Insect and rodent control is both an economic and sanitation concern for food service establishments. Infestations of insects and rodents destroy food supplies and may contaminate food with agents of foodborne illness.

In most cases, pest control can best be handled by a professional pest control company. Pest control technicians must be certified by the State of Wisconsin. A good pest control contract will include the pest control technician reporting, verbally and in writing, any evidence of infestation to a manager and advising on preventative measures, such as rodent proofing and sanitation. (Be cautious of services offering very low prices.)

The Wisconsin Food Code considers pest control a critical item and states that the presence of insects, rodents, and other pests shall be controlled to minimize their presence on the premises by:

1. Routinely inspecting incoming shipments of food and supplies.
2. Routinely inspecting the premises for evidence of pests.
3. Using methods, if pests are found, such as trapping devices or other means of pest control.
4. Eliminating harborage conditions.

The Wisconsin Food Code also states that dead or trapped birds, insects, rodents, and other pests shall be removed from control devices and the premises at a frequency that prevents their accumulation, decomposition, or the attraction of pests.

### RATS AND MICE

**Facts**

1. A female mouse will have an average of 8 litters per year, with each litter averaging 5 to 6 pups. A female rat averages 3 to 7 litters per year, with each litter averaging 5 to 12 pups. Mice and rats live approximately one year.
2. Mice can fit through openings as small as ¼ inch. Rats can fit through openings as small as ½ inch.
3. Each mouse can produce an average of 50 droppings per day. Each rat can produce 30-180 droppings per day.

**Measures to Control Rodents:**

1. **Exclusion** is the best defense. Seal all holes in exteriors walls/foundations, including spaces around utility lines. External doors should be tight-fitting and self-closing.
2. **Eliminate Shelters.** Keep the outside free of piles of garbage, cardboard or other debris. Inside, remove all unnecessary stored materials. Remaining materials should be kept at least 6”-8” above the floor.
3. **Eliminate Food.** Garbage should be stored in rodent-proof containers (with tight fitting lids) at all times. Reduce the availability of water by eliminating dripping faucets and any other exposed sources of water. Replace all defective sewer pipes and seal any other openings such as clean-outs.

**Extermination**

1. **Traps** should be placed along runways, with the trigger at a right angle to the wall.
2. **Poison** must be place in a covered tamper-proof bait station.
3. Traps and baits should be checked frequently.
COCKROACHES

Facts
1. A female German cockroach egg capsule contains around 40 eggs. A female may produce up to eight egg capsules in a lifetime (cockroaches live up to a year).
2. Cockroaches can live in temperatures from 10°F to 140°F.
3. Cockroaches prefer warm, moist, dark places and they are more active in the evening.

Measures to Control Cockroaches
1. **Regularly and thoroughly clean** all food storage, food preparation and food service areas. The accumulation of food scraps should be avoided. Roaches will hide, breed and live in areas such as utility rooms, along base covings, behind cooking equipment, or in any moist dart area.
2. **Seal** all cracks in the walls and floors; and seal all loose-fitting metal tightly to the walls.
3. **Inspect** all incoming boxes and produce crates. **Discard** boxes when empty. **Store** all food items in tightly covered containers at least 6” above the floor.
4. **Repair** any leaky plumbing or sources of condensation.

Extermination
1. Use **glue boards** for monitoring and controlling small infestations.
2. **Poison baits** are less effective if other food sources are available.
3. **Pesticides** must be approved for use in commercial food establishments. Tracking powder pesticides may not be used in a food establishment. Restricted use pesticides can only be applied by a licensed and certified pest control applicator.

FLIES

Facts
1. The female fly may lay as many as 3,000 eggs in a lifetime. In warm weather it takes approximately 10 days for the eggs to develop into adult flies.
2. Because flies don't have chewing mouth parts they must vomit on solid food to soften it for ingestion. This procedure can contaminate food, work surfaces and equipment.

Measures to Control Flies
1. **Good sanitation** and garbage disposal practices are the best methods to control flies.
2. **Exclude** flies by sealing or screening all outer openings. Outside doors should be self-closing. Fans/air curtains may also be used to aide in the exclusion of flies.
3. **Eliminate food, shelter and breeding places** by the use of nonabsorbent garbage containers with tight-fitting lids. Frequently clean garbage storage containers and areas.
4. **Drains** must be kept clean.

Extermination
1. **Pesticide** sprays must be approved for use in commercial food facilities.
2. **Sticky** traps and tapes cannot be placed over any food storage or preparation area or clean utensil storage area.
3. **Bug Zappers** and other insect control devices cannot be used in food preparation, utensil washing or utensil storage areas. Insects must be retained in the device.

STORED PRODUCT PESTS

Stored product pests such as beetles and moths can also infest food service establishments. These pests can be controlled by using proper sanitation and food rotation practices (such as first-in, first-out) and by keeping food storage areas cool and dry. Infested products must be discarded.