

## GENERAL FACTS

- 3,500 species of roaches worldwide.
- Seven species invade homes in the United States.
  - **German**
  - **Australian**
  - **Brown**
  - **Oriental**
  - **American**
  - **Smoky Brown**
  - **Brown Banded**
- Roaches are tropical insects that have adapted to man's environment.
- Roaches are nocturnal (active at night), excellent climbers and can fit into small cracks because of their compressed shape.
- Roaches can detect and avoid many commonly used insecticides.
- The German cockroach is the major household pest in the United States.
- Roaches can thrive on small amounts of human food scraps and moisture from condensation.

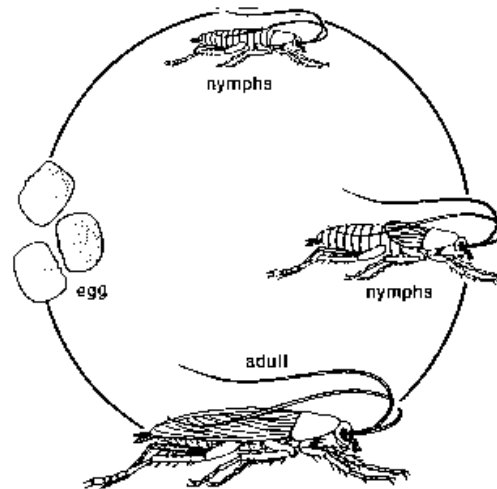
## IMPORTANCE OF COCKROACH CONTROL

- Roaches are mechanical carriers of disease causing organisms. They are capable of spreading typhoid, dysentery, hepatitis, and leprosy.
- Roaches can spread food poisoning *Salmonella* bacteria and have also been implicated in allergic reactions.
- Roaches also consume human food, creating a direct economic loss.
- Roaches have been found to short circuit electrical appliances causing fires and breakdowns.

## HOW DO ROACHES LIVE & GROW?

1. Roaches pass through 3 life stages:
  - egg (ootheca)
  - nymph
  - adult
2. Roaches lay eggs in groups in a capsule called an ootheca.
3. Hatching nymphs are smaller but resemble adults without wings. They are extremely active.
4. Nymphs grow and molt (shed their skins) through 7 stages over a 30 week period.
5. Roaches have chewing mouth parts.
6. Roaches remain in dark warm harborages when not foraging for food or water.
7. Roaches defecate leaving small dark brown specks which may be useful in detecting an infestation.

Diagram Of Roach Life Cycle



## COCKROACH CONTROL MEASURES NON-CHEMICAL

1. Thorough cleaning will deprive roaches of their food source. Food splatters and particles should be cleaned up promptly.
2. Sealing openings will exclude roaches from the interior of the home and eliminate harborage.
3. Avoid allowing clutter of newspapers, magazines, or piles of clothing to accumulate. This will also reduce harborage.
4. Garbage should be kept in a closed container.
5. Pet food should not be left out continuously, but picked up after feeding.
6. Repair or report to manager any leaking plumbing. This will deprive the roaches of water.
7. Check incoming boxes or bags of groceries or other materials to prevent bringing roaches in with them.

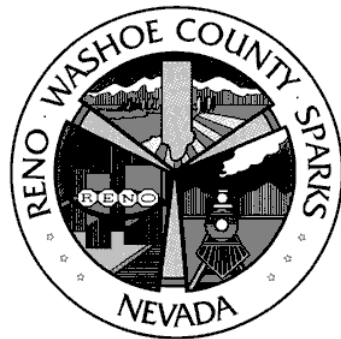
## INSECTICIDAL CONTROL

1. A thorough chemical treatment for cockroaches should include:
  - aerosol flushing compound (e.g., pyrethrum)
  - crack & crevice spray (e.g., residual)
2. In order to be effective against newly hatching German cockroaches, a repeat inspection and/or chemical application should be made about 1 month following the first application.
3. Cooperate fully with your pest control operator. Remove all dishes, pots, pans, and food stuffs from cupboards and cover them prior to treatment.

WE WISH TO ACKNOWLEDGE THE FOLLOWING SOURCES FOR SUPPLEMENTAL INFORMATION AND ILLUSTRATIONS CONTAINED IN THIS BROCHURE:

Truman's Scientific Guide to Pest Control Operations. Published by Purdue University, Edgell Communications. 1988.

Roach Facts (brochure) Published by Zoecon Corporation. 1984.



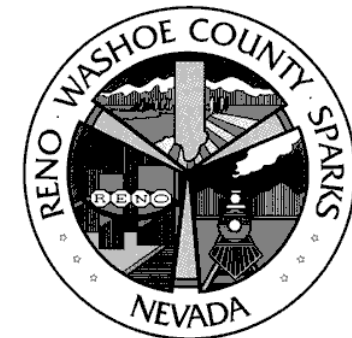
DISTRIBUTED BY :  
WASHOE COUNTY DISTRICT HEALTH  
DEPARTMENT  
ENVIRONMENTAL HEALTH SERVICES  
VECTOR-BORNE DISEASES PROGRAM

P.O. Box 11130  
Reno, NV 89520  
(775) 785-4599



# ***COCKROACHES AND THEIR CONTROL***

**DISTRICT HEALTH**



**Department**