

Hotline Question: Ants

How can I keep ants out of my kitchen? I saw some on the counter last week. I got rid of them but now they're back.



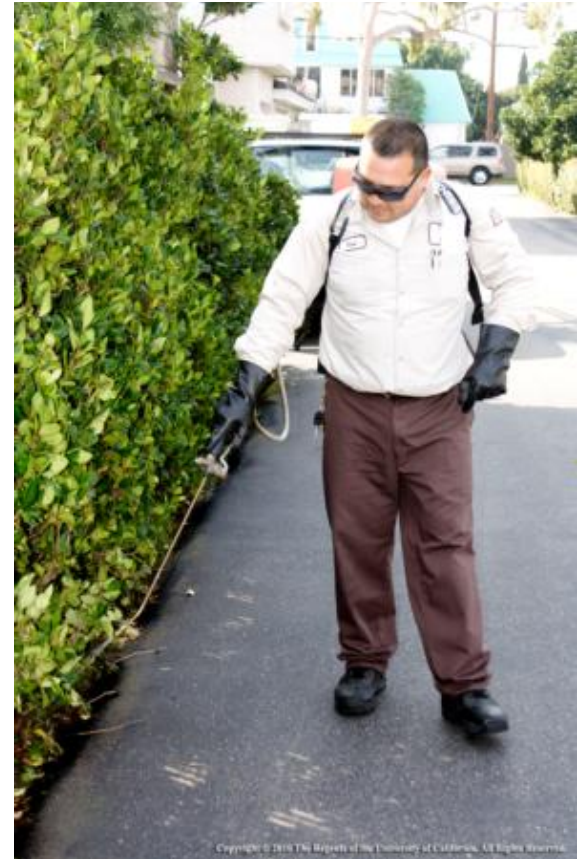
Ask if the person knows where the ants are coming from (outdoors or inside). Suggest trying to follow the ant trail back to their nest.



Exclude ants where possible by sealing cracks and other openings in walls. Also remove boards, rocks, and other material that ants may nest under if they are near the building.



Ask what the person did to get rid of the ants the last time. Did they use an insecticide? Most products cannot be applied where food is prepared or stored. If insecticide is used it's best to apply a spot treatment outdoors where ants are entering the building. Spraying around the entire house is not recommended since water can carry the insecticide into storm drains



Ants inside a home can be wiped up with a wet soapy sponge or cloth. This also removes the scent trail the ants follow.



Refer person to UC Pest Notes on ants

Ants

Although ants are annoying when they come indoors, they can be beneficial by feeding on fleas, termites, and other pests in the garden. While spraying chemicals inside the house might seem effective, doing so won't prevent more ants from entering your home. Because most ants live outdoors, focus efforts on keeping ants from entering buildings. Combine several methods such as caulking entryways, cleaning up food sources, and baiting when necessary. Avoid using pyrethroids (e.g., bifenthrin and cypermethrin), especially on hard surfaces such as driveways or sidewalks or around the foundation of buildings. These products pollute waterways.

Make your house less attractive to ants.

- Caulk cracks and crevices that provide entry into the house.
- Store food attractive to ants in closed containers.
- Clean up grease and spills.
- Ant-proof kitchen garbage pails with sticky barriers such as petroleum jelly under the lip and place pet dishes in a moat of water.
- Remove or manage sweet food sources next to your house such as aphid-infested bushes and ripened fruit on trees.
- Keep plants, grass, and organic mulch at least a foot away from the foundation of buildings to reduce ant foraging and nesting.

When ants invade your house:

- Sponge up invading ants with soapy water as soon as they enter.
- Plug up ant entryways with caulk.
- Take infested potted plants outdoors and submerge pots in a solution of insecticidal soap and water.
- Clean up food sources by wiping up spills or placing food in tight-fitting containers.
- Rely on outdoor baits to control the ant colony.
- Insecticide sprays shouldn't be necessary.
- If you hire a pest control company, ask them to use baits and spot treatments rather than perimeter treatments or monthly sprays.



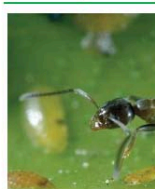
How baits work.

Pesticide baits work by attracting worker ants who then take the product back to the nest. Including queens, can be killing so workers won't be able to take it to the nest.

How to use baits:

Place baits near ant trails. Prepackaged or refillable baits are the safest and easiest to use. Baits may include boric acid or hydramethylnon. Liquid sugar water solution baits are best for severe Argentine ant or hydramethylnon. Liquid sugar water solution baits are best for severe Argentine ant when empty and repositing bait product if ants don't take 5 to 10 days to see fe

See www.ipm.ucanr.edu



Argentine ant, actual size

Minimize the use of pest waterways. Use non-toxic pesticide products product labels carefully on proper use, store

For more information about ants, contact your University of California Cooperative Extension office listed under the cooperative pages of your yearbook, visit the UC IPM Web site www.ipm.ucanr.edu, or scan the QR code with a smartphone.

What you use in your garden affects our lives

University of California Agriculture and Natural Resources Statewide IPM Program

Ants are among the most prevalent pests in households. Ants also invade restaurants, hospitals, offices, warehouses, and other buildings where they can find food and water. On outdoor and sometimes indoor plants, ants protect and care for honeydew-producing insects such as aphids, soft scales, whiteflies, and mealybugs, increasing damage from these pests. Ants also perform many useful functions in the environment, such as feeding on other pests (e.g., fleas, caterpillars, and termites), dead insects, and decomposing tissue from dead animals.

There are more than 12,400 species of ants throughout the world. In California, there are about 270 species, but fewer than a dozen are important pests (Table 1). The most common ant in and around the house and garden in California is the Argentine ant, *Linepithema humile* (formerly *Iridomyrmex humilis*). Other common ant pests include the Pharaoh ant (*Monomorium pharaonis*), odorous house ant (*Irgomyrma scabula*), thief ant (*Solenopsis molesta*), southern fire ant (*S. taylori*), and pavement ant (*Tetramorium caespitum*). The velvety tree ant (*Lasius niger*) and *L. lucorum* nest in trees and are common outdoor species in landscapes.

Less common, but of great importance, is the red imported fire ant, *S. invicta*, which gained a foothold in Southern California in 1998. In some areas, competition from the Argentine ant has slowed the spread of the fire ant. Carpenter ants, *Camponotus* species, and velvety tree ants also invade buildings in California. Although they don't eat wood as termites do, they hollow it out to nest and may cause considerable damage. For more information about red imported fire ants or carpenter ants, see *Pest Notes: Carpenter Ants and Pest Notes: Red Imported Fire Ant* listed in References.

ANTS

Integrated Pest Management in and around the Home

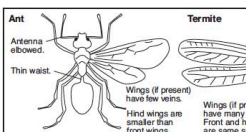


Figure 1. Distinguishing features of ants and termites.

IDENTIFICATION

Ants belong to the insect order Hymenoptera and are close relatives of bees and wasps. Ants are familiar insects that are easily recognized, especially in their common wingless adult forms, known as workers. However, winged forms of ants, which leave the nest in large numbers in warm weather to mate and establish new colonies, are often mistaken for winged termites, which also leave their nests to mate. Ants and termites can be distinguished from one another by three main characteristics (Figure 1):

- The ant's body is constricted, giving it the appearance of having a thin waist, while the termite has a broad waist.
- The ant's hind wings are smaller than its front wings, while the termite's front and hind wings are about the same size. However, shortly after their flights, both ants and termites lose their wings, so wings usually aren't present.
- Winged female and worker ants have elbowed antennae, while the termite's antennae aren't elbowed.

Ants undergo complete metamorphosis, passing through egg, larval, pupal, and adult stages (Figure 2). Larvae

are immobile resemble adult hymenoptera are social insects among different adults. Queen function: than other ant species participating in egg laying. They gather food, if build tunnels for their worker colony. Males activities: the with the queen for males, who

For additional to identify di the *Key to Identifying Common Household Ants* at <http://www.ipm.ucanr.edu/TOOLS/ANT>

LIFE CYCLE

Ants usually vary with species nest to build in close proximity such as trees honeydew-producing insects tree stumps,

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Ants

Table 1. Identifying Features of Common Household Ants¹

	One-node ant	Two-node ant
Argentine ant (<i>Linepithema humile</i>)	J. K. Clark	J. K. Clark
Pavement ant (<i>Tetramorium caespitum</i>)		J. K. Clark
Food: sweets, sometimes proteins		Food: sweets, proteins, grease
Nest: outdoors in shallow mounds		Nest: in lawns or under stones or boards, builds mounds along sidewalks and foundations or near water
Physical description: 1/8 inch, dull brown		Physical description: 3/16 inch, dark brown to black
Carpenter ant (<i>Camponotus</i> species)	J. K. Clark	Pharaoh ant (<i>Monomorium pharaonis</i>)
Food: sweets		Food: fats, proteins, sweets
Nest: in tree stumps, firewood, fence posts, hollow doors or window frames, deposits sawdustlike frass outside nests		Nest: in wall or cabinet voids, behind baseboards or insulation, or outdoors in debris
Physical description: large, workers vary from 1/4 to 1/2 inch, black or bicolored red and black		Physical description: 1/16 inch, yellow or honey-colored to orange
Odorous house ant (<i>Irgomyrma scabula</i>)	D.-H. Choe	Red imported fire ant (<i>Solenopsis invicta</i>)
Food: sweets, sometimes proteins		Food: sweets, proteins
Nest: in shallow mounds in soil or debris or indoors in wall voids or around water pipes or heaters		Nest: in mounds with multiple openings in soil or lawns and sometimes in buildings behind wall voids
Physical description: 1/8 inch, dark brown to shiny black, very strong odor when crushed		Physical description: workers vary from 1/16 to 1/8 inch, reddish with dark brown abdomen
Velvety tree ant (<i>Lasius niger</i>)	D. Rosen	Southern fire ant (<i>Solenopsis geminata</i>)
Food: sweets and insects		Food: proteins and sweets
Nest: in dead wood such as old tree limbs, stumps, and logs		Nest: in small mounds with flattened, irregular craters in wood or under rocks
Physical description: workers vary from 1/8 to 1/4 inch, brownish-black head, red thorax, velvety black abdomen, very distinct odor when crushed		Physical description: workers vary from 1/8 to 1/4 inch, amber head and thorax, black abdomen, golden hairs cover body
		Thief ant (<i>Solenopsis molesta</i>)
		Food: greasy and fatty, sometimes sweets. Steals food and ant larvae from other ant nests.
		Nest: outdoors in soil or under rocks or decaying wood, indoors behind wallboards or baseboards
		Physical description: 1/12 inch, yellow to light brown

¹ See the *Key to Identifying Common Household Ants* at <http://www.ipm.ucanr.edu/TOOLS/ANT/KEY/> for more information and line drawings on identifying species.



Red imported fire ants have been found in SD County. They sting and bite in large numbers when their nest is disturbed. They may be confused with the southern fire ant or harvester ants. Samples of ants can be submitted to the county ag department for identification (use Q-tips and a plastic bag to collect ants).



References

- UC IPM

<http://www.ipm.ucdavis.edu/PMG/invertebrates/links.ants.html>

- UC IPM Pest Notes

<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7411.html>

- UC IPM Quick Tips

<http://www.ipm.ucdavis.edu/QT/antscard.html>