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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 unopened 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.

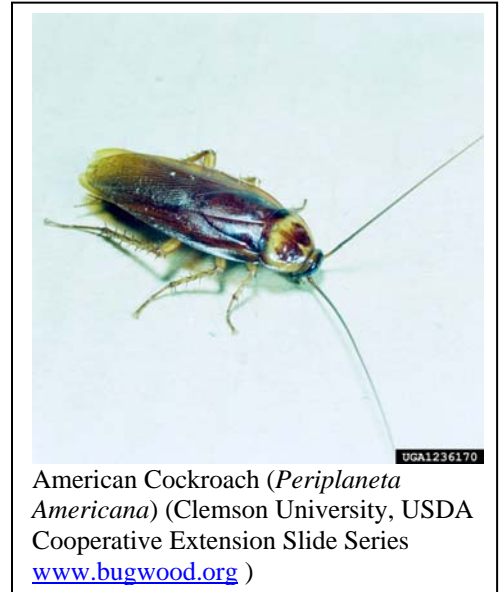
Description: There are four types of house-infesting roaches that are commonly seen in New York State (refer to photographs).

- **American cockroach** - Reddish brown to dark brown. Adults 1 ½ to 2 inches long. Commonly found in developing in damp basements and sewers; forage mostly on first floors of buildings.
- **Brown-banded cockroach** - Light brown. Mottled, reddish-brown wings on female; lighter wings on the male. Adults are ½ inch long. Commonly found developing and living all over the building.
- **German cockroach** - Light brown. Black stripes lengthwise on back. Adults 5/8 inch long. It is the most common of the four kinds mentioned here. Commonly found developing and living all over the building, particularly in kitchens and bathrooms.
- **Oriental cockroach** - Black or dark brown. Traces of wings on females; short wings on males. Female adults 1 to 1 ¼ inches long; male adults a little shorter. More sluggish than the other tree kinds. Commonly found in developing in damp basements and sewers; forage mostly on first floors of buildings.

Cockroaches have a broad, flattened shape and six long spiny legs. They are dark brown, reddish-brown, light brown or black and the adults of most species have wings.

Life History: Cockroaches undergo a gradual metamorphosis, which means that there are three stages in their development, egg -- nymph -- adult. The young nymphs resemble the adults but they are smaller and have no 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, behind a dishwasher, stove, refrigerator and upper cupboards.



American Cockroach (*Periplaneta Americana*) (Clemson University, USDA Cooperative Extension Slide Series www.bugwood.org)



German cockroach (syn. croton bug, running bug and water bug) (*Blattella germanica*) (Clemson University, USDA Cooperative Extension Slide Series www.bugwood.org)

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.



Brown-banded cockroach (syn. tropical cockroach) (*Supella longipalpa*) (Adults, nymphs and oothecae (egg capsule) (F.E. Wood, HGIC University of Maryland)



Oriental cockroach (syn. black beetle and shad roach) (*Blatta orientalis*) (Clemson University, USDA Cooperative Extension Slide Series www.bugwood.org)

Baits with toxicant and insect growth regulators (IGR's) are also available. Bait traps containing boric acid as the active ingredient are considered "least toxic" products. Combat™ or Maxforce™ are examples. The 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 include Baygon, cyfluthrin, deltamethrin, permethrin, silica gel, pyrethrum, and tetramethrin. 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.

June 1978, Prepared by: Carolyn Klass, Sr. Extension Associate, Department of Entomology, Cornell University.

February 2003, Revised by: Carolyn Klass.

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. Homeowners who have Internet access can locate currently registered products at <http://pmep.cce.cornell.edu/pims/current>. Several different queries are available that will produce a summary for the product(s) that the system locates. If the system fails to locate the product in question, then that

product is not currently registered in New York State. The database also provides a summary of important information related to every product currently registered. Two data fields "Status" and "Expiration Date" are provided in each summary. Products with a status of "Registered - Discontinued" are currently registered but will probably be discontinued for use, sale, and distribution in New York State after the date noted in the "Expiration Date" field.

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.