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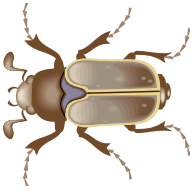
Special Publication 00-07

Cockroaches

The Environmentally Friendly Pest Control Series—No. 1

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The cockroach may be the most objectionable household insect. They consume human food and contaminate it with saliva and excrement. They also produce secretions that impart a characteristic stinking odor. There are more than 3,500 known roach species, 57 of which are in the United States. Most of the roaches observed in the Las Vegas area are German, Oriental, American, or brown-banded. Cockroaches can carry boils, dysentery, hepatitis, plague, salmonella, typhus, and several other diseases.

Cockroaches are primarily carbohydrate eaters. They feed on just about anything of vegetable origin. But cockroaches also like meat. While they prefer starch, they thrive on grease, sweets, paper, soap, cardboard, book bindings, ink, shoe polish, and even dirty clothes. They've been known to gnaw on a fingernail while people sleep and on infants' eyelashes. They are especially fond of beer.

Cockroaches can live for 3 months without food and for 30 days without water. Since they taste their food before eating it, they learn to avoid chemically-treated products. Therefore, most chemicals do not provide good long-term control.

Pesticide sprays, such as chlorpyrifos, will kill only nymphs and adults. Therefore, to be effective, the pesticide would have to be applied 2 or 3 times at 2 week intervals to kill new nymphs as the eggs hatch.

The one-shot killing of mature cockroaches may provide the homeowner with a false sense of security because the egg stage remains a potential pest problem.

There are several non-pesticidal approaches to managing cockroaches, including food, water and harborage removal, natural repellents, non-toxic and low toxicity dusts, baits, repellents, and mechanical control. The efficacy of each method may vary and combinations of methods may be necessary. In fact, any control program should include as many methods as possible.

Since cockroaches like to eat carbohydrates of vegetable origin, meat, grease, starch, sweets, and beer the first act of cockroach control is to reduce or eliminate access to these foods.

NATURAL-CONTROL METHOD

Sprays (Repellents)

- Eucalyptus oil (Dr. Bronner's Eucalyptus Soap)—3 ounces per 1 gallon of water
- Dr. Bronner's Peppermint Soap—3 ounces per 1 gallon of water
- Garlic oil
- Rosemary oil--3 ounces per 1 gallon of water
- Insecticidal soap—follow the directions on the container and add 5 drops of citrus oil per gallon before spraying.
- Fabric softener dryer sheets—lavender scented
- Herbal armor

Use any of the above sprays alone or in combination. Apply indoors or in outside areas.

Sprays (Repel and Kill)

- **Victor—Ant and Roach Killer**
- **Victor—Wasp & Hornet Killer**

- **Schultz—Insect Spray**
- **Safer—Yard & Garden**
- **Safer—3-in-1 Garden Spray**
- **Ortho--Ecosense**

Other Repellents

- Okra, raw or stewed. Place on a dish under sinks.
- Stewed cucumber peel. Place ½ cup of the stewed peel in areas where cockroaches congregate.
- Crushed bay leaves can be used to repel cockroaches.

Dusts

- Amorphous silica aerogel (Drione®)
- Diatomaceous Earth (DE), agricultural grade
- Organic One—Fire Ant Killer (DE)
- Boric acid—cockroaches are not repelled by boric acid, but it is a product most likely to kill them. If boric acid is used, it may take 5 to 10 days for roaches to die; but, if kept dry, boric acid can remain effective for years. Apply a thin layer of product; roaches avoid piles of boric acid. It is most effective if mixed with food products that cockroaches like. Use care around children and pets because boric acid can be toxic to humans and pets.

Baits

Baits are very important for cockroach control because for every cockroach killed using bait, 20-40 additional roaches may die. This occurs because a cockroach will eat the feces of poisoned roaches and will also eat the dead or dying roach. This allows for the transfer of bait from roach to roach.

Bait 1

Saturate a cloth with stale beer and place on the kitchen floor at night. Cockroaches will consume the beer and become intoxicated. In the morning they will be lying on the kitchen floor. Kill them or they will recover and crawl away.

Bait 2

Flour (white), Cocoa, Oatmeal, Boric acid, Plaster of Paris

Use 1 part of each ingredient and mix in powder form. Place where roaches congregate. Use care around children and pets because of the boric acid.

Bait 3

Fill a small, flat bowl with Epsom salts. The magnesium in the Epsom salts will upset the biological system of a roach and prevent feeding; therefore, the roach will die.

Bait 4

2 tablespoons citrus pulp
3/4 teaspoon brown sugar

1/2 teaspoon corn meal

1/4 teaspoon boric acid

Mix and use as bait. Use care around children and pets because of the boric acid.

BIOLOGICAL-CONTROL METHOD

Parasites

- Anastatus tenvites
- Comperia merceti
- Tetrastichus hagenowii
- Tetrastichus incertus
- Nematodes

MECHANICAL-CONTROL METHOD

- Roach pheromone traps can be used to determine the extent to which roaches are present in an area or to trap the insects so they can be killed. The pheromones are chemical signals that allow insects to communicate and are also used to attract insects of the opposite sex. Pheromone traps should not be used as a single source for cockroach control. Pheromone traps are usually most effective if placed in the garage or under sinks.
- Sticky traps.
- Electrical tape, sticky side up.
- Shaving cream will repel cockroaches.
- Hair spray will immobilize cockroaches. This is a good way to deal with cockroaches in a bathroom since hair spray is frequently located there.
- Use a 1-quart Gatorade jar and grease the **inside** of the neck with vegetable oil or petroleum jelly. Place some bands of masking tape on the outside of the jar to make climbing easier for cockroaches. As a bait, put raw, sliced potatoes and slightly moistened white bread in the jar. Leave the lid off. Set the jar in areas where roaches congregate. Leaving 1 inch of Gatorade in a jar also makes a good bait.
- Place coffee grounds in a one pint jar. Add about one inch of water to the jar. This is very effective outdoors but can also be used indoors. Replace the water as necessary.
- Other baits for the Gatorade jar include: apple pomace, stale beer, banana peel, a few drops of anise extract, or boiled raisins.
- Chickens eat a wide range of insects, including ticks and cockroaches. Therefore they can be used for insect control. Chickens provide natural pest control.

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