



Unfortunately Ants are Social Insects

Michelle Le Strange, Master Gardener Program

Ants are a nuisance in and around homes where they find food, water, and places to nest, but they are a serious problem when they contaminate food or damage structures and landscapes. Some ants sting, but most don't. Some ants protect aphids, whiteflies, and soft scales on plants by fighting off their natural enemies. They do this so that they can feed on a sugary liquid called honeydew that these plant pests produce.



Argentine Ant protecting a brown soft scale from predation. Scales excrete honeydew, a sugary substance that the ants like to eat.

An entomologist once exclaimed that California is one giant ant hill! He may be right. Ants are social insects that live in colonies. They locate food by random searching, and then carry it back to the nest, leaving a scent trail that other ants can follow back to the food source. Of the 200 kinds of ants in California, thank goodness only a few are pests.

Kinds of Ants:

- The most common house invading ants are the Argentine and the odorous house ant (smells like coconut when crushed). These brown ants form long trails from their nests to food sources such as

syrup, honey, fruits, and other sweets.

- Pharaoh ants prefer grease, meat, and fat, and some sweets. They are smaller and yellower than the Argentine or odorous house ants.
- The Southern fire ant and California harvester ant are mainly outdoor species, but both can sting.
- Finally there are several species of carpenter ants that invade houses and cause structural damage. Although they do not eat wood as termites do, they hollow it out to nest. These ants are large in size compared to other common species.



CA Harvester ant is a stinging red

Ant colonies divide the chores:

- Queens are larger than other ants; they lay eggs and help feed immature ants.
- Female workers are sterile; they gather food, build tunnels, and defend the colony; these workers make up the bulk of the colony.

- Males sole purpose is to mate with the queens. Few in number, males are fed and cared for by female workers (what a life!).

A new colony is started by a single newly mated queen. As numbers increase, new chambers and galleries are added to the nest. After a few years, the colony begins to produce winged male and female ants, which leave the nest to mate and form new colonies.

Indoor Treatments for Ant Emergencies: Ants enter buildings seeking food and water, warmth and shelter, or refuge from dry, hot weather or flooded conditions. They appear suddenly in buildings, if other food sources become unavailable or weather conditions change.

When ants invade your house, take these steps:

1. Sponge invaders with soapy water as soon as they enter.
2. Clean up food sources.
3. Plug up ant entryways with caulk or petroleum jelly.
4. Remove infested potted plants.
5. Rely on baits to control the ant colony.
6. Resist using indoor chemical sprays.

Management: Ant control should rely on nonchemical prevention and baiting. In the kitchen dabbing a trail of ants with a soapy (dish detergent) sponge stops them dead in their tracts. Baiting targets the entire colony. Successful baiting must consider what ants like to eat and where they prefer to nest.



Carpenter ant on a stem.

Examples of effective toxicants used in baits are boric acid, fipronil, and hydramethylnon. Hydramethylnon breaks down in sunlight, so it should be applied in the evening. Boric acid is most effective at 1% concentrations or lower. Fipronil is a class of toxicant that is effective against ants at ultra-low doses. Also available are arsenic trioxide and sulfuramid, which are added to sweet or oily products that make them attractive to the ants.

Avoid products packaged as granules that contain the active ingredients of synthetic pyrethroids like bifenthrin and cypermethrin for ant control. Although effective against many insects, these are fast acting contact insecticides that rapidly kill ant foragers, but do not control the colony. They also pollute waterways when washed down the drain.

Use baits outdoors, you don't want to attract ants into the house. The goal is to find bait that the ants will collect and feed on, and ultimately take back to the colony. Baits are slow acting and take 5-10 days to be distributed within the colony, so be patient. New baits are continually being improved, so keep trying. Tanglefoot or Stickem applied as a barrier around trees or shrubs will cut off the ants from the honeydew and encourage their consumption of the bait. When properly used, baits are more effective and safer than sprays.

August 7, 2012

