

Roaches - Typical First Strikes by Housekeeping & Maintenance (Think like a cockroach!)

1. Practice proper sanitation. The key to long-term roach control is to eliminate the food, water and shelter/ harborage they need to survive. Change the conditions conducive to infestation. Be sure all visible cracks and crevices are caulked and fans are left on 24 hours a day in all active areas. Repair all leaks and keep things dry. Install and properly maintain fans or air conditioners and/or dehumidifier(s). Lower the humidity to 50% or less and you will severely reduce the hatching of cockroach eggs. Properly store food and garbage. **Fans, e.g., carpet drying fans, must be left on continuously 24 hours a day for several weeks to control cockroach infestations. Use a blast of pressurized air to flush them out of hiding.**
2. Routinely clean or spray with Safe Solutions Enzyme Cleaners (1 oz. per gal. water), all garbage cans (inside and outside) and flood all garbage disposals, grease pits and all drains with enzymes (2 oz. per qt. water) daily. Daily drain all sinks and remove any food debris. Thoroughly clean all items you plan on recycling. Maintain routine and thorough sanitation and proper food and garbage storage. Spray, clean and completely drain all steamers or steam tables. **Do not leave garbage or any food out at night! Eliminate plumbing leaks and condensation problems and put screens or stoppers (or tennis balls) in all drains.**
3. Lightly dust ("If you see white, it ain't right.") with baking powder, talcum powder or medicated powder or Comet® or food-grade DE along the edges of the room and in any remaining cracks and crevices - or spray them with Not Nice to Bugs® or diluted enzyme cleaner (1 oz. per qt. water) or blow hot air from a hair dryer or heat gun into the cracks.
4. Mix baking soda (or food-grade DE) and powdered sugar and place as a bait mix. Make some 10% sucrose (or use fermenting molasses) and aspartame or 4% orax or boric acid liquid baits and place them out of reach of children and pets. Place pheromone traps wherever you see roaches. **Date the traps and place them in corners and against edges. Even an inch away can reduce effectiveness. Remove all paper bags, cardboard and fiberglass insulation!**
5. Spray or mist roaches with diluted Safe Solutions Enzyme Cleaner with Peppermint (1 oz. per qt. water). Give a sprayer filled with 1 oz. per qt. water of Safe Solutions, Inc. Enzyme Cleaner with Peppermint to each teacher or member of your staff so that they can quickly and safely control all visible pest problems they encounter. Try spraying diluted Safe Solutions, Inc. enzyme cleaner in a power washer or steam clean. **If you control the harborage you control the roaches, so dust and then caulk and seal!**
6. Mop the floors and clean garbage containers inside and outside with 1-1½ cups of borax, or Mop up® per the label per gallon of hot water. **Keep crawling children off the floor!**
7. One hour after dark, enter the room/home/building with a red/yellow light (A piece of Roscolux #10: Medium Yellow theatrical lighting gel, <http://www.rosco.com/us/filters/roscolux.asp>, can be used to cover a good flashlight and give you a yellow light "they" can not see.) and a vacuum. Vacuum up all visible roaches before turning on the regular lights. If you are using a dry vac, add 1 teaspoon of corn starch or talcum powder to the bag to kill the roaches. If you are using a rinse-and-vac, have some soapy or diluted Safe Solutions, Inc. enzyme water in the container to kill the roaches. Repeat once a week for several weeks or until all activity ceases. **Peak roach activity occurs 2 hours before and 2 hours after midnight. Remove (or seal in plastic) all recycling materials daily. This technique not only removes the roaches, it also prevents them from decomposing into the ambient air. Caulk all cracks, especially where you saw activity!**
8. Make some roach traps out of carpet or duct tape (sticky-side up) or by using a mason jar or by cutting the top off of a 2-liter soda pop bottle, cut in a straight line where the bottle begins to curve, cover the exterior with a sock or nylon, put a little Vaseline® (or a mix of 3 parts petroleum jelly and 1 part mineral oil) around the inside edge of the bottle and invert the top and put it back inside the bottle (like a funnel), then duct tape the edges to keep the top from falling inside and the roaches from escaping. Put some masking tape on the outside from the bottom to the top, so the roaches can climb up and into your trap. Put 2" - 3" of beer or wine or a piece of white bread soaked in beer or a banana dipped in beer, some sweet cinnamon roll, bacon grease, bran, a small boiled potato or a commercial pheromone attractant (or some roach droppings) in the bottom and place under sinks, in corners, and wherever you see roaches. You can take some roach droppings and mix them in acetone and spray the mix into your traps and make several "paths" to the traps. (Be sure to wear the proper protection to protect you from the acetone.) You can use this trap to monitor or control. If you leave a small strip or one side open, you can visually inspect your roach trap. You can either freeze the contents or pour in diluted Safe Solutions, Inc. enzyme cleaners or hot soapy water. Empty out and reset, or throw away and make some more.

Spray the inside of a brown paper bag (or some plain paper or a piece of wood or cardboard) with 3M® Super 77 Spray Adhesive, <http://www.3MSuper77.com>, (add some roach droppings or pieces of sliced onion or potato or some dog kibble or a small piece of beer soaked bread and leave it on the floor, under the sink, behind the stove or refrigerator, etc. wherever you see roach activity. Replace as needed. **But, remember, the more you catch the more you attract.**

9. Create escape-proof barriers and/or traps with Tanglefoot®, <http://www.tanglefoot.com>, or double-sided (e.g., Mr. Sticky®, <http://www.mrsticky.com>) or, better yet, carpet sticky tape or Vaseline®. Even masking tape can be used to trap roaches, but it dries out quickly and the roaches escape, so use duct tape (sticky-side up). Draw a line of defense with Safe Solutions, Inc. Chalk De-Fence™.
10. **Note:** Quite often a health inspector will assume you have a serious roach infestation if they see one dead cockroach in a trap, so replace traps as needed with (empty) pheromone traps.
11. Dissolve the roach feces in methylene chloride; then mix the solution in water. The water will contain the roach pheromone attractant and the offensive color and odor will stay in the methylene chloride. Use the water to attract roaches to your traps and/or baits. You can make several lines like the sun's rays for them to follow to a large sticky mouse trap sprayed with the (pheromone) water or into some other trap, e.g., a 2-liter trap.
12. You can use biological controls, e.g., gecko lizards, hedgehogs and/or parasitoid or predatory wasps. Note: Ants and rats and mice will also eat roaches.
13. You can flame roaches with a propane torch **if you are extremely careful!** When you hit the cracks for the roaches, the roaches die instantly. This can be a viable alternative in areas where you can not vacuum, e.g., concrete cages. **115° F. heat will kill all stages of cockroaches in 30 minutes.**
14. Oriental or sewer roaches: Routinely add diluted Safe Solutions, Inc. enzyme cleaners to the drains. You can also add Drano® Dual Force Foamer, <http://www.drano.com/> or Liquid Plumber® Foaming Pipe Snake, <http://www.liquidplumr.com/products/index.html>, to the infested drains. Still have a problem or have some infested drains that you can not foam? Put a box of baking soda and a quart of apple cider vinegar down the sewer vents on the roof, or dust food-grade DE through the cleanouts with a powder duster.
15. Vacuums - A strong vacuum with a crevice attachment will pull roaches from their hiding places. Put a teaspoon of food-grade DE in the bag to suffocate them. Use a red light at night (1 hour after dark) to really find and then eliminate them. Keep the exhaust air away from the roaches you want to vacuum.



An ideal vacuum tool would be a handheld vac with a battery with the addition of a red light for night vacuuming. The one pictured at the left has a light bulb; just replace the normal clear bulb with a red bulb.

16. **If you are still seeing roaches, read the entire chapter - there are many other controls available. Remember: You must have variety in your control programs or you will run into control problems.**

Alternative Controls

1. Make a roach dough by combining ½ c. powdered sugar and ¼ c. shortening or bacon drippings. Add ½ c. onions, ½ c. flour and 8 oz. baking soda. (Don't forget to add some roach droppings.) Add enough water to make a dough-like consistency. Make balls of bait and put them wherever you see roaches.
2. Mix one clove garlic, one onion, one tablespoon of cayenne pepper and 1 quart water. Steep for one hour, strain, add a tablespoon of liquid soap and spray it around the house for ant and/or roach control.
3. Place bay leaves or talcum powder or baking soda around cracks in rooms or spray with diluted Safe Solutions, Inc. Enzyme Cleaners.
4. If you find a roach infestation in a computer, radio, t.v., etc., simply place the entire item/appliance in a sealed plastic bag for 1 month. The roaches will die from dehydration. Or simply put in a black bag in the sun on a 70° F. day for a few hours.
5. Mix 1 c. borax and ¼ c. black pepper and ¼ c. shredded bay leaves; sprinkle to repel roaches. **Keep this mix off all food and/or dishes.**

Roach Bait Comment: Virtually any roach bait will continue to secondarily kill cockroaches as they cannibalize those that have died, eating the poisoned baits. This chain can continue for some time, so one properly placed (boric acid) bait can kill several dozen roaches.



***Safe Solutions products may be purchased online at:**
<http://www.safesolutionsinc.com>