

## ELIMINATING SPIDERS AROUND HOMES AND BUILDINGS

Michael F. Potter, Extension Entomologist

Many different kinds of spiders live in and around buildings. Some, such as garden and cellar spiders, construct webs to help entrap their prey. Others, including the wolf spiders, are free-roaming and make no webs. Most spiders are harmless and in fact are beneficial because they prey upon flies, crickets and other insects. They generally will not attempt to bite humans unless held or accidentally trapped. Moreover, the majority of spiders have fangs too small or weak to puncture human skin. Of the hundreds of species found in Kentucky, only the black widow and brown recluse are dangerous. Fortunately, both are relatively uncommon, and have markings which can be used to distinguish them from other non-threatening species.

### Black Widow Spider

Of the spiders capable of inflicting a poisonous bite, black widows are the most notorious. The female is about 1/2-inch long, shiny black and usually has a red hourglass mark on the underside of the abdomen. In some varieties the hourglass mark may be reduced to two separate spots. Spiderlings and male spiders are smaller than the females and have several red dots on the abdomen's upper side.



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Widow spiders belong to the cobweb spider family and spin loosely organized trap webs. The webs are usually found under objects such as rocks and ground trash or under an overhanging embankment. Black widow spiders are not as common in homes as the brown recluse. When found in homes, they are usually under appliances or heavy furniture and not out in the open like other cobweb spiders. Black widow spiders are timid, however, and will only bite in response to being injured. People are usually bitten when they reach under furniture or lift objects under which a spider is hiding.

Black widow venom is a nerve toxin and its effects are rapid. The victim suffers painful rigidity of the abdomen

and usually a tightness of the chest. Blood pressure and body temperature may rise, and sweating, localized swelling, and nausea may occur. In about 5% of the bite cases, the victim may go into convulsions in 14 to 32 hours and die if not given medical attention. First aid for black widow spider bites involves cleaning the wound and applying ice packs to slow absorption of venom. Victims should seek medical attention promptly. Most black widow spider envenomizations respond to intravenous administrations of calcium gluconate or calcium salts. An antivenin is also available for severe cases.

### Brown Recluse Spider

The brown recluse is about the size of a black widow but it is not so readily distinguished from many other spiders. It ranges from a dark cream color to dark brown. The abdomen is darker than the rest of the body. It has a violin-shaped, dark mark on top of the leg-bearing section of the body and therefore is sometimes called the "fiddler or violin" spider. Brown recluse



M. Johnson, Univ. of Kentucky Entomology



Univ. of Florida Entomology

spiders also have three pairs of eyes rather than four pairs as do most other spiders.

The brown recluse roams at night seeking its prey. During the day, it hides in dark niches and corners, where it may spin a poorly organized web. It is shy and will try to run from a threatening situation but will bite if cornered.

People are sometimes bitten while they are asleep because they roll onto a brown recluse while it is hunting in the bed. More often the victim is bitten while putting on a shoe or piece of clothing which a spider has selected for its daytime hiding place.

The bite of the brown recluse is usually painless until three to eight hours later when it may become red, swollen, and tender. Later, the red area around the bite may develop into an ulcerous sore from one half to ten inches in diameter. Healing often requires a month or longer, and the victim may be left with a deep scar. Prompt medical attention can reduce the extent of ulceration and alleviate other complications that may develop. In rare cases, the bite can produce a severe systemic reaction resulting in death.

Persons bitten by a spider which they think is a brown recluse should try to collect the specimen and bring it to a qualified individual for identification. Positive identification by an expert will help the physician decide on the appropriate course of treatment.

### **Control**

Eliminating an infestation of brown recluse or black widow spiders involves two basic principles:

- (1) altering the environment in and around a building to make it less attractive to spiders; and
- (2) finding and destroying as many spiders as possible.

The following measures can be used to control all spiders:

- Routine, thorough house cleaning is the best way to eliminate spiders and discourage their return. A vacuum cleaner or broom effectively removes spiders, webs, and egg sacs.
- Spiders prefer quiet, undisturbed areas such as closets, garages, basements, and attics. Reducing clutter in these areas makes them less attractive to spiders.
- Large numbers of spiders often congregate outdoors around the perimeter of structures. Migration indoors can be reduced by moving firewood, building materials, and debris away from the foundation. Shrubs, vines and tree limbs should be clipped back from the side of the building.
- Install tight-fitting window screens and door sweeps to exclude spiders and other insects. Inspect and clean behind outdoor window shutters.
- Consider installing yellow or sodium vapor light bulbs at outside entrances. These lights are less attractive than incandescent bulbs to night-flying insects which, in turn, attract spiders.
- To further reduce spider entry from outside,

insecticides can be applied as a "barrier treatment" around the base of the foundation. Pay particular attention to door thresholds, garage and crawl space entrances, including foundation vents. Carbaryl, bendiocarb, chlorpyrifos, or any of the synthetic pyrethroids (e.g., cypermethrin, cyfluthrin, lambda-cyhalothrin) are effective, but may need to be reapplied periodically throughout the summer. Wettable powder or microencapsulated ("slow-release") formulations are most effective.

The brown recluse may be found living indoors or outdoors, while black widows are more often encountered outdoors. Thorough inspection of cracks, corners, and other dark, undisturbed areas with a bright flashlight will help determine the location and extent of infestation. Both species construct irregular, nondescript webs. Indoors, pay particular attention to basements, attics, crawl spaces, closets, under/behind beds and furniture, inside shoes, boxes of stored items, and between hanging clothing. Brown recluse spiders also may be found living in drop ceilings, behind baseboards, and inside ductwork or registers. Another way to detect infestations in these areas is to install glueboards or sticky traps. These devices can be purchased at grocery or farm supply stores. Placed flush along walls and in corners, glueboards and sticky traps will capture large numbers of spiders.

Brown recluse and black widow spiders also live outdoors in barns, utility sheds, woodpiles, and underneath lumber, rocks, and accumulated debris. To avoid being bitten, wear work gloves when inspecting inside boxes or when moving stored items.

Each of the six management tips noted above for spiders in general are also useful against the black widow and brown recluse. Removal of unnecessary clutter is especially helpful in making areas unattractive to these pests. Indoor infestations of brown recluse and black widow also warrant treatment with insecticides. Insecticides should be applied into areas where spiders are living, making an attempt to contact as many spiders and webs as possible with the spray. Spot treatment with synthetic pyrethroids such as cyfluthrin, cypermethrin, or lambda-cyhalothrin are especially effective. Most household insecticides with spiders listed on the label will also kill spiders provided the spider is treated directly. In inaccessible or cluttered areas such as attics and storage sheds, total-release foggers or aerosols containing synergized pyrethrin or synergized pyrethroids (e.g. resmethrin, sumithrin, cyfluthrin) will have a better chance of contacting spiders that are hidden.

Severe infestations of brown recluse or black widow spiders require specialized skills and equipment to

eradicate. In these situations, it would be prudent to call a professional pest control operator.

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ENT-30 Dangerous Spiders and Their Control