Controlling Carpenter Ants

Carpenter ants are serious pests of buildings in Oregon, particularly west of the Cascade Mountains. Although they normally excavate in logs, stumps, and hollow trees, these ants become pests when they move indoors.

Unlike termites, carpenter ants do not eat wood, and so they kick out the sawdust-like chewings during nest building. This is a sure sign of infestation by this insect—termites and wood-boring beetles do not make sawdust.

Carpenter ants do not restrict their nesting activities to wood. They can establish nests in any material they can bite into with their mandibles—insulation, paper, bark, and wood product mulches, for example. Nests have even been found in stored clothing and sleeping bags. In some instances, these ants will carry nest-building material, such as fir needles, into a wall space or attic.

Signs of infestation
- small numbers of ants of varying sizes foraging around or in the home;
- piles of sawdust-like borings visible under porches, in basements, or emerging from cracks or crevices between walls and partitions;
- slit-like holes in woodwork, especially window and door casings;
- large black ants in the house—perhaps large winged forms appearing in the house in late winter and spring; and
- faint rustling in the walls, floors, or woodwork that you notice at night when it is quiet or when you strike nesting sites sharply.

How to recognize them
Carpenter ants are large black to red-and-black ants. The size varies in workers from 6 to 13 mm; queens are larger, up to 18 mm. Ants have a constriction (thin waist) between thorax (where legs originate) and abdomen. winged, there are two pairs of membranous wings that extend beyond the tip of the abdomen. The front wings are much larger than the rear wings.

Carpenter ants are frequently confused with dampwood termites. Both insects live in colonies and mine wood. Since they are controlled in different ways, it is important to distinguish between them.

Termite workers are yellowish to grayish white, up to 20 mm long, short-legged, rather non-moving insects that spend their lives hidden from view, unless their mines are broken open.

Reproductive termites are brown, thick-waisted, and have long wings, approximately equal in length. The antennae of termites are short and straight (those of ants are angled). They fly during warm, humid evenings in the fall.

What carpenter ants do
Carpenter ants commonly tunnel in building timbers. With a longstanding infestation, damage may require extensive repairs. Usually, only minor repairs are needed. If you find the infestations soon enough, all that may be needed is to get rid of the ants.
Carpenter ants mine building timbers, causing serious damage if they're unchecked.

New colonies are established either by a lone queen or by migration of an existing colony. The latter is common in houses. Colonies disturbed by the clearing and grading of building sites often migrate. Houses near woods are most likely to become infested.

Usually, carpenter ants enter a house through openings around the foundations. They seem to prefer moist, rotting timbers, but they will readily mine sound, dry wood any place in a house. However, ants may enter through plumbing or wiring access points, or they may travel into the structure from trees overhanging the roof.

Among the commonly mined portions are porch pillars and supporting timbers, sills, girders, joists, studs, and fascias. The ants often establish colonies in masses of fir needles or other refuse within walls, under floors, in attics, and in other undisturbed places.

Carpenter ants are destructive in several other ways. They occasionally damage telephone poles. They damage boxes and other wood products in storage. By mining the heartwood of conifers in forest plantations, they cause millions of dollars of damage each year. Similarly, they mine and weaken orchard and ornamental trees. They mine and kill young conifers in forest plantations. By tending aphids for honeydew, they encourage these garden or ornamental pests.

Besides being destructive, carpenter ants in houses are a nuisance, crawling over things, getting into food, and periodically swarming in the living quarters.

Ant control

If you locate a nest, you can remove it with a vacuum, then burn the insecticidal dusts, wettable powders, and granules. Unfortunately, you can’t always find the nest or nests. In this case, control is indirect. Place insecticides very carefully, to form chemical barriers that foraging ants must cross in their search for food. But never treat the entire structure.

The ant contaminates its body with the insecticide and carries it back to the nest where other ant stages are poisoned. Slow-acting, persistent insecticides are best suited for this approach.

Insecticidal dusts are often used between walls (in wall voids), in attics, and in other areas where water-based sprays might cause moisture problems and where emulsifiable sprays (with strong solvents) might harm fabric, wallpaper, or tile. Treat the line where your foundation meets the soil: Treat it inside, if you can reach it through a crawl space; treat it outside, along the walls and entries. Dursban and diazinon are commonly used chemicals for this purpose. Formulations available for the homeowner include EC (emulsifiable concentrates), wettable powders, and granules.

For indoor use, the most commonly available ant-killers are aerosols containing Baygon or Vapona and dusts containing bendiocarb (active ingredient). Boric acid powder packaged as an insecticide is effective. Follow the label for correct and safe use.

How to prevent infestation

A tightly constructed house with concrete foundation, good clearance, and a full basement with good ventilation is least subject to infestation.

- Remove logs, stumps, and waste wood near and under the house.
- Destroy all known colonies of carpenter ants within 100 yards or so of the house.
- Do not bring carpenter-ant-infested fuel wood into the house.
- Do not build over stumps, logs, or sizeable pieces of wood.
- Check for signs of ants annually since presently registered insecticides do not offer long term protection. A structure may be infested.

Use insecticides safely!

- Read manufacturer's label carefully and follow the instructions.

Avoid contact with food.

- Do not use household sprays near an open flame.
- If household emulsifiable sprays get on asphalt tile floors, wash up immediately.
- Store all insecticides out of reach of children and pets.

Open insecticide containers completely. Rinse "empty" containers, and fuse rinse water in spraying foundation and access points. Wrap empty, rinsed containers in several thicknesses of newspaper and dispose of them in the garbage can.

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This publication was prepared by Joseph Capizzi, Extension entomologist, Oregon State University. The mention of trade-name products does not mean any endorsement of these products by the Oregon State University Extension Service, and the fact that other products are not mentioned does not mean any discrimination against them.

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