

Horticulture Diagnostic Laboratory



Cornell University
Cooperative Extension
of Suffolk County
www.ccesuffolk.org

Extension Education Center
423 Griffing Ave, Ste 100
Riverhead, NY 11901-3071
631-727-4126

Bayard Cutting Arboretum
Montauk Hwy
Great River, NY 11739
631-581-4223



Cockroaches

Injury: Cockroaches are household pests throughout the United States. Although cockroaches are traditionally associated with dirty dwellings, they are being discovered even in the "best of homes." Cockroaches are one of the oldest of insects -- there are fossil remains of them dating back 200,000,000 years. They have survived such a long time because they have demonstrated outstanding ability to adapt to a wide range of habitats.

Cockroaches feed on a variety of foods, with a preference for starchy and sugary material. Cockroaches will sip milk, soda or beer left out or left in unrinsed bottles, nibble cheese, feed on meats, pastry, grain products, sugar -- practically all the foods that we eat. They will also feed freely on book bindings, sizing, inner linings of shoe soles, and dead insects. They carry debris on their legs and bodies and may spread germs and contaminate food. Cockroaches also give off an offensive odor that may ruin food, or may persist on dishes or other items the roaches run over.

Description: There are four types of house-infesting roaches that are commonly seen in New York State. These are the American cockroach, brown-banded cockroach, German cockroach and Oriental cockroach. Cockroaches have a broad, flattened shape and six long spiny legs. They are dark brown, reddish-brown, light brown, or black. The adults of most species have wings. The following describes the 4 kinds of roaches troublesome in buildings and their habits:

Name	Description	Where Found
American Cockroach (<i>Periplaneta americana</i>)	Reddish brown to dark brown. Adults 1 1/2 to 2 inches long.	Develop in damp basements and sewers; forage mostly on first floors of buildings.
Brown-banded Cockroach (<i>Supella longipalpa</i>) -- also called tropical cockroach	Light brown. Mottled, reddish-brown wings on female; lighter wings on male. Adults 1/2 inch long.	Develop and live all over the building.
German Cockroach (<i>Blattella germanica</i>) -- also called croton bug, running bug, and water bug	Light brown. Black stripes lengthwise on back. Adults 5/8 inch long. Most common of the four kinds.	Develop and live all over the building, particularly in kitchens and bathrooms.
Oriental Cockroach (<i>Blatta orientalis</i>) -- also called black beetle and shad roach	Black or dark brown. Traces of wings on females; short wings on males. Female adults 1 to 1 1/4 inches long; male adults a little shorter. More sluggish than other three kinds.	Develop in damp basements and sewers; forage mostly on first floors of buildings.

Life History: Cockroaches undergo a gradual metamorphosis, which mean that there are three stages in their development, egg -- nymph -- adult. The young nymphs resemble the adults, but they are smaller and have to wings.

Cockroaches hide during the day in sheltered places. They come out to look for food at night, and if disturbed, run rapidly for shelter and disappear through openings to their hiding places. Some typical hiding places for roaches include warm, dark, moist places such as under a sink, or behind a dishwasher, stove, refrigerator, and upper cupboards.

Management: All insects need food, water and shelter. Because cockroaches are often attracted by food residue and garbage, you should wash dishes promptly, seal food containers tightly, clean residue on jars and surfaces, and mop up spills. Repair water leaks and sweating pipes. Remove clutter that provides hiding places. *Sanitation is still the best method of cockroach pest management.*

In apartment buildings it may be helpful to place screening over heating ducts, gratings, and other places where roaches may enter. Use caulk to repair holes and cracks in walls. Use commercially available sticky traps to monitor roach

populations, and to aid in control. Traps should be placed in corners and other areas along walls or edges where roaches have been observed. For the German cockroach there is an aggregation attractant sticky trap available. This has given better results when trapping for this species than unbaited traps.



American cockroach



Brown-banded cockroach



German cockroach



Oriental cockroach

(Photographs courtesy Clemson University -
USDA Cooperative Extension Slide Series,
www.Bugwood.org)

Baits with toxicants and insect growth regulators (IGR's) are also available. Bait traps containing boric acid as the active ingredient are considered "least toxic" products. Baits that have insect growth regulators prevent the cockroaches from developing into reproductive adults. For apartment buildings, the entire structure may need to be treated by trained specialists. Choose those using least toxic IPM methods.

The use of insecticides indoors is a questionable practice. The insecticide is only a temporary measure, and if the conditions leading to an infestation are not altered, the insects will likely return. If insecticides are used, make limited applications in areas where roaches hide. To find hiding places, enter a dark room quietly, turn on the lights, and watch where the roaches run to. They typically hide beneath kitchen sinks, and under or behind appliances. *We do not recommend the use of any insecticides on or in food preparation surfaces or appliances. A thorough clean up of such surfaces and appliances is recommended instead.*

Insecticides labeled for consumer use in New York State in 2009 include boric acid, diatomaceous earth, cyfluthrin, deltamethrin, permethrin, hydroprene, lambda-cyhalothrin, and d-limonene. Always read the label and follow the manufacturer's directions when using any pesticide. The insecticides may help initially to knock down the population numbers, but for more permanent control, other strategies are needed also.

Reprinted from *Cockroaches* by Carolyn Klass, Sr. Extension Associate, Department of Entomology, Cornell University, 6/78. 2/2003 revised by Carolyn Klass. Updated 12/2009.

Much of this information has been taken from the USDA Leaflet No. 430, *Cockroaches And How To Control Them*.

The Pesticide Management Education Program (PMEP), in cooperation with the New York State Department of Environmental Conservation (NYSDEC), maintains a web site with a searchable database for pesticide products currently registered in New York State. Individuals who have Internet access can locate currently registered products containing the active ingredients suggested above at <http://pims.psur.cornell.edu/> (NYS PIMS).

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional DEC office. READ THE LABEL BEFORE APPLYING ANY PESTICIDE.