

German Cockroaches

Many people mistakenly believe that only "dirty" people get cockroaches, but this is a myth. Every home or commercial kitchen has the potential to have a cockroach problem.



Once a cockroach infestation gets started, its severity is usually determined by the resources available for cockroach survival--food, water and harborage are factors we often control. The biggest cockroach problems are often in homes where there is a clutter problem because, the more stuff people have, especially in the kitchen, the more hiding places for roaches. But, clean, neat and tidy kitchens can still have roaches. For example, cockroaches can hide underneath the labels of canned goods and eat the paste off the labels.

Because cockroaches tend to frequent garbage cans, sewers and other disease-laden locations, germs attach to their body that can transfer to food contact surfaces (utensils, plates) during the normal course of roach activities. These include disease-causing bacteria: Salmonella, Shigella, E. coli, Streptococcus (pneumonia), several helminthes (hookworm, pinworms, tapeworms), and even viruses (poliomyelitis). If this hasn't convinced you they are bad to live with, cockroaches also produce a powerful allergen that causes allergies and asthma.

The biggest problem in U.S. kitchens is the German cockroach, *Blattella germanica*. It is a small cockroach, with two distinctive longitudinal stripes just behind its head. The German cockroach requires moisture regularly, has a high reproductive rate and is small enough to live in small cracks and crevices. Infestations are often at their worst in the late summer months.

Cockroach control.

The standard method of treating for cockroaches has been to spray insecticides on baseboards and in cabinets, with the hope that cockroaches will crawl across the band of dried insecticide and the residue left from the application will kill them. We now know that this type of treatment is not very effective. Reasons why include:



- Cockroaches do not live behind baseboards, but live in dark, damp locations near food and water sources. Efforts to locate and treat these hiding places are much more effective.
- Insecticides are not 100 percent effective and, unless efforts are made to reduce food, water and harborage, populations of the prolific German cockroach are likely to rebound.
- Cockroaches species, including the German cockroach, have developed insecticidal resistance to many insecticides.
- Most insecticidal sprays, especially aerosol treatments, don't have much residual activity. This is also true of "bomb" type applications.

Tools and Tips for Success.

It is possible to eradicate cockroaches, but effort and persistence must be greater than their reproductive rate. To be successful, a multi-tactic approach must be used. This means not relying on a single strategy (like sprays), but using several types of control tactics.

- Sanitation efforts alone (eliminating food, water, and harborage) may not be enough to eliminate a cockroach problem, but will reduce the population and make other control efforts work better.
- Getting rid of clutter is extremely important.
- Eliminating water and food will make roaches move farther to obtain them and come into contact with baits and other control tactics.
- Cleaning cupboards and under/around appliances is important. Keep a vacuum cleaner handy. Vacuuming roaches is an easy way to make a dent in the population. Just be sure to take the vacuum cleaner bag outside afterwards.
- Because roaches usually travel pretty close to where they hide, use sticky traps (glue boards) to see where roaches are hiding. Replace them when the surface is covered with roaches. Over time, glue boards will indicate how well controls are working and identify new infestations.
- The biggest improvement in controlling cockroaches in recent years is the availability of effective bait products. They are available in small plastic containers (bait stations) or as a dispensable gel. Baits use fipronil, hydramethylnon, boric acid or abamectin as their active ingredient. Use gel baits (best) or bait stations in areas where roaches are caught on sticky traps. Bait areas where roach specks are found—these are locations where roaches spend a lot of time.

Other low toxic approaches include:

- **Use boric acid dusts in wall voids or under appliances.** Boric acid, used alone, isn't terribly effective, but a good supplementary treatment. When roaches walk through it, it sticks to their body. They ingest it as they groom themselves and it is a slow-acting stomach poison.
- **Dusts of silica dioxide or diatomaceous earth** kill roaches by abrading their waxy cuticle and desiccating them. Use these in wall voids.
- **Use cold or hot temperatures** to kill roaches. If roaches get into electronic appliances, bag them and put them in the freezer overnight.