Cockroaches are found virtually everywhere. While most live wild in the tropics, a few species choose to enjoy the moist, even temperatures humans maintain in their homes and workplaces.

Cockroaches carry many disease-causing organisms, such as *Salmonella* and viruses, such as Hepatitis. When they run over food they leave filth and may spread disease. Most cockroaches produce an oily secretion that has a repulsive odor. This odor may also be imparted to dishes that are apparently clean. Ink-like excrement also contributes to this nauseating odor.

Some people experience allergic reactions to cockroaches. The allergic response is caused by either ingesting contaminated food; or inhaling dried, airborne fecal particles or crushed insect parts.

**DEVELOPMENT OF THE COCKROACH**

The cockroach has three life stages: the egg, nymph and adult. Cockroach eggs are deposited in a leathery case or capsule called an ootheca. This capsule is usually dropped or glued to some surface by the female as soon as it is formed; the female German cockroach carries the capsule protruding from her body until the eggs are ready to hatch. There may be from 30 to 40 eggs in the capsule of the German cockroach.

The newly hatched nymphs have no wings and shed their skins (molt), several time before becoming winged adults.

**WHERE TO LOOK FOR COCKROACHES**

Cockroaches hide in dark, sheltered places during the day and come out to feed at night. They may be found around kitchen sinks or drain boards, under counter plumbing, hot water heaters, in cracks around or underneath cupboards and cabinets or inside them (especially in the upper corners), behind drawers, around pipes or conduits (where they pass along the wall or go through it), behind window or door frames, behind loose baseboards or molding strips and many other places. A telltale sign of cockroaches is coffee ground looking material stuck under shelving and by cracks in walls. This material is the cockroach excrement.

**HABITAT ALTERATION**

Since infested areas provide needed harborage for pests, changing or eliminating some of the more favorable elements will make cockroach survival less successful. Such changes commonly include increased sanitation, moisture reduction, and the elimination of clutter. Inspect all bags and boxes of food and laundry brought into the facility. Destroy any cockroaches or egg capsules that you may find. Do not keep cardboard stored in your facility as they may contain cockroach eggs that will hatch inside your facility.

**SANITATION**

Good housekeeping is the most important factor in preventing and controlling cockroach infestations. Cockroaches cannot live without food, water, and shelter. Cleaning will aid considerably in cockroach control. Store food in tight...
containers and avoid spilling flour, cereals and other dry goods in cupboards or on pantry shelves. Do not leave remnants of food on counters, tables, floors, or sinks overnight. Sweep up any crumbs or bits of food from the floors throughout the facility. Put all food waste and other waste materials in tightly covered garbage containers. Even small amounts of food contribute greatly to any cockroach infestation.

STRUCTURAL REPAIRS

Structural repairs are necessary when harborage sites are located at deteriorated walls or around pipes entering walls. Make it difficult for roaches to enter your facility by filling all openings around popes passing through floors or walls with patching plaster putty, or plastic wood, particularly if cockroaches are coming in from adjoining buildings or from outside. Keep doors and window screens in good repair and make sure that there are no cracks between them and the frames. Poorly constructed shelving or tables provide crevices or voids for harborage. These items should be caulked, repaired or replaced if.

TRAPPING

The use of roach traps is invaluable in monitoring cockroach infestations. While traps can be useful to reduce light infestations, they do not effectively control heavy cockroach infestations.

Traps are most effective when placed in locations where cracks and crevices, or voids may harbor roaches. Place traps under sinks, in cabinets, near stoves or refrigerators, or near floor drains or floor sinks.

CHEMICAL CONTROL

If cockroaches become established, chemical control may be needed in combination with good sanitary practices. A professional pest control operator is needed for chemical applications as only certain pesticides are approved for use in food facilities. California law requires these businesses to be certified and licensed. These professionals have the equipment and training to do a thorough job.

Roaches that have been poisoned will sometimes come out the next day and move erratically. Otherwise, if they are seen during daylight hours this can be taken as a sign of a much bigger infestation. This is a serious public health issue and must be addressed when it is discovered. Remember that a comprehensive roach control program includes aspects of each of the methods discussed in this bulletin.

If you have any more questions, please contact an office near you.

*Document available in an alternate format upon request