



German Cockroach

Overview

The German cockroach (*Blattella germanica*) is a species of small cockroach known for finding its way indoors and proliferating. These insects can be transported in your luggage, grocery bag, thrifted couch, etc. They can also jump from apartment to apartment through light switches, electrical outlets, and water pipes. They are general feeders but are particularly attracted to fermented food and beverage residues.

Identification

- Adults are approximately ½ long. Adult males and females are elongated, light-brown colored, and have two black stripes on either side of the pronotum.
- Nymphs are smaller, darker, and oval shaped.



Figure 1. German cockroach adult female. Photo credit: P.G. Koehler, University of Florida



Figure 2. German cockroach adult male. Photo credit: P.G. Koehler, University of Florida



Figure 3. German cockroach 14-day old nymph. Photo credit: C. Montero, University of Florida

Life Cycle & Habits

- Females produce one egg capsule every three to four weeks. Each capsule contains 25-45 eggs. The females will hold onto the egg capsules until they are ready to hatch.
- After hatching, nymphs will reach sexual maturity in 36 days. They can live up to a year.
- Most German cockroaches are drawn to kitchens and bathrooms due to the food sources and moisture but spend 75% of the time tucked away in dark cracks and crevices.
- Spotting them in the daylight is a good indication that their food supply is limited.

Insecticide Resistance

In homes, apartment buildings, and other living areas with numerous generations of German cockroaches; commonly used insecticides are becoming less effective due to repeated applications. University researchers have documented resistance in German cockroach populations to pyrethroid insecticides including bifenthrin, cypermethrin, deltamethrin, and permethrin.

Control Strategies

Due to insecticide resistance and their ability to quickly reproduce, controlling German cockroaches can be challenging so a multi-pronged approach is required to achieve long-term success.

- **Sanitation/Prevention:**

- Avoid leaving dishes in the sink, quickly dispose of trash, clean spills, identify potential water sources, and properly store food.
- Cleaning and sanitation has been shown to effectively reduce population levels.
- Make sure all potential entrances (cracks/crevices) into the home are sealed.



Figure 4. Heavily infested apartment with dead roaches, feces, and exoskeletons.
Photo Credit: NC State University

- **Baits:**

- Cockroach gel baits can be utilized to place active ingredient precisely in the most trafficked areas. Entomologists at North Carolina State University recommend Avert® DF, Combat Max®, and Maxforce® FC Magnum.
- The roaches ingest the product and carry the insecticide back to their nests. Effectively killing and reducing/eliminating the population in hiding.
- Baits can take several weeks to significantly reduce populations.

- **Insecticide Sprays:**

- Pyrethroid products like Talak™ 7.9% F can be very effective in many cases.
- Where pyrethroid resistance exists, a non-pyrethroid product like Antapex™ is a good alternative option.
- Target crack and crevice applications along with areas under sinks in kitchens and bathrooms.
- Sprays should not be the only method of control used since cockroaches not killed by the initial application can reproduce quickly.

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