass spiders and wolf spiders. Brown recluses are medium-sized brown spiders with long, dark brown legs and a tan or grayish abdomen. They have a distinctive “fiddle” shape on their heads, but the marking is difficult to see clearly without magnification. They are also distinguished by their eyes; most spiders have eight eyes, but recluses have only six. This feature cannot be seen without a magnification.

The bite of a brown recluse is also different from a black widow. Unlike a nerve toxin, recluse venom causes predominantly localized symptoms, the most serious of which are large ulcerated wounds that sometimes develop a few days after the bite. The wounds are sometimes categorized as “flesh eating,” but brown recluse wounds typically do not become very large unless accompanied by bacterial infection—a condition which can complicate any scratch or cut, not just a brown recluse bite. In fact, recent scientific studies suggest that many of the wounds that are diagnosed as brown recluse bites are actually bacterial infections. A bacterial infection is suspected any time a person does not remember being bitten by a spider.

Brown recluses are more common in the western part of Kentucky, but they have been found in most Kentucky counties. If you think you see a brown recluse in your home, take a moment to consider its behavior. Is it running
across the kitchen floor during the daytime? If so, it is probably not a brown recluse but a harmless wolf spider or grass spider. Brown recluses are truly reclusive and tend to roam only at night, and even then tend to crawl next to walls or behind furniture, or inside wall voids, crawlspaces, attics, or other places that are seldom visited by humans. If you suspect brown recluses, contact a professional pest control company for confirmation, or use “glue boards” (available at most farm-supply stores) in areas where you have seen spiders. Bring the spiders that get stuck on the board to your county Extension office for identification. Even if brown recluses are found inside a home, there is no cause for alarm since bites are infrequent.

If brown recluses or black widows are suspected, the best plan is to contact a local pest control professional. They can positively identify the spider and develop a control plan. For more information:

**Common Spiders around Homes and Buildings** [http://www.ca.uky.edu/entomology/entfacts/ef622.asp](http://www.ca.uky.edu/entomology/entfacts/ef622.asp)

**Brown Recluse Spider** [http://www.ca.uky.edu/entomology/entfacts/ef631.asp](http://www.ca.uky.edu/entomology/entfacts/ef631.asp)

**Other Spiders**

Other types of spiders are much more common in homes than black widows and brown recluses. At one time or another, wolf spiders, grass spiders, cellar spiders, and house spiders will make their way into almost every home in Kentucky. None of these spiders are normally dangerous, and control is not necessary unless they are considered a nuisance or if a household member has a sensitivity to their bites (such a condition is very rare). In fact, these spiders can help to eliminate other pests, such as cockroaches, ants, and flies. If control is desired, spider numbers can be reduced by sealing cracks, crevices, and other entry points into the home. Mesh can be installed over vents, for example. A spider population can also be greatly reduced by vacuuming the webs; look for cellar spider and house spider webs in the upper corners of rooms.

For more spider control tips:

**Eliminating Spiders around Homes and Buildings** [http://www.ca.uky.edu/entomology/entfacts/ef623.asp](http://www.ca.uky.edu/entomology/entfacts/ef623.asp)

**Centipedes and Millipedes**

Centipedes and millipedes are not insects, but they are closely related to insects. Both centipedes and millipedes are long-bodied with dozens of legs; they look similar, but their behavior is different. Centipedes are fast-moving predators that feed on small insects; millipedes are slow-moving scavengers that feed on bits of dead plant material and other scraps. Both can be very common inside homes, but neither is cause for concern.

The centipede that is most commonly seen inside homes is the house centipede. This strange looking creature has 14 pairs of very long legs, and it is sometimes seen at night as it races across floors and walls in search of prey. Although their presence can be startling, house centipedes are harmless and can actually help reduce the numbers of other pests, including roaches and ants.
The small black millipedes that sometimes invade homes are usually seen in the fall and spring, sometimes in large numbers. These creatures are often simply looking for conditions that are either moister or dryer, or cooler or warmer, than their outdoor homes. They are often spotted around entry doors and will scavenge for food in places that are close to the floor such as houseplants, spilled food, and even litter boxes. They do not harm people or pets, and they seldom survive more than a few days indoors. For more information about these centipedes and millipedes in Kentucky:

Centipedes [http://www.ca.uky.edu/entomology/entfacts/ef647.asp]
Millipedes [http://www.ca.uky.edu/entomology/entfacts/ef645.asp]

General Indoor Pest Control Tips

As discussed in the examples above, many of the pests covered in this document can be prevented or reduced by taking a few simple steps listed below. For more tips, visit UK’s online factsheet, “How to Pest-Proof Your Home.” ([http://www2.ca.uky.edu/entomology/entfacts/ef641.asp](http://www2.ca.uky.edu/entomology/entfacts/ef641.asp))

- **Sanitation:** Remove spilled foods and dispose of garbage quickly, and do not allow it to accumulate in indoor wastebaskets or in garages or other indoor spaces. Look for spilled food behind stoves, underneath refrigerators, and in other spaces inside kitchens. Do not allow clothing or paper products to decay inside closets or garages. Vacuum carpets and upholstered furniture frequently, especially if there are indoor pets. Do not bring used clothing or furniture into homes unless they are examined and cleaned thoroughly.

- **Don’t store firewood in the garage or stack it against the foundation of the home.**

- **Cracks and Crevices:** Seal entry points of a home, including vents and cracks underneath doors. Many pest control companies will search out and seal cracks and crevices as a service.

- **Doors and Windows:** Make sure that the family knows to keep doors and windows closed. Screening works well to keep flying insects out, but only when they are undamaged and properly closed.

- **Water:** Many pests thrive in wet conditions. Eliminate them by fixing leaky faucets, unclogging gutters, and improving drainage around the foundation. Watch for water damaged wood or sheetrock in bathrooms and kitchens. Make sure that shingles, flashing, and other roof structures are undamaged and working properly. Do not allow piles of wet clothing or paper products to accumulate.

This document focuses on indoor insect and spider pests. For information about mammals (rodents, raccoons, or bats for instance), birds, snakes, or other creatures that may infest homes, contact your local County Extension office.

**Additional Resources**

**Insect Identification Service:** This guide covers only the most common and important insects and spiders found inside homes in Kentucky, but we have over 10,000 species of insects in our state and any one of them can wander into a home from time to time. If you find a pest in your home and you are not sure what it is, bring it to your county Extension office. Many times, they will be able to identify it for you right away. If not, they will send it to the Department of Entomology at the University of Kentucky. After identification, the county Extension office can help you with control options. This identification service is free.

**ENTfacts:** The Department of Entomology at the University of Kentucky maintains an ever-changing library of over 200 factsheets that cover common Kentucky insect pests. These ENTfacts are divided by topic, and you can find the ones devoted to “Home and Health” pests by visiting the website: [http://www.ca.uky.edu/entomology/dept/entfacts2.asp#home](http://www.ca.uky.edu/entomology/dept/entfacts2.asp#home). The ENTfacts are also available at your county Extension office.

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**About the authors**

Blake Newton, Extension Specialist, Youth/4-H Extension Entomology
Ric Bessin, Extension Entomologist, Department of Entomology
Mike Potter, Professor of Entomology, Department of Entomology
Lee Townsend, Extension Entomologist, Department of Entomology
Virginia Wood Cockroach  German Cockroach  American Cockroach

Cat Flea  Camel Cricket  Silverfish

Fungus Gnat  Pomace Fly (Fruit Fly)  Drain Fly (Moth Fly)

House Centipede  Asian Multicolored Ladybug  Millipede
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