

BEST MANAGEMENT PRACTICES

GERMAN COCKROACHES *BLATTELLA GERMANICA*



Overview

German cockroaches are considered a domestic cockroach, living mainly inside of structures. From an economic standpoint, they are the most important pest species pest management professionals (PMPs) deal with. German cockroaches are one of the most difficult pests for PMPs to control. Control can be difficult due to a number of factors including: fast reproduction, resistance mechanisms, gaining customer cooperation for access and improved hygiene, easy introduction of new populations, thoroughness of treatment and location of harborages. German cockroaches can contaminate food, homes and buildings with feces, allergens and pathogens. They are known to carry salmonella, e. coli and other disease agents.

Environmental Condition

Presence of cockroaches depends on a) food b) water c) warmth d) harborage/hiding sites. Within homes and restaurants they are most often found in kitchens or other areas where food is stored. Another key element for German cockroach infestation is clutter. More clutter leads to more harborage areas. Sanitation also plays a key role in the extent of an infestation. When sanitation is

poor, populations can explode due to many available food sources and harborages. Poor sanitation can also inhibit control. Areas of kitchens with high levels of greasy deposits can act as food sources and bind up chemical treatments.

Symptom and Identification

The adult German cockroach is approximately 5/8" long, pale to medium brown with 2 distinct dark stripes on their pronotum. Males have a more slender, tapered abdomen than females. Both males and females have well developed wings, but they do not fly. Adult females can also be distinguished from males since they are often seen carrying an egg capsule on the end of their abdomens. The egg capsule is carried until the eggs are ready to hatch when it is deposited in a suitable area. The egg capsule is about 1/3 of an inch long and a light brown in color. Each capsule will contain up to 32 young. These newly hatched, immature stages are small, wingless and almost black in color. Immature stages have a single, light colored stripe running down the middle of their back. Signs of an infestation may include: accumulation of dark spots (fecal smears) in corners or cracks and crevices,

caste skins, empty egg capsules, a distinct musty odor, and live or dead cockroaches.

Management

Cultural

1. Remove clutter and food waste to reduce harborages and food sources.
2. Minimize potential water sources e.g. leaking taps.
3. Keep a regular cleaning schedule which includes regular emptying of waste bins.
4. Food that is opened should be kept in sealed, air-tight containers to keep pests out.

Chemical

A proper inspection of potential harborage areas should be done to identify areas of activity needing treatment. All cracks and crevices should be inspected. Deep cracks or crevices can be inspected using a flushing/contact aerosol such as CB-80[®] Insecticide. Prior to any insecticide be sure to read the label and remove any food from the area. CB-80[®] will flush out pests from these hard-to-reach areas. The contact efficacy of CB-80[®] will also help kill any pests in the harborage and begin reducing the population. Once harborage and resting areas are identified, a product such as Endius[™] Cockroach Gel Bait should be used to maximize feeding and kill. Baiting close to harborages is important, as immature nymphs will typically only venture out a few feet from where they were hatched in search of food. When baiting, use many small placements instead of just a few larger ones. Other areas further from harborages and bait placements can be treated with the use of a residual insecticide such as Transport[®] Mikron[®] Insecticide. Mix 1.25 fl. oz. of Transport[®] Mikron[®] per gallon of water and treat according to label directions. To help manage resistance, rotating active ingredient classes between baits and residual insecticides

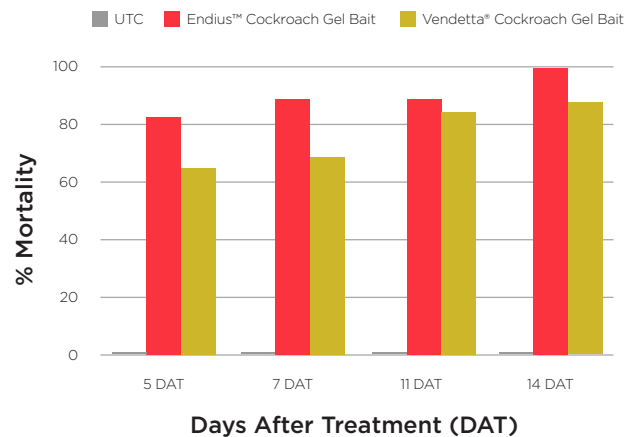
can help establish a foundational approach to integrated pest management (IPM).

References

Mallis, Arnold. Handbook of Pest Control. GIE Media Inc., 2004 9th ed.

Bennett, Gary W., Owens, John M., Corrigan, Robert M. Truman's Scientific Guide To Pest Management Operations. Advanstar Communications 2003 6th Ed.

German Cockroach (*Blattella germanica*) Efficacy Over Time



EAS study number: S23-201276-L1 V5
Species: German Cockroach (*Blattella germanica*)
Date of Exposure: 23 Oct 2023
Time Point: Freshly Applied Baits

ENDIUS[™]
COCKROACH GEL BAIT

CB-80[®]
INSECTICIDE

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