

Carpenter Ants and Their Control

Of the approximately 100 different species of ants found in Iowa, the most destructive are the carpenter ants. Most carpenter ants are large and shiny black, although some species are dark brown or reddish and medium sized. These ants can cause major structural damage when they tunnel in wood to construct their nests.

Identifying Carpenter Ants

Carpenter ants are some of the largest ants commonly found in Iowa. They vary in length from 1/4 inch (6 mm) for the smallest worker to 3/4 inch (18 mm) for a queen. All have constricted (i.e., wasplike) waists, elbowed antennae, and large abdomens, and some have wings (Figure 1).

Wingless worker carpenter ants are distinguished from other ant species by the smoothly arched shape of the top of the thorax (Figure 2).

Winged swarmer carpenter ants may be noticed in spring or late summer. These swarmers are often confused with termites because the two look similar. Figure 3 shows the differences in the waist, antennae, and wings of ants and termites.

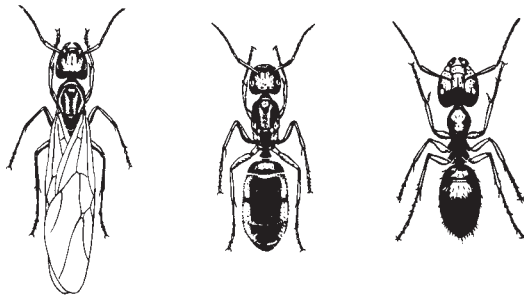


Figure 1. Carpenter ants may be winged or wingless. Size and shape of the ants also may vary.

smoothly arched thorax



Figure 2. Carpenter ant workers have a smooth arch along the top of the middle body section.

Carpenter Ant Habits

Carpenter ants are social insects that live in colonies. Each colony lives in a nest of large, irregular chambers and tunnels excavated inside stumps, logs, hollow trees, dead limbs, posts, poles, porch columns, window and door frames, building framing, and other wood. Carpenter ants prefer wood that is naturally soft or wood that has been softened by decay (wood rot). Moisture and decay facilitate initial tunneling by the ants, but are not required for nesting. Nests may extend into dry, sound lumber. Carpenter ants may nest in existing cavities such as hollow doors or in spaces around windows and doors.

Unlike the nests of termites and wood-boring beetles, carpenter ant galleries are free of soil and debris, and are mostly free of sawdust. The walls of the nests are usually very smooth and clean. Coarse sawdust and other debris from the nest are discarded in piles outside the nest.

Carpenter Ant Biology

Like all ants, carpenter ants have a complete life cycle. Eggs laid by a reproductive female (queen) hatch into white, legless, grublike larvae. These are cared for by the workers (nonreproductive female adults). The larvae live for about three weeks before changing into pupae. Carpenter ant pupae are encased in a silken cocoon.

Workers are the most numerous members of the colony and are responsible for nest construction, foraging, and caring for the larvae. Mature colonies may have as many as 2,000 to 3,000 workers. Winged adults (male and female swarmers) emerge from well-established colonies and fly off to mate and establish new colonies.

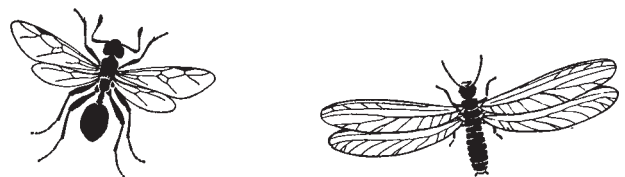


Figure 3. Winged carpenter ants have bent antennae, narrow waists, and small black wings. Winged termites have straight antennae and waists and four wings of equal size.

Carpenter ants do not eat wood. They are scavengers that eat other insects, but in the house will feed on all food scraps, especially syrups, honey, jelly, sugar, meat, grease, and fat. Food is carried back to the nest where it is shared with the queen, developing larvae, and nonforaging workers.

Carpenter Ant Control

Efficiently eliminating carpenter ants from a house requires locating their nest(s). If the nest can be located, a small amount of insecticide sprayed or dusted directly into the nest will provide effective control. Damaged or decayed wood should be replaced and any moisture problems corrected.

Locating a carpenter ant nest is difficult. Check for moisture problems at construction joints, flashings, around window and door frames, and near plumbing. Look for accumulations of coarse sawdust and debris discarded by the ants. Watch the ants at night to determine specific sites where they are most abundant; this will probably be near the nest site. Carpenter ant nests may be located inside or outside the structure. However, if the ants are observed in the house during winter months, it indicates the nest is somewhere in the walls or floors of the heated part of the home. Listen for rustling or scraping sounds coming from within infested wood; these noises are sometimes audible in a quiet house or with a stethoscope.

Treating the nest may require the lifting of molding strips or framing, or drilling small holes through walls or siding to reach the nest. Nests discovered during remodeling can be sprayed to halt ant dispersal. Drilling holes to inject insecticide into all wall voids may be of limited benefit, especially if the walls contain insulation. Monthly spray treatments are not recommended for carpenter ant control.

If the nest cannot be located for treatment, then a comprehensive insecticide treatment in the area visited by the foraging workers can be used. Treat cracks and crevices, room edges, and potential entry points such as windowsills. If enough wandering workers can be killed, the entire colony will gradually die out. Barrier treatments outdoors are only useful for ants invading from outside.

Insecticides for Carpenter Ant Control

Many insecticides can be used for a carpenter ant nest treatment, depending on the nest's location. If the nest is in the house, ready-to-use, household insecticide products should be used. Sprays are usually identified as "ant and roach killer" and come in aerosol or pump dispensers. Dusts containing boric acid, diatomaceous earth, and silica aerogel also can be used. Do not use lawn and garden insecticide products indoors. Baits that are effective against other kinds of ants do not control carpenter ants.

Outdoor treatments should include a wide barrier along the outside of the foundation and direct nest treatment, if possible. Use diazinon, Dursban, or Sevin or other lawn insecticide according to label directions.

Carpenter Ant Prevention

The following practices will help prevent carpenter ant infestations in homes.

- Correct moisture problems such as leaky roof or plumbing, poorly attached flashing, sagging rain gutters, and so forth.
- Ventilate crawl spaces to reduce wood decay.
- Replace rotted, water-damaged wood within the structure.
- Eliminate wood-to-ground contacts that lead to wood rot of lower siding boards and sill plates.
- Remove dead stumps and trees. Remove board piles and old firewood.
- Store firewood off the ground and away from the house.
- Trim trees and shrubs that touch the house.
- Patch and seal points of entry such as cracks and gaps in the foundation, loose-fitting windows, doors and screens, and shrunken or loose caulking.

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