



Spiders

Important Biological Facts

General Information

- Spiders are “arachnids” rather than insects. Spiders have 8 legs (insects have only 6) and only 2 body regions—the cephalothorax (head and thorax) and abdomen. Insects have 3 body regions—head, thorax, and abdomen.
- All spiders are predators and feed mostly on live prey, although they can also feed on dead animals, insect eggs, and even pollen and nectar.
- Spiders provide great benefit to humans by reducing insect populations.
- Not all spiders build webs to catch their prey. Some go out hunting for their food while others lie in wait.
- Spiders are shy animals and seldom bite people. When they do, it is usually the result of the spider being trapped or squashed. Many of the reported spider bites are most likely caused by mosquitoes, bed bugs, assassin bugs, ants, ticks, dermatitis, or other conditions.

The Black Widow (*Latrodectus mactans*)

The main spider of concern in this area is the black widow. Brown recluse spiders do not live in California, although it is possible for them to be transported here from other parts of the country on furniture or other goods.

Distinguishing Characteristics

- The females are usually shiny black with a red hourglass marking on the underside of their abdomens.
- The markings of young black widows are variable and can include orange, white, yellow and red bands and spots. As they grow, the spiderlings acquire more black markings.
- Mature male black widows are half the size of the female and have markings similar to those of the spiderlings.

The mouthparts of the male are not strong enough to bite humans.

- The female makes an untidy and coarse web in dark, protected areas that are usually only a few feet above the ground.

Black Widow Feeding Behavior

- Female black widows seldom leave their webs. They wait for prey to come to them. Many times the male will remain in the web with the female after mating and feed on food she has caught.

Potential Danger from Black Widows

- Female black widows are shy and retiring and must be seriously provoked before they bite.
- Their bites are rarely fatal (less than 1% of the time).
- Young children, the elderly, and people with cardiovascular problems are most at risk for serious complications.

Where Black Widows are Found

In general, these spiders prefer areas close to the ground that are dark, dry, protected, and situated in the paths of the insects they are feeding on. The following are some examples:

- Lower shelves and door jambs in cupboards, closets, and storage sheds
- Small cracks and crevices in the foundations of houses, garages, sheds, and other outbuildings
- The undersides of outdoor furniture
- In and around materials and boxes stored in garages and sheds.
- In and around materials stored outside, especially those that have stood unused for long periods of time. Examples include flower pots, lumber piles, firewood, stones, rubble, and machinery.
- Along railroad tracks

Summary of SPIDER Management Techniques Compatible with an IPM Program

Monitoring

- For black widows, monitor at night with a flashlight, both indoors and out. Look in their preferred habitat (see page 1). At night females move to the center of their web and are easier to see.
- For other web-building spiders, look for the presence of webs.
- Look for insect infestations inside the building—spiders may be nearby.

Physical/Mechanical Controls

- Exclusion
 - Make building repairs.
 - Caulk cracks and crevices.
 - Fill gaps around pipes, cables, and wires both inside and outside the structure.
 - Weather-strip doors and windows.
 - Install insect screens on doors, windows, and attic and foundation vents.
- Vacuum up spiders, webs, and egg cases—this is the primary control technique for black widows and other web-building spiders.
- Remove webs with long-handled cleaning devices.
- Exterior lighting
 - Replace mercury vapor lights with sodium vapor lights. (These are less attractive to the insects that spiders eat.)
 - Use yellow light bulbs in outside fixtures. (These are also less attractive to insects.)
- Ventilation
 - Insure proper ventilation in attics and crawl spaces to reduce excess moisture and therefore the insects that spiders feed on.

Sanitation/Habitat Modification

- Reduce hiding places for spiders.
 - Remove piles of debris, lumber, flower pots, stones, rubble, etc.
 - Move firewood as far as possible away from the building. Store off the ground and cover with plastic to keep dry.
 - Cut vegetation at least 18” away from building, especially vines and heavy ground covers such as ivy. Keep grass short near buildings.
- Improve storage practices.
 - Keep storage areas tidy and orderly. Eliminate clutter, especially books, papers, lumber, etc. that are stacked on the floor.
 - Store items in sealed boxes if possible, off the floor and away from walls.
- Vacuum areas frequently, especially if black widows are a problem.
- Control insect populations that spiders may be feeding on, such as ants, roaches, flies, and fleas.

Devices

Note: New products are constantly coming on the market. Brand names listed are for example only. No endorsement of specific products is intended nor is criticism implied of similar products that are not mentioned.

DEVICE	NOTES
Vacuum	Use a vacuum with a HEPA filter. The Lil' Hummer from Miracle Marketing Corp. uses a HEPA filter, can be carried as a back pack, and comes with various accessories for pest control.
Webster	This is an oversized bottle brush attached to an extension pole for removing webs.

For more information on pest management, call the Marin Dept. of Agriculture at 415-499-6700.