



(J. Kalisch 1995)

Figure 1-1. "Oh oh! ... Looks like this is gonna to be tougher than I thought!"

Chapter 1

Introduction

There are over 3,500 cockroach species existing in the world. Thank goodness, only four species live and breed in the northern United States! These four species: the German, brownbanded, oriental (a.k.a., waterbugs), and American cockroaches, are world travelers, living with humans nearly everywhere across the globe.

The presence of cockroaches in the home causes distress to home and apartment dwellers. Part of the distress is because many people dislike any “bugs” in the home. In addition, there is a false belief that cockroaches only live in dirty homes, so there is a negative stigma attached to having them. Many people are embarrassed to admit they share their living quarters with cockroaches.

The simple truth is cockroaches live in dwellings belonging to all ethnic groups and all economic classes of people. Sloppy housekeeping does not automatically mean a person will have an infestation; likewise, immaculate housekeeping does not exempt you from having cockroaches. Because they are usually brought into non-infested residences through human activities, even clean homes can get cockroaches.

However, a clean and tidy home will not sustain as many cockroaches as an identical home which is cluttered and dirty, because there is less food for the cockroaches to eat and fewer hiding places. Other factors like humidity, drippy faucets and other water sources are very important in influencing infestation levels. You will learn how to modify these factors to suppress your cockroach infestation in Chapter 5.

Cockroaches and Human Health

Food Poisoning. Did you know cockroaches have been implicated in cases of *Salmonella* food poisoning? They can also carry *Staphylococcus*, *Streptococcus*, coliform and other bacterial pathogens on their bodies.

The main reason cockroaches harbor and transmit disease pathogens is they will eat just about anything, including discarded food in our kitchen trash can and cat feces in the litter box. After feeding, disease bacteria can remain in the cockroach digestive system for a month or more. Later, human food or utensils can become contaminated with cockroach feces. Cockroaches can mechanically transfer germs by crawling over bacteria-laden substances and later walking over dishes and eating utensils.

Allergies and Asthma. Some people are allergic to cockroaches. In infested homes, proteins in crushed cockroach body fragments and feces become a component of house dust. After inhaling dust in a cockroach-infested home, sensitive children and adults develop allergic symptoms similar to those of hay fever: runny nose, itchy eyes and sneezing.

Some people who are allergic to cockroaches may develop asthma, which can be a life-threatening medical condition. Asthma is a chronic lung disorder characterized by obstruction of airways. Symptoms of asthma include coughing, wheezing and difficulty in breathing. The most severe



(B. Ogg)

Figure 1-2. Cockroach allergen, found in cockroach body fragments and feces causes asthma in sensitive individuals

asthmatic attacks can lead to death.

Cockroach-Induced Asthma. An estimated 20 million Americans have asthma which has greatly increased in the last few decades. There are ethnic differences in the incidence and mortality associated with asthma. Children who live in inner city, high-density housing, particularly African American and Hispanic children, are more likely to have asthma. Although asthma may have several potential causes, cockroach allergens in the indoor environment are a major asthma trigger. Research has shown 23 to 60 percent of urban dwellers with asthma were allergic to cockroaches.

About 50 percent of asthma cases are caused by allergies. Studies have shown most asthmatics who are allergic to cockroach allergens will have an asthma attack after a single inhalation of allergens. Other potential asthma triggers include dust mites, animal dander, mold and tobacco smoke. People with asthma may react to more than one allergen so identifying and reducing exposure to all allergens are needed to manage asthma effectively.

For people who are sensitive to cockroach allergens, steps to reduce or eliminate cockroach populations will help reduce exposure to allergens and may prevent asthma attacks.

Can I Control Cockroaches Myself?

You may be asking yourself, “Can I treat my home for cockroaches, or do I need an exterminator?” A pest control service can be useful for part of your cockroach control program, especially if you have a severe infestation and/or do not want to handle insecticides. The safe use of insecticides also requires proper protective clothing and may require some specialized equipment.

The main advantage of doing-it-yourself is the cost savings. Another advantage is you know your home better than a stranger does. For instance, you know where the harborage areas are, and, because you are there more often, you are better able to monitor progress and evaluate control efforts. In addition, insecticide treatments are only one aspect of cockroach control, and pest control firms may not emphasize other important tactics needed for

effective control.

Did you know most insecticides registered for cockroach control are *general use* insecticides? General use insecticides can be used without special training, although it is still important to read and follow label directions. Some manufacturers have labeled their cockroach control insecticides “*for use only by certified applicators*,” which means you cannot use them unless you have taken training and passed a state-licensing examination. Most professional-use products are marketed to pest control professionals so these products will not be found in supermarkets, hardware or discount stores where you might first go to purchase them. But, there are very effective products—some even identical to those sold to the professional—you may be able to find locally.

Whether you wish to do-it-yourself or hire a professional, you need to know what products are most effective and how to use them safely and effectively. You will learn about them in Chapters 6-9 of this manual. But, do not skip over Chapters 2-5. In these chapters, you will learn the tricks-of-the-trade to make your control program a success.

Multiple Tactics Approach

Because cockroaches are very adaptable, the most effective type of cockroach control includes using several methods at the same time to reduce cockroach populations. Agricultural pest management specialists have used this approach for years. This multiple tactics approach is called *Integrated Pest Management* or IPM.

The basic components of IPM are:

- 1) Identify the pest.
- 2) Understand the biology and behavior of the pest.
- 3) Determine if control is needed.
- 4) Identify all appropriate control measures for the specific situation, including non-chemical and chemical measures.
- 5) Implement safe and effective control tactics.
- 6) Evaluate the control efforts.

In managing cockroaches, this IPM approach includes monitoring suspected infestation areas before treatments to find out the pest species and where the infestation is located. Later on, you’ll want

to monitor the same areas to see how successful your control program has been. Preventing entry, using good sanitation practices, sealing cracks and crevices, careful placement of baits, using insect growth regulators with low-toxic insecticides are tactics which will get a cockroach problem under control.

Regardless of whether you decide to do-it-yourself or hire a pest control company to help you with the insecticide treatments, this handbook will present the basic control tactics needed to suppress cockroaches in your dwelling. If all control tactics are used, significant reductions in a cockroach population can be made. Eradication is even possible.