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Carpenter Ants

Carpenter ants are destructive pests of wood. Although they can damage dry wood, they almost always attack where moisture continually accumulates in wooden structures. Especially vulnerable are decks, porches, roofing, wood behind leaky gutters, and wood around plumbing in kitchens and bathrooms where leaks or condensation may be trapped and absorbed. Untreated fence posts and



building foundation lumber in contact with the ground also absorb large amounts of moisture from the soil and are susceptible to ant attacks. Ants enter wood through cracks or normal openings between siding and sheathing or between flooring and sub-flooring. In trees, they usually enter through trunk wounds or rotting stubs of broken branches and extend their galleries from the decaying portion into the sound heartwood. Carpenter ant attack adds to the harmful effects of wood-rotting fungi.

Symptoms

The presence of otherwise unexplained sawdust beside a house timber, pole or tree may indicate that carpenter ants are at work. These ants chew wood into small fragments as they create tunnels, then discard the "sawdust" outside the nest. They use tunnels as shelter to breed in and as a home base for foraging activities. Carpenter ants feed on insects, sweet secretions of insects and plants, and food residues inside homes. These ants are mainly nocturnal, but may be seen in shady areas, on cloudy days or indoors during the day. Carpenter ants generally do not roam more than 30 feet from their nest.

Damage

The tunnels that house a carpenter ant colony are created principally by workers that gnaw at the soft portions of the wood parallel to the grain. The inner surfaces of these tunnels, or galleries, are clean and appear to be coarsely sanded. Unlike termites, carpenter ants do not eat wood. Carpenter ants are most active during warm months. In heated buildings, ant activity may continue later into the fall and begin earlier in the spring than is usual with outdoor colonies.

Life Cycle

Mating takes place in flight during the late spring and early summer, when winged males and females leave an old colony. The male dies soon after mating and the female, called the queen, locates a nesting place in wood. She excavates a small chamber where she secludes herself and lays her first eggs. When the eggs hatch, the queen nourishes the larvae until they are fully developed. The larvae enter a pupal period within a tan-colored cocoon before becoming adults. Development from egg to adult takes about three months, depending on temperature conditions. First-year broods are small, sometimes consisting of only 10 to 20 ants. In following years, colonies often increase to 2,000 to 3,000 ants. It is from these large colonies that winged males and females swarm, mate and start new broods.

Prevention

To reduce or prevent carpenter ant damage, minimizing moisture is imperative. Fortunately, there are simple measures to keep wood dry: use construction that permits wood to shed water quickly and to dry easily. Avoid placing wood in contact with the ground. Separate wood from concrete or masonry with a waterproofing compound, such as coat tar or asphalt. Provide adequate ventilation in damp areas. Provide vapor barriers when insulating outside walls. Keep gutters and downspouts clear of debris. Inspect the structure regularly to detect moisture and quickly repair leaks in roofing and siding, flashing around chimneys, skylights and gables. Also regularly check these danger points: porches, steps, columns, corner supports and wood near "sweaty" plumbing leading to bathrooms, kitchens and laundry rooms where moisture may condense. To prevent carpenter ant attacks in trees, prune carefully to induce rapid wound closure. Good growing conditions should be maintained.

Management

It may be difficult to manage carpenter ants when their colonies are well hidden inside wooden structures, but the ultimate goal is to locate and eliminate the nest and destroy the queen. For best results, carpenter ant colonies may be exterminated by vacuuming out the nest and destroying the contents or by a thorough application of insecticide in and around the nest.

Chemicals are only temporarily effective and should be used only as a last resort. Baits are often the best choice. Terro Ant Killer II, a liquid borax bait, has shown good results in research trials. Other baits specifically for carpenter ants are also available, including Maxforce, Combat, or Raid. Use as the manufacturer directs.

Alternatively, treat the nest site with boric acid, deltamethrin, lambda-cyhalothrin, or permethrin. Follow label directions carefully. If you cannot locate or treat the colony yourself, you may want to enlist the services of a pest management professional.

Unless the source of moisture is eliminated as described above, the wood will eventually become susceptible to a new attack. Fix leaks in the roof and pipes, clean out clogged rain gutters; remove stumps, logs or piles of wood from areas adjacent to buildings.

Sources: New York State Tree Pest Leaflet No. F-3, Carpenter Ants; Cornell Cooperative Extension Misc. http://ipmguidelines.org/Home/content/Book2/CH05/default.asp#_Toc235345837

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