

Pest Management

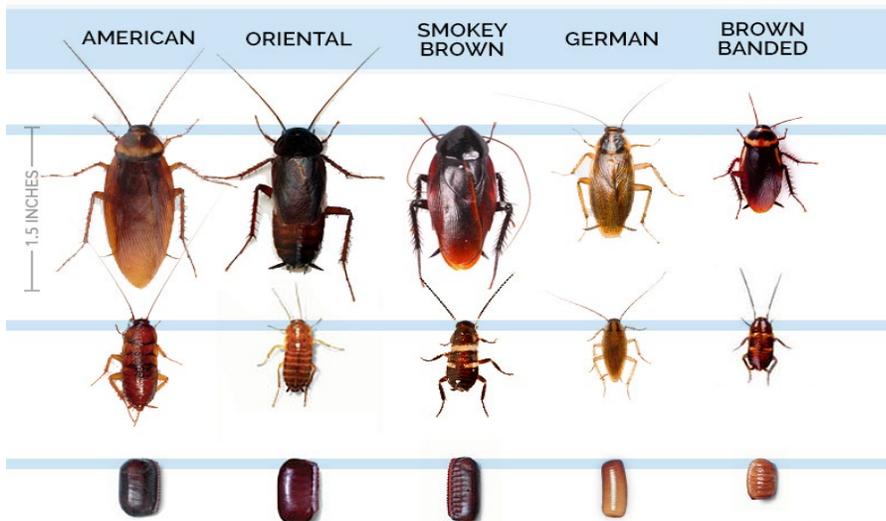
Pests are animals or insects that damage or contaminate foods and cause health/economic problems. Pest infestations must be prevented because they spread foodborne diseases, damage property, and contaminate food supplies. The pests which are of greatest concern in a food establishment are flies, cockroaches, rodents, pantry pests, and birds.

FLIES



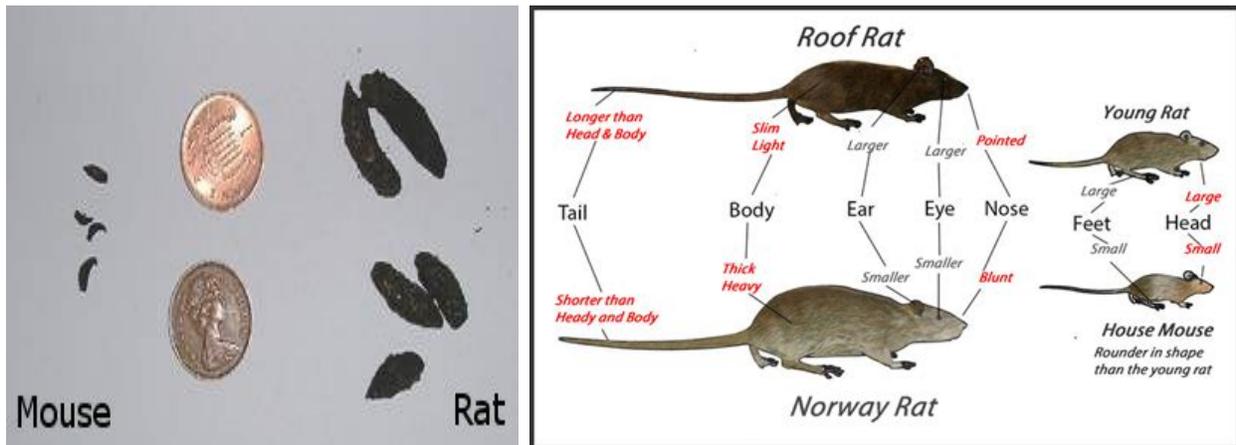
Flies carry pathogens such as *E. coli*, *Salmonella*, and *Shigella*. They pick up the bacteria from garbage, spoiled foods, animal remains, and feces which stick to their bodies, legs, and hairs. Some of the bacteria are transferred when they land on the food.

COCKROACHES



Cockroaches transmit foodborne pathogens such as *Salmonella*, *Vibrio cholera*, and *Staphylococcus aureus* found in their gut and outer body. Cockroaches live in areas where food and water are provided and, are very active at night. The German cockroach is the most common cockroach found in food establishments. Other cockroach types are the American, Oriental, and, Brown-banded.

RODENTS



Rodents cause extensive damage to the food supply, property, and buildings. They gnaw through containers of food, walls, floors, and wiring (materials that are softer than steel) to keep their teeth short and sharp. Rodents carry mites and fleas, and spread diseases such as Salmonella, Trichinosis, Swine dysentery, and Hantavirus. Rodents urinate and leave droppings on food, food packages, equipment, in and around buildings. Fresh droppings are shiny, black, and rubberlike. Rodents are excellent swimmers, night animals, have poor eyesight, and prefer narrow concealed routes when traveling. The most common rodents found in food establishments are the house mouse, roof rat, and Norway rat.

REQUIRED CONTROL MEASURES FOR PESTS AND RODENTS

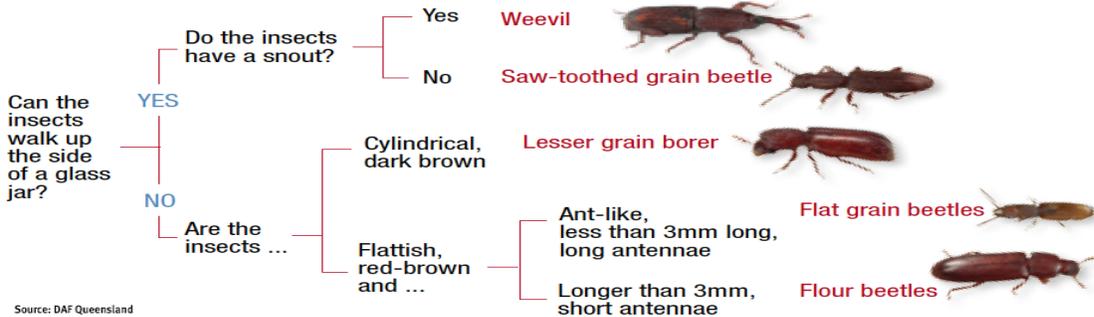
- (1) Routinely inspecting incoming shipments of food and supplies;
- (2) Routinely inspecting the premises for the evidence of pests;
- (3) Using appropriate methods of pest control
- (4) Eliminating harborage conditions.

Protect outside by filling or closing holes and other gaps along floors, walls, and ceilings; tightfitting, self-closing doors, kept closed, closed windows, screening, properly designed and installed air curtains to control flying insects, or other means. Screen doors shall be self-closing, and screens for windows, doors, skylights, transoms, intake and exhaust air ducts and other openings to the outside shall be tight-fitting and free of breaks. Screening materials shall not be less than sixteen mesh to the inch (16 mesh to 25.4 mm).

The use of electrocuting type traps or adherence type traps for flies shall be designed to have "escape resistant" trays for flying insects, so that dead insects and body fragments cannot fall onto exposed food and equipment. **The device shall not be located over exposed food, clean equipment, utensils, linens, and unwrapped single-service articles.**

IDENTIFICATION OF COMMON PESTS OF STORED GRAIN

The following flow chart provides a useful guide for grain pest identification.



STORED GRAIN INSECTS/PANTRY PESTS

Weevils, moths, and beetles are stored grain pests and create food waste in addition to being a nuisance. Signs of infestation include food spillage, webbing, pinholes, and insects in packages. Their eggs are found in almost all grain products and flour products. These eggs will eventually hatch with enough heat and time.

Dead or trapped birds, insects, rodents, and other pests shall be removed from control devices and the premises at a frequency that prevents the accumulation or attraction of pests and minimizes exposure to decomposing remains.

In West Virginia it is required to use a professional pest control service.

Some tips for controlling pests are:

- ✚ Seal cracks and keep screens and doors closed.
- ✚ Keep foods covered and clean up spilled foods immediately.
- ✚ Dispose of trash and garbage promptly.
- ✚ Close all openings, around wiring, drain pipes, vents, and flues to make them rat and insect proof.
- ✚ Food products, such as flour, sugar, pancake mix, etc., should be removed from their original containers and placed in approved sealed tight containers that are promptly labeled and more impermeable to pests (rodent proof).
- ✚ Garbage and trash are breeding places for diseases, germs, and insects and serve as food for rodents. To avoid this:
 - ✚ Keep garbage and trash in easily washed containers that are tight fitting and prevent flies from entering
 - ✚ Use plastic liners for garbage cans to aid in cleaning the containers.
 - ✚ Wash garbage cans daily with hot, soapy water.
- ✚ Routinely inspect incoming shipments of food, supplies, and premises for bugs to control the spread of pests.
- ✚ Eliminate harboring conditions where pest might nest.
- ✚ Leave work and dining area clean from debris that pests may feed upon.