Got Roaches? Eliminate Roaches with IPM

Tips on how to eliminate cockroaches using Integrated Pest Management (IPM).

Photo credit: Matt Bertone

What Is IPM?
Integrated pest management (IPM) uses information about the pest in order to choose methods of control that are the safest and most effective. IPM methods include pest prevention, exclusion, and nonchemical tools first. If chemical pesticides are needed, products are chosen that pose the least risk to human health. With IPM, you start by asking, "Why is this pest here?" and try to remove the conditions allowing the pest to enter and live. This approach solves pest problems rather than just treating the symptoms. It also reduces the need to use pesticides repeatedly.

Why Use IPM for Roaches?
- More likely to give long-term control
- Less hazardous to human health
- Less toxic to non-target organisms
- More cost effective
- More site specific

Steps to Managing Roaches

Step 1: Pest Identification

Three kinds of roaches are commonly found in homes (red bar indicates actual size):

- **American** roaches often come up floor drains and sewer pipes. They are found in hot, damp areas of the home.
- **Oriental** roaches like cool, damp conditions and inhabit wet basements.
- **German** roaches may come into homes in cardboard boxes or from adjacent units. They like dry conditions and are most commonly found in kitchens.

Step 2: Prevention

The next step in preventing problems with roaches is eliminating what they need to survive: food, water, and shelter. By eliminating these necessities you can get long-term control and avoid the need to repeatedly apply pesticides, which generally provide only short-term results. Here are some suggestions:

- Eliminate sources of food. Clean up all spills and crumbs, and don’t leave snacks or pet food out. Wash dishes promptly and remove garbage. Eliminate grease residues on range hoods, under the stove top, and on the sides of stoves and refrigerators.
- Eliminate sources of water. Pick up pets’ water at night and repair water leaks. Don’t leave dishes in the sink overnight.
- Clean up potential hiding space such as stacks of old newspapers or magazines, bags, boxes, and piles of...
clothing.

- Prevent roaches from reentering your home by sealing off all cracks and crevices around cabinets, backsplashes, windows, doors, crawl spaces, pipes, wires, and cables with silicone caulking, screening, and/or copper mesh.

## Step 3: Controlling Roaches Safely

Try a combination of nonchemical methods first. Place sticky traps under stoves and refrigerators, along walls, and near potential sources of heat, water, or food. Traps will tell you where “hot spots” are. Use a hairdryer to flush roaches out of hiding, and vacuum them up with the hose attachment. Put the vacuum bag inside a plastic bag, seal, and dispose. If anyone in your home has asthma, be sure to use a vacuum with a HEPA filter.

### Using Pesticides on Roaches

Pesticides are chemicals designed to kill pests. They come in many forms such as bug sprays, “bombs” or foggers, liquid concentrates, dust, granules, and baits. Since pesticides are poisons, they should be used sparingly and carefully. Products to control roaches that reduce risks of human exposure include:

- Tamper-resistant bait stations with the pesticide contained inside.
- Gel baits distributed in small dabs along cupboard and wall edges and in cracks and crevices.
- Cockroaches have become increasingly resistant to pesticides, including baits and gels. If new baits have not eliminated cockroach infestations within 30 days, throw them out and replace them with a different brand. Each brand used a unique bait recipe, and probably a different active ingredient (the actual pesticide). Changing brands will address both resistance and aversion (the roaches not liking the flavor of the bait).
- Boric acid in wall voids, behind switches, and along wall edges and cracks.
- Insect Growth Regulators (IGR’s) prevent juvenile insects from maturing and reproducing, causing the colony to collapse. They also can cause these roaches to become deformed as they continue to grow in a shell (exoskeleton) too small for them. IGR’s are effective and non-toxic to mammals, birds, and fish, but they are toxic to crustaceans and should be kept out of streams and ponds. They are available as liquids, in sprays (particularly for fleas), and as slow-dispensing disks. They are a valuable addition to an IPM program against cockroaches. (Note: IGR are not very effective against bed bugs.)
- Avoid using foggers and sprays. You can’t control where the chemicals go, and the risk of exposure is high. Sprays and foggers may also irritate lungs. Also, sprays cause only some roaches to die, with survivors only to return later.

The pyramid explains some of the different tactics used in an IPM approach. Think of each level as a labeled drawer full of different types of tools. For example, tools used against pests in “design/maintenance” focus on prevention of pests. They are also low in risk of human chemical exposures. Try to use tactics on the lowest levels if possible.

### If using pesticides, always

- Read the entire label and all warnings before purchase and again before use!
- Follow the label directions exactly.
- Keep pesticides up high, locked in a cabinet, and out of reach of children and pets.
- Dispose of unused or unwanted pesticides and empty containers at household hazardous waste events scheduled in your area.
- Call your city or county for more information on pesticide disposal. Empty pesticide containers contain pesticide residues and should not be put in regular recycling nor should they be reused.

### Need More Help?

- American Cockroaches
- German Cockroaches
- Oriental Cockroaches

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