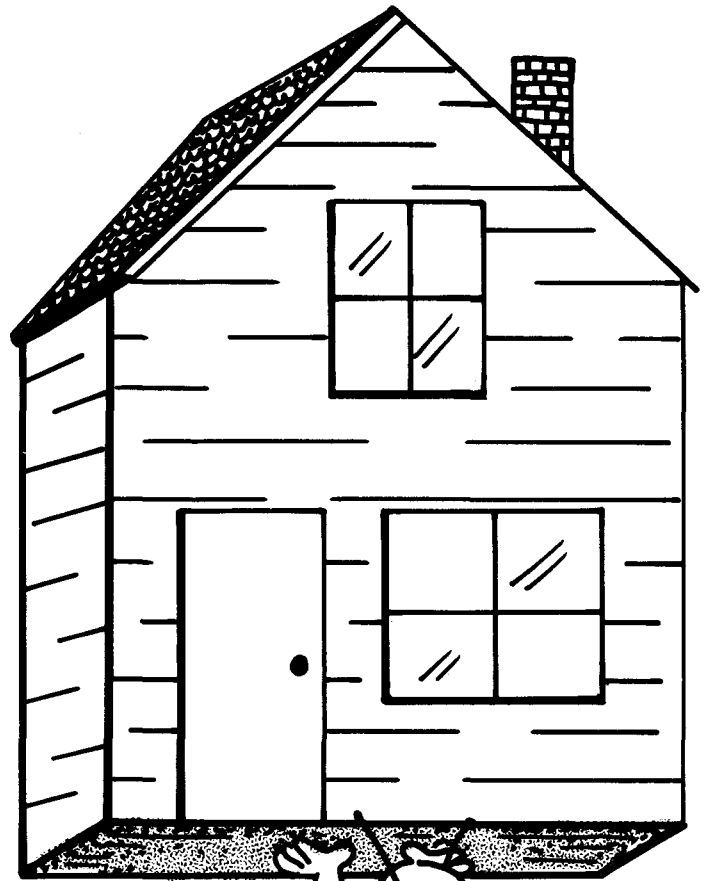


E-1003



ANT CONTROL IN THE HOME

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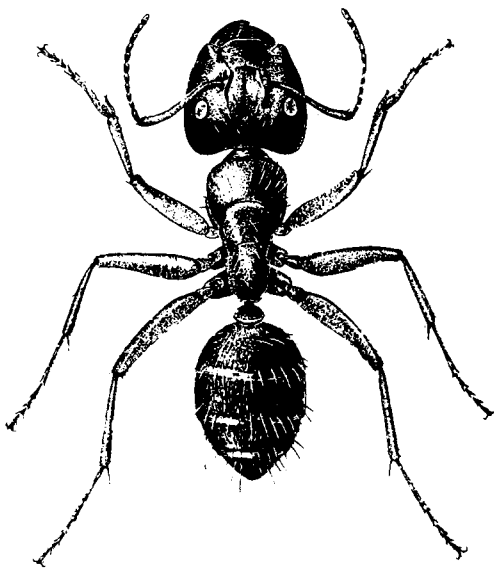
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ANTS are a common problem in homes. While ants can be found in household areas throughout the summer, they become more of a nuisance in the late summer and early fall. At this time the colonies are at maximum growth and winged reproductives are leaving the nest prior to mating and overwintering.

Identification

The size varies with species; individual ants can measure from 1/16 to 3/4 inch long. They have distinctly elbowed antennae and three conspicuous body regions; the head, thorax and abdomen or tail region (Figure 1). The latter is joined to the thorax by the abdominal pedicel, which gives the body a "thin waisted" appearance. Mature reproductives of many species contain two pairs of wings with the front wings always longer and wider than the hind wings.



Termites are sometimes confused with ants. However, there are distinct differences which are readily apparent. Termites differ from ants by having both pairs of wings equal in size. While ant bodies are constricted at the waist, termite bodies are not. The antennae of termites are straight and beadlike and do not resemble the elbowed antennae which are characteristic of ants.

Habits and Damage

Ants are social insects. They live in colonies or nests located in the soil near the foundation, in the garden or yard, under cement driveways or walkways, in crawl spaces and in structural walls and other protected areas of the home. Colonies consist of a reproductive female (queen) and several worker ants. The queen and workers overwinter in the nest and become ac-

tive in the spring. The colony continues to grow during the summer months and worker ants often become a nuisance in the home as they forage for food. Ants are less prevalent during years of drought; colonies flourish with adequate moisture and desirable temperatures.

The most common ant species found in homes include the following:

Thief Ants are extremely small (1/16 inch) yellowish-brown ants found around kitchen sinks, counters and cupboards. They are attracted to grease, oils, cheese, meats, etc. and do not feed on sweets.

Pharaoh Ants are found in walls, under foundations and floors, in ceilings and outside in gardens and along walks. They are light yellow to red and have a diverse food preference including sweets, grease, meats and seeds. They are 1/10 to 1/2 inch long.

Little Black Ants are small black ants approximately 1/10 inch long. They are found primarily outside in rotten wood or in the soil. Occasionally little black ants will enter homes in search of food but they prefer to feed upon plant secretions.

Field Ants are approximately 3/10 inch long and may be brown, black, red or have combinations of these colors. They infest fields, lawns, and gardens, and prefer sweet foods. They are often pests of recreational areas. When infestations are heavy, individuals may enter homes in search of food.

The **Large Yellow Ant** is a reddish-brown ant about 1/5 inch long frequently found in old logs,

Figure 1 .Typical ant found in households.

under stones and near the foundation of homes. They are also known as citronella ants because of the citronella-like odor which is given off when they are crushed. Swarms of reproductives often occur in basements in the fall, but this ant does not invade homes in search of food.

Cornfield Ants are important pests in homes in Northern states. They prefer to nest in rotting logs, tree stumps, under stones, and are common in lawns. They are often referred to as "picnic ants."

The most conspicuous ant species found in homes are **Carpenter Ants**. Workers are large and may vary in size from $\frac{1}{4}$ to $\frac{1}{2}$ inch long. Most carpenter ants are black but may have some brown coloration. This group of ants is especially important due to their excavating behavior in wood. Carpenter ants tunnel through wood and form nest galleries, similar to termites, and the galleries may be extensive if the colony is large. However, carpenter ant tunneling and nesting activity rarely impairs the structural integrity of buildings as is often the case with termites.

Nesting sites can be established in a number of different locations. For the most part, galleries are excavated in soft, moist or decaying wood. However, sound wood is infrequently infested. Colonies may be found in roofs, porch columns, windowsills, firewood, old trees and decaying stumps, wood foundations and walls and any other wood products which are in contact with relatively moist soil.

Unlike termites, carpenter ants do not feed on wood. Wood debris is continuously removed from the galleries and an infestation may be located by the piles of sawdust at

the base of the nest entrance. Tunneling and production of sawdust becomes more extensive as the colony becomes larger. As the worker ants forage for food, they will frequently enter homes, especially if the house is located near wooded areas. These ants will travel up to 300 feet from their nesting site while actively foraging.

Control Measures

When considering possible measures for control of ants in the home or yard, the location of the nest is of primary importance. Ants may be temporarily reduced in the home as they forage for food. However, the first step in permanent control is to determine the location of the nest and destroy the colony. The ability to identify the species of ant will help determine the nest site. If the ant colony is established within the structure, killing the exposed workers will do little toward eliminating the problem. A chemical barrier will provide temporary relief from ant invasions which originate from nests outside of the home but workers from the nest will eventually once again invade the building when chemical residues degrade and become ineffective.

In many instances, careful observation of the area from which the ants are foraging may help locate the colony. A small piece of bait (pie dough, honey, etc.) will sometimes attract the worker ants and help determine their foraging route. Once the route is determined, it can be treated (for temporary relief) or traced back to the colony and the nest site treated (for permanent control).

For species of ants which nest indoors (thief and pharaoh ants) workers should be traced back to their colony and the colony destroyed. Unfortunately, finding the nest is often very difficult due to the foraging characteristics of the ants and the actual location of the nest. Workers may not always be visible and the nest may be located several feet from the entrance. A concentrated insecticide treatment into all cracks and crevices for several feet on each side of the place where the ants are observed may be necessary. The window and door frames, baseboards, door moulding, and any cracks along the length of any wall where ants are seen should be treated with a residual insecticide. The disadvantage of this type of control is that usually only a small percentage of the total colony is controlled by crack and crevice sprays. Also, spraying can actually work against baits because the foraging ants can die before they make it back to the nest site with the poison bait.

Poison baits can be very useful in eliminating ants in the home. One advantage of baits is that the foraging workers often carry the poison back to the nest, which is often inaccessible to sprays, where it is fed to the rest of the colony members, resulting in a greater chance for eradication. Baits should be placed along ant trails and in areas where ants are frequently seen. Extreme caution should be observed to ensure that baits are kept out of the reach of children or pets.

To control ant species which nest outdoors, it is important to find the nest and treat the ants by applying generous amounts of insecticide directly to the nest. Dust and liquid formulations may be ef-

fective, but unless dusts are blown into the nest with considerable force, they may not be distributed throughout the colony. Wettable powders and liquids may provide improved control when they are diluted in several gallons of water and applied liberally over the nest and allowed to drain down into the colony. If nests are scattered over the lawn or throughout the garden, a broadcast spray may be necessary.

To prevent ants from entering the house, the foundation, steps, window wells, lower walls and other entry ways, which are being accessed by workers may be treated. The soil surface around the house should also be treated with a 2 to 3 foot barrier strip.

Because carpenter ants prefer moist wood, one of the best preventative measures to avoid problems is to keep potential nesting areas dry. Well constructed and ventilated homes usually have few problems with carpenter ants. Proper sanitation including the replacement of rotted, damaged structural wood in addition to the removal of dead trees and stumps and soil to wood contact on the premises is absolutely essential for eliminating infestations. Stacks of firewood, logs, and other potential nesting materials should be stored off the ground and away from buildings. All cracks in wood structures should be sealed with wood putty and painted where appropriate. It may be more advantageous to the homeowner to engage a professional pest controller

to control heavy ant infestations, especially where nests are hard to find. Several insecticides which are effective on ants should be applied

only by a certified applicator. In all cases, the restrictions and precautions on the product label should be strictly observed.

Insecticides Registered For Ant Control

Insecticide	Dosage	Remarks
carbaryl (Sevin) 4L	6 Tbsp/gal.	Apply directly to nest and areas where ants were seen. Apply in a 2 to 3 foot band around foundation. Water lightly after application of dusts and granules.
chlorpyrifos (Dursban) 1% dust	Follow label directions	Apply directly to nest and areas where ants are seen. Apply in a 2 to 3 foot band around foundation. Water lightly after application of dusts and granules.
chlorpyrifos (Dursban) 5.3% emulsifiable concentrate	4 Tbsp/gal.	Apply directly to nest and areas where ants are seen. Apply in a 2 to 3 foot band around foundation. Water lightly after application of dusts and granules.
chlorpyrifos (Dursban) 0.5% (aerosol and spray)	Follow label directions	Apply to infested areas including baseboards, cabinets, cracks in walls, etc.
diazinon 2% granule*	Follow label directions	Apply directly over nest and in 2 to 3 foot board around foundation.
diazinon 5% granule*	Follow label directions	Apply directly over nest and in 2 to 3 foot band around foundation.
malathion 50% emulsifiable concentrate*	8 Tbsp/gal.	Apply directly to nest and around foundation.
pyrethrin + pyrethroid (aerosol)	Follow label directions	Contact insects with spray. Apply to infested areas including baseboards, cabinets, cracks in walls, etc.
arsenic (Terro® bait)	Follow label directions	Place in areas where ants are frequently seen.
propoxur (several bait formulations)	Follow label directions	Place in areas where ants are frequently seen.

* Outdoor use only.