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The Black Widow and Other Spiders



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THE BLACK WIDOW SPIDER is found in practically all parts of the United States. Although found in all parts of Oregon, it occurs in greatest abundance east of the Cascade Range. This spider does not enter houses often, but it is frequently found in garages, sheds, outdoor toilets, manholes, culverts, and similar places. It is also found under rocks, in hollow logs, stacked lumber, boxes, woodpiles, and in animal burrows. It feeds on insects and other small creatures.

The black widow spider is the most poisonous spider in the United States. It is the only spider native to Oregon whose bite causes severe poisoning in humans. There are many other kinds of spiders in Oregon. These seldom bite, and if they did would cause only minor irritation. The brown recluse spider, feared in some parts of the United States, is not found in Oregon. There are authentic records of a few deaths resulting from the bite of the black widow spider. Fortunately this spider is very shy and retiring. Bites usually occur as a result of accidentally squeezing a spider when picking up an object to which it is clinging. Bites may occur when putting on clothing or shoes in which a spider is hidden. The mature male does not attack prey and will not bite.

The bite is inflicted by two stout jaws which work sideways. The tip of each jaw is provided with an incurved, needle-like tooth, through which the poison is injected. Poison glands are in the head near the base of the jaw. The spider often has difficulty piercing tough skin. The bite usually causes a stinging sensation at the point of puncture which is marked by a tiny red spot, sometimes surrounded by a whitish wheal. Within a few minutes to an hour or more, sharp pains develop in the region of the bite and there may be swelling. If the bite is on a finger, the aching pain progresses up the arm to the shoulder and finally reaches the chest. In cases of acute poisoning, the pain may even extend to the hips and the abdomen may become rigid. Breathing may be forced and irregular, accompanied by muscular contractions. The venom has a retarding effect on the heart, sometimes

markedly slowing its action. If bitten by a black widow spider, see a doctor. If possible, the spider involved should be collected and referred to an entomologist or other qualified biologist for identification.

The female black widow spider is shiny jet black on the upper surface of the body. On the underside there is a characteristic red mark shaped like an hour glass. The body of a full grown female is about $\frac{1}{2}$ inch in length, with an overall spread, including the legs, of approximately $1\frac{1}{2}$ inches. The male usually has light streaks on his abdomen. It is recognized readily by the knob-like appendages which it carries in front of its head. The male is always considerably smaller than the mature female, and has an overall spread of about 1 inch. After mating, the female spider frequently ensnares and eats her mate; hence the "widow."

The web of the black widow spider is loosely woven, irregular, and made up of rather coarse strands. The webs are frequently at or near the ground level. Three to four hundred eggs at a time usually are laid and placed inside a dense, whitish, silken ball the size of a large pea. The eggs hatch in three to four weeks, and the tiny spiders scatter over the web. The species is very cannibalistic, and most of the young are devoured before they reach maturity. The life cycle from egg to maturity requires at least four months. Overwintering in the immature stage prolongs the time for completion of the life cycle. Mature spiders may be present throughout most of the year, but they are most abundant in the late summer and fall months.

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Control Measures

1. When working where black widow spiders may be present, wear gloves.
2. Remove loose brick, tile, wood, boards, and trash where spiders may live or hide.
3. Use a spray containing chlordane, dieldrin, or DDT. Mix the sprays as suggested in the following chart:

Spray Mixtures

Insecticide	Amount to mix with one gallon of water
Chlordane (44% E.C.)	½ cup
Dieldrin (18% E.C.)	½ cup
DDT (25% E.C.)	1 cup
DDT (50% W.P.)	1 cup

E.C. = Emulsifiable concentrate

W.P. = Wettable powder

Thoroughly spray areas outside the house where black widow spiders or other spiders are troublesome or abundant. Avoid wetting vegetation with sprays prepared from the emulsion concentrates. Emulsion concentrate sprays of this concentration may injure tender foliage. The sprays kill spiders by contact at the time of application, and if thoroughly applied they leave a residue that continues to kill for several weeks. The sprays also help control other undesirable insects,

including boxelder bugs, grass bugs, root weevils, and sowbugs which sometimes enter homes during the fall.

Household pressurized sprays containing DDT, diazinon, chlordane, lindane, or ronnel are available, ready to use, and they can be applied in basements or other locations inside the house.

Use Pesticides Safely

Follow the manufacturer's precautions on the pesticide labels. These are not intended to frighten the user, but to impress upon him the need for careful use of pesticides.

- Store pesticides in a safe place, out of reach of children.
- Destroy empty containers or those without labels.
- Do not keep pesticides in beverage bottles or other containers previously used for food or drink.
- When mixing and using pesticides, avoid getting them on your skin; wash your hands after spraying.
- Do not use household sprays near an open flame.
- If household sprays get on asphalt tile floors, wipe up immediately.