

CONTROLLING ANTS IN YOUR HOME

CONTROL ANTS IN YOUR HOME WITH THESE ECO-FRIENDLY PRODUCTS

Baits containing borates	Amdro Kills Ants Ant Killer (liquid ant bait), KM Ant Pro ant bait delivery system, Maggie's Farm Simply Effective No Spill Ant Kill, Terro Ant Killer II Liquid Ant Bait Station (pre-filled bait stations)
Containerized baits containing hydramethylnon	Amdro Kills Ants Ant Killing Bait (bait stations), Combat Source Kill 4 Ant Bait Stations (use only in enclosed bait stations)
Desiccating dust containing diatomaceous earth (DE)	Concern Diatomaceous Earth Crawling Insect Killer, Safer Brand Ant and Crawling Insect Killer—Diatomaceous Earth, St. Gabriel Organics Diatomaceous Earth Insect Dust
Applicator for diatomaceous earth (DE)	Pest Pistol
Plant-based insecticides	EcoLogic Ant and Roach Killer, Ecosmart Ant and Roach Killer, Orange Guard
Hose attachment	Bug Blaster
Sticky barrier	Stikem Special pest glue, Tree Tanglefoot Insect Barrier

Argentine ants are frequent invaders in California homes. They are tiny (1/8 inch). They come inside a few at a time at first (the scouts), and then in long lines, following scent trails to a food source.

A QUICK FIX FOR AN ANT EMERGENCY

If you deal with ants when they first come inside, a few simple steps can take care of the problem.

- Find what ants are after (usually leftover food) and where they are entering the room (usually through a crack in the wall). Mark the spot so you can find it again. If you can't find an entry point, see Step 4.
- Spray lines of ants with soapy water and wipe up with a sponge, and clean up any food or spills.
- Next, block entry points temporarily with a smear of petroleum jelly or a piece of tape.
- If you can't find an entry point, clean up the ants (Step 2). Place a bait station in an out-of-the-way spot on the line the ants have been following. Remember to remove the bait station when the line of ants has disappeared so you don't attract more ants into the house. (See *Tips for Using Ant Baits*.)

While they can be pests, ants are helpful creatures, especially outside. Ants kill and eat many pest insects, help to aerate soil, and recycle animal and vegetable material. This is good news, because it's probably not possible to eliminate ants from their outdoor habitat. The best way to manage an ant invasion is to keep them outside.

KEEP ANTS AWAY

- Store food in the refrigerator, or in containers that seal tightly.
- Keep things clean and dry, and fix leaking faucets and pipes (ants come in to find water as well as food).



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- Weather-strip doors and windows.
- Put pet dishes in a soapy moat—partially fill a wide, shallow container with soapy water and place pet bowls in the water.
- Use silicone caulk to permanently close holes in walls, cracks along moldings and baseboards, and gaps around pipes and ducts to keep ants outside.
- Use a hand duster, such as Pest Pistol, to apply desiccating dust such as diatomaceous earth (DE) in wall openings and cracks before sealing. DE kills insects by absorbing their outer waxy coating, causing dehydration and death. It has little toxicity to humans or pets but inhaling it can cause respiratory problems, so wear a dust mask and goggles when applying. Be sure to buy food-grade DE, not DE for pool filters.



OUTDOORS

- Follow indoor ant trails back to the spot where ants come in from outside, and place enclosed bait stations there.
- Caulk cracks where ants are entering the house.
- Ants are attracted to the sweet, sticky honeydew made by aphids, whiteflies, and scale insects. Use sticky barriers around the trunk of a tree or bush to keep ants away while you deal with the source of the honeydew. Prune any branches that touch walls, fences, or the ground so ants cannot get around the barrier.



ANTS IN YOUR PLANTS?

If ants are nesting in a potted houseplant, move it outdoors. Water it thoroughly and place the pot in a bucket filled with water that comes an inch below the rim of the pot. Use a stick to make a bridge for ants to get out of the pot and the bucket without getting in the water. The ants will soon begin carrying their white-colored young to safety. When no more ants emerge, drain the pot and return it to the house.

TIPS FOR USING ANT BAITS

Baits use a minimum of insecticide and confine it to a very small area. Ants carry small quantities of bait back to the nest to share, which can reduce the local ant population.

- Use baits with active ingredients borate or hydramethylnon. Bait stations with hydramethylnon should be enclosed.
- Argentine ants change their food preferences frequently. If one bait is not working, try another type. Wait at least a day to see if ants take the bait.
- Do not spray insecticide around the bait; it will repel the ants.
- Baits may take several weeks to kill the ants. At first you may see more ants coming to the bait, but after a few days to a week you should see many fewer ants.
- When ants are gone, remove the bait so you don't attract more ants. Return enclosed bait stations to the original box to save and use again. Put the box inside a plastic bag, seal it with a twist-tie, and store away from children and pets.



WWW.OURWATEROURWORLD.ORG

Common home and garden pesticides are found in stormwater runoff, treated wastewater, and in local waterways, sometimes at levels that can harm sensitive aquatic life. **Our Water Our World** is a joint effort by water pollution prevention agencies, participating retail stores, and pesticide distributors and manufacturers—working together to reduce the risks associated with pesticide use.

Our Water Our World fact sheets and store displays educate residents about less-toxic pest management. For the rest of the series of fact sheets, visit www.OurWaterOurWorld.org. Look for the *Eco-friendly* tag next to less-toxic products in participating stores and nurseries. See the *Pesticides and Water Quality* fact sheet for information on active ingredients in common pesticides that may cause water quality problems.

Pest control strategies and methods described in this publication are consistent with integrated pest management (IPM) concepts, and are based on scientific studies and tests in actual home and garden settings. Use suggested products according to label directions and dispose of unwanted or leftover pesticides at a household hazardous waste collection facility or event. For more information on pesticide disposal, visit www.earth911.com. No endorsement of specific brand name products is intended, nor is criticism implied of similar products that are not mentioned.

For more information, contact:

Bio-Integral Resource Center (BIRC), 510.524.2567, www.birc.org

University of California Cooperative Extension Master Gardeners in your area

University of California IPM website, www.ipm.ucanr.edu

PLANTING A



HEALTHY GARDEN

Planting a variety of flowering plants that bloom throughout the spring and summer gives you a beautiful garden, and can also reduce the number of garden pests. Many commonly available plants—including drought tolerant plants—attract beneficial insects that feed on pests you don't want around!

ATTRACT BENEFICIAL INSECTS, AND KEEP THEM AROUND

Beneficial insects are the ultimate non-toxic pest control. And they do all of the work for you! Soldier beetles, syrphid flies, and ladybugs and their larvae attack aphids. Lacewings will go after just about any insect pest.



Lady beetle (ladybug)



Syrphid fly



Green lacewing



Soldier beetle

Use pesticides only as a last resort. If you must use a pesticide, choose the least toxic product designed to kill the specific target pest. Bees and other beneficial insects are often more sensitive to pesticides than the pests you want to kill. What's worse, after pesticide use has eliminated the beneficial insects, the pests are free to multiply... and you'll need to spray again.

GOOD GARDEN CHOICES

These plants are rich in pollen and nectar, and will attract beneficial insects and pollinators—like bees and butterflies.



Baby blue eyes



Ceanothus



Monkey flower



Rudbeckia



Tidy-tips

Aster species

Baby blue eyes (*Nemophila menziesii*) **N**

Calendula species

Ceanothus species **N, D**Calif. poppy (*Eschscholzia californica*) **N, D**Chervil (*Anthriscus cerefolium*)

Chrysanthemum species

Cosmos species

Coyote brush (*Baccharis pilularis*) **N, D**Dill (*Anethum graveolens*)Elderberry (*Sambucus mexicana*, also known as *Sambucus nigra*) **N, D**Fleabane (*Erigeron*)Lavender (*Lavandula* species) **D**Manzanita (*Arctostaphylos* species) **N, D**Marguerite daisies (*Argyranthemum* species)Monkey flower (*Mimulus aurantiacus* and *cardinalis*) **N**Native buckwheat (*Eriogonum* species) **N**Pincushion flower (*Scabiosa* species)Rosemary (*Rosmarinus officinalis*) **D**Rudbeckia species **D**Sunflower (*Helianthus* species)Tidy-tips (*Layia platyglossa*) **N**Toyon (*Heteromeles arbutifolia*) **N, D**Yarrow (*Achillea millefolium*) **N****N=Native D=Drought-tolerant**

Choose eco-friendly products for your home and garden. Look for this symbol before you buy.

Learn what beneficial insects look like in their various stages of development. People often kill juvenile ladybugs and other good bugs by mistake.

Go to www.ipm.ucdavis.edu/PMG/NE/index.html to see what beneficial insects look like as "babies" and adults.



Adult ladybug



Juvenile ladybug (larva)

CHOOSING THE RIGHT PLANT

Plant for success! Many of the plants that attract beneficial insects are California natives that should do well here. It's important to learn about your garden—what type of soil you have and how much sunlight you get throughout the day and during different seasons—and choose plants that fit in.

- Read the label! Most nurseries provide detailed information about plants' blooming habits and water and sunlight requirements. For plants that are pest-prone, such as hollyhocks and fuchsias, look for varieties described as pest- and disease-resistant.
- Before you buy a plant, check the roots. Gently pull or knock the plant out of its pot to make sure it's not root-bound. Don't buy a plant with roots that are kinked, growing out of the bottom of the container, or surrounding the root ball. Also, don't buy a plant if its root crown (the area where the roots meet the stem or trunk) is soft or rotten.

Talk to your local garden club, and check out these resources to help you choose the right plants:

- University of California Cooperative Extension Master Gardeners mg.ucanr.edu/Become_a_Master_Gardener/Counties
- California Native Plant Society www.cnps.org
- Search the web for *waterwise plants* to find a list for your area.

CARING FOR YOUR PLANTS

Knowing your plant's needs for water, pruning, and fertilizer will help you keep your garden healthy.

Even drought-tolerant plants need regular water to become established. During their first two growing seasons, water new plants deeply twice a week so that their roots will grow down into the soil. You may have to water young plants more often during hot weather.

- Don't pile soil around the plant any higher than the root crown. Don't plant in a depression that will allow water to wash soil down around the stem or trunk and cover the root crown. A continually moist root crown can cause rot.
- Cover bare soil with mulch. Mulch conserves soil moisture so plants don't dry out as quickly. A four-inch layer of mulch will prevent most annual weeds from growing, and any weeds that do sprout can be pulled out more easily.
- Use a mulch of leaves, bark, or composted manure and/or garden waste to provide organic matter to the soil and a slow, steady flow of nutrients to plants. Make sure not to cover the crown of the plant.
- If you need to fertilize, use organic, slow-release fertilizers.
- Learn how and when to prune your plants, and don't prune more than recommended. Severe pruning can damage the plant and encourage pests and diseases.

AVOID INVASIVES!

Beware of invasive species like these:



Sour grass
Oxalis pes-caprae



Periwinkle
Vinca major



Pampas grass
Cortaderia selloana

For a list of more plants to avoid, go to the California Invasive Plant Council Website: www.cal-ipc.org/paf/



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KEEP RATS AND MICE OUT OF YOUR HOME

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Snap traps	Tom Cat Rat Traps, Tom Cat Mouse Traps, Victor Rat Traps, Victor Mouse Traps
Electrocution traps	Rat Zapper, Raticator Plus Rodent Trap, Victor Electronic Mouse Trap, Victor Electronic Rat Trap

How do you know whether you have a rodent problem? You may see a mouse or rat, smell them, or hear them chewing and scampering at night in walls and ceilings. Look for droppings, signs of gnawing, and the nests rats and mice make from shredded paper, cloth, or insulation. You may find rat burrows in the ground outside.

GET RID OF RODENTS

- Set traps. Use snap traps or battery-operated electrocution traps instead of glue boards. Glue-trapped animals don't die immediately; the glue boards may catch other animals (such as cats) that try to eat the trapped rodents. (See *Tips for Using Traps*.)
- Remove or clean up food that attracted the rodents. Remove clutter.
- Don't leave dirty dishes in the sink—either wash or keep them in the dishwasher with the door closed.
- Keep food (for people and pets) in the refrigerator or in containers made of glass, metal, or heavy plastic with tight-fitting lids. Store birdseed, and grass seed in pest-proof containers.
- Remove and clean pet dishes after pets have eaten. Do not leave pet food out over night, especially outside.
- Empty garbage often. Outside, keep trash and recycling in rodent-proof cans with closed, tight-fitting lids.
- Fix leaking faucets and pipes—rats and mice get thirsty too.

There are plenty of reasons why it's important to keep rodents out of and away from your home. Rats and mice can bring fleas, ticks, and germs that carry diseases. Rodents and their droppings can make allergies and asthma worse. Rats and mice will eat and contaminate your food, damage property, and can even cause fires by chewing on electrical wires in your walls or attic.

KEEP THEM AWAY!

Trapping alone will not solve your rat or mouse problem long-term. You must also take steps to keep other rats or mice from getting into your home.

Seal holes and cracks

Since a mouse can squeeze through a hole as thin as a pencil, and both rats and mice can chew a small hole into a larger one, be sure to seal or close off all cracks and crevices.

- Close off large holes with sheet metal flashing, 1/4" hardware cloth, plaster, or mortar. Stuff scouring pads or knitted copper mesh into large gaps. Don't use steel wool for this—it will rust and eventually allow the rodents to get back in.
- Seal smaller holes with caulk, spackle, or cement.
- Make sure there are no gaps around windows and doors. Use weather stripping and door sweeps if needed, and repair thresholds and windowsills. Keep outside doors and screen doors closed, especially at night.

DON'T GIVE RODENTS A PLACE TO HIDE

- Throw away materials that rodents could use to make nests, like shredded paper, cotton or polyester batting, foam rubber, insulation, rags, and string—or keep in pest-proof containers.



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Outside

- Remove woodpiles, rock piles, and other debris piles. Store firewood and lumber at least 18" above the ground and 18" away from all structures.
- Thin dense bushes and shrubs and remove heavy vine growth. Make sure tree and shrub branches are at least three feet away from buildings.
- Get rid of ivy. Ivy provides shelter and food for rats. If you can't remove it, cut it close to the ground.
- Use rodent-proof compost bins and never put meat in the compost.
- Standing water attracts thirsty rodents (and breeds mosquitoes). Turn over empty flower pots, and remove tires stored outdoors or drill holes in them so water can drain.

CLEANING UP ONCE THEY'RE GONE

- If you find a nest, put on rubber gloves and place the nest and droppings in a plastic bag, along with any material the rodents may have touched. Seal the bag and put it in the trash.
- Wash any surface where rodents have been with soapy water to get rid of food residue, pest saliva, droppings, and urine, and then wipe the surface with a disinfectant containing hydrogen peroxide. If you have asthma, you should wear a dust mask.

IF YOU CALL A PROFESSIONAL

Call a pest management professional (PMP) that offers less-toxic solutions to all pest problems (integrated pest management, or IPM).

- Ask for a thorough inspection to find out where rodents are getting in and what they are eating.
- Ask the PMP to try trapping rodents before using poisons that are bad for people, pets, and the environment.
- Whatever method they use, make sure the company will return to remove dead rodents.
- Insist on pest-proofing services, such as blocking rodent entry points.

For a listing of pest control companies providing IPM services, go to www.ecowisecertified.org or www.greenshieldcertified.org.

TIPS FOR USING TRAPS

Electrocution traps are effective—and more humane than snap traps. These battery-operated traps (not to be confused with ultrasonic devices) ensure that rodents die quickly and also make getting rid of dead animals easier.

Snap traps come in different sizes for rats and mice. Use a trap rated for rats for roof rats (which sometimes are mistaken for mice, as they are grey and "cuter" than Norway rats). A too-small trap may only wound the animal. **Always keep snap traps out of the reach of children and pets.**

Mice are easy to trap using peanut butter as bait. Trapping rats takes more patience.

- Get rats used to eating from the trap for a few nights by placing the bait on the trigger without setting the spring.
- Set the spring only after you are sure the rats are taking the bait.
- Check traps daily and put dead rodents and snap traps in plastic bags, seal them, and throw them in the outside trash. Protect yourself by wearing rubber gloves, and try not to touch the animal. If you have asthma, you may want to wear a dust mask.

If you don't succeed, you may need to hire a pest management professional.

About poison baits

- Poison baits should be used only by a PMP and only as a last resort or in an emergency. Not only is there a danger of directly poisoning people or pets, but animals (such as outdoor cats) that eat poisoned mice or rats can also be killed. With very bad rodent problems, poisoned animals may die behind walls, causing odors and breeding flies.
- Make sure your PMP uses only locking, tamper-resistant bait stations.
- Ask the PMP not to use rodent baits that are no longer allowed for use by consumers, containing bromadiolone, brodifacoum, difenacoum, or difethialone. These chemicals kill pets, birds, and wildlife.



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