

# Inspection Tips for Commercial Kitchen Accounts



Commercial kitchens are complex and challenging environments. With their abundance of food, water, humidity and places to hide, commercial kitchens attract a variety of pests, including cockroaches, flies, rodents, ants and stored product pests. These pests create major problems for your customers. In addition to spreading disease, the presence of pests can damage the reputation of a kitchen or restaurant.

This guide provides an overview of pests and tips for conducting thorough inspections in three zones of commercial kitchens: the public area, the kitchen and the perimeter.

BASF offers a broad range of products that provide effective control of pests found in commercial kitchens. Find out more at **pestcontrol.basf.us**. To find the name of the BASF sales representative in your area, visit **pestcontrol.basf.us/rep-finder**.

# **Pest Overview**

# **German Cockroaches**

The most common insect in the commercial kitchen is the German cockroach. These pests are drawn to warmth, humidity, and dark spaces near food and water, so a commercial kitchen provides a perfect habitat. As a result, sanitation is crucial as the first step in cockroach control.

Cockroaches can survive several days without food or water and often live in cracks, crevices and other voids that are easily overlooked. Adult females of German cockroaches can produce from 4 to 8 egg capsules, each containing between 30 to 48 eggs. Depending on the environmental conditions, the eggs can take from 20 to 30 days to hatch, and the nymphs can complete their development between 40 to 125 days. A cockroach infestation can get out of control very quickly. When cockroaches find ideal locations, they leave an aggregation pheromone to attract other roaches, making these aggregation sites ideal locations for bait placement.

Cockroaches usually venture out to forage for food at night. They will eat any food source available, but prefer sugars, proteins and starches, and are usually found around pipes and where water collects (like the sink area in a kitchen). German cockroach droppings and cast-off skins will indicate that adults and nymphs are living nearby.

## Rodents

Rats and mice are major pests in commercial kitchens worldwide. They feed on a variety of foods, consuming food intended for humans and contaminating uneaten food by urinating and defecating on it. In addition, they can cause damage by gnawing on on food items, and can spread disease.





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Commercial kitchens provide the perfect habitat for a variety of troublesome pests, including German cockroaches, and rodents. Rats and mice invade kitchens looking for food and water sources. A thorough inspection of the structure for rodent signs, both indoors and outdoors, is the first step in implementing a successful control program. Signs of infestation include well-defined runways, droppings, tracks in dust, gnawed holes and urine stains. Sanitation, rodent-proofing and rodenticides are the keys to successful rodent control.

#### Ants



Depending on the species, some ants may be drawn indoors searching for food and water sources while others may establish colonies indoors. Locating the trail of ants will usually lead to the source of the colony and the areas where treatments should be applied. Look for easy entry points (door gaps, cracks in walls and gaps around plumbing or electrics) during the inspection of the perimeter. Other key areas to inspect are behind baseboards and sinks, under cabinets and in other voids where ants may build nests. Ant colonies can expand quickly or even relocate, so it is important to locate and control the colony.



Remind the customer that a reduction in freestanding water and good sanitation will reduce the appeal for ants to come indoors. Only a fraction of the ant colony will leave to forage for food — they will then transport solid food back to the colony where it is digested and then fed to the rest of the colony, including the queen(s). While some species will feed on only one type of food, other species will feed on a wide variety of foods, including sugars (sweets), lipids (grease), and proteins (plant and animal).

#### Flies

Although there are more than 100,000 species of flies, the most common species found in commercial kitchens include the house fly, fruit fly and drain fly.

**House Flies** — The life cycle of house flies from egg to adult can be completed in as little as one week and adults usually live 15 to 25 days. The larva is a cream-colored maggot. House flies are only active during the day; at night they will rest in locations such as ceiling corners, rafters, walls, eaves, etc. Adults are attracted to bright lights and prefer to feed and lay their eggs on moist, decaying organic matter. Sanitation and exclusion will assist in controlling fly populations; it is important to remove breeding and feeding sites (including decaying organic matter and garbage). Seal entry points by using screens, door stops, etc.

**Fruit Flies** — Only 3–4 mm long, fruit flies are usually brown/tan in color and may have red eyes. Their larvae develop in moist areas where organic material or standing water is present. Adults can be found around trash cans, drains, fruit, liquor/beer, soda, etc. They reproduce quickly and thus removal of the organic material is essential.

**Drain Flies** — Drain flies are small with short, hairy bodies and wings. Larvae develop in moist materials that accumulate in dirty garbage containers, drains or sinks. They are weak fliers and only travel short distances; adults can be found crawling on walls and other surfaces. Locating and eliminating the breeding source is crucial to controlling this pest.



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The presence of ants, flies and stored product pests like moths, beetles and mites, can quickly ruin the reputation of a commercial kitchen.

#### **Stored Product Pests**

These pests will typically be found in the food storage room of a commercial kitchen and include numerous species of moths, beetles and mites. They feed on all types of dried vegetable and animal matter. Different life stages of these pests infest stored products and cause damage through feeding and fecal contamination. As an example, moths are a sign of an infestation but eliminating them will not resolve the problem since their larvae are causing the damage to the food.

To eliminate an infestation, it is essential to conduct a thorough inspection of all stored food for pests and identify the species prior to developing a control program. Foods that are contaminated should be discarded. In addition, good sanitation and proper storage are critical to prevent the problem from reoccurring.

# **During the Inspection**

Determine what pests are present, where they are located and how they might enter the structure. Use pest monitoring traps and tools, such as flashlights and inspection mirrors, to locate areas of pest activity. Ask what conditions and practices exist that might be conducive to an infestation and find out if there are any conditions that may affect your pest management strategy. To create a specialized treatment plan, obtain information on the construction type, pest(s) pressure, industry requirements, state specific regulations, products label and use directions, and specific situations or needs for that particular account or customer.







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Inspect, prescribe, treat, follow up and communicate are the essential five steps for complete pest management.



# **Perimeter Inspection**

The perimeter of a restaurant or commercial kitchen is the most overlooked part of the facility. It's also commonly infested with ants, cockroaches, flies and rodents, making it one of the main reasons for callbacks. Proper inspection and treatment will prevent pests from entering the interior of the restaurant. Inspect the building perimeter and landscaped areas on a routine basis, paying special attention to the following areas:

**Resource Sites** — Garbage dumpsters and waste receptacles should be kept clean with their lids closed at all times. Keep them as far from the structure as possible. The area around them must be monitored regularly and kept as clean as possible. Outdoor dining areas must be properly maintained and perimeter landscaping should be clear of excess debris and kept from contacting the structure.

Harborage Sites — The underside of dumpsters, the base of docks, sewers and landscaping all provide pest harborages. Windows should be properly sealed, and if they are opened for ventilation, tight-fitting screens should be in place. Proper sanitation and landscape maintenance will reduce the number of potential harborages.

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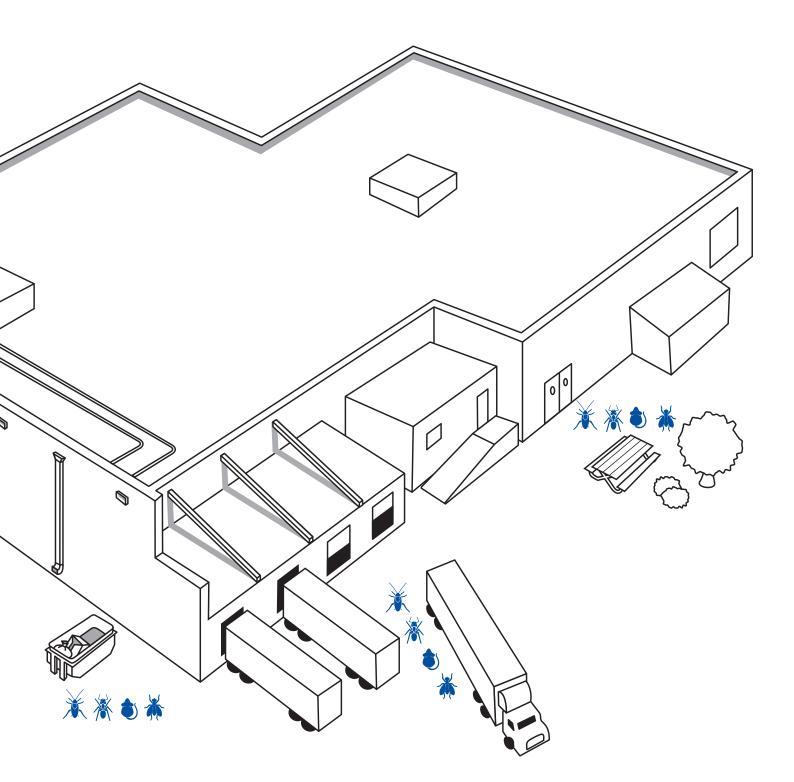
**Interception Sites** — Front and rear pedestrian entryways, windows, ventilation ducts, electrical and plumbing passes all give pests access into the structure. Look for cracks in the sealing/caulking materials used in these areas. Door sweeps and other mechanical controls, such as screened doors and air curtains, will help keep pests out of buildings.





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Proper treatment techniques used in problem areas around the perimeter of a restaurant will prevent pests from entering the interior of the building.





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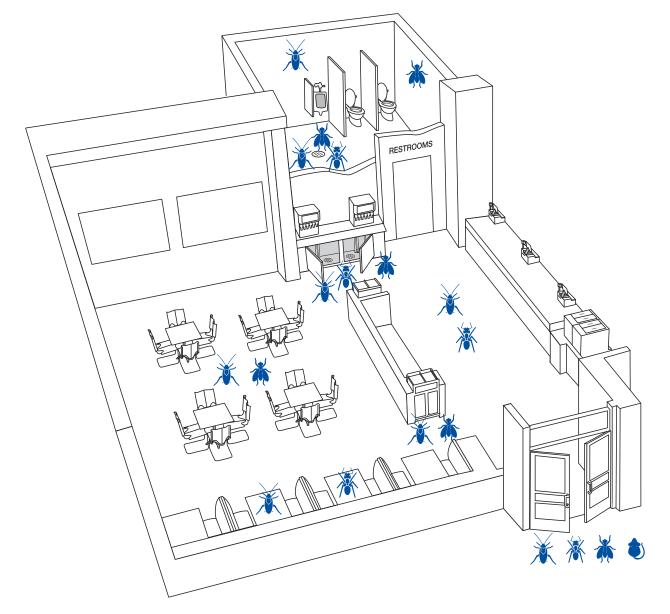
Proper treatment of storage areas is critical in controlling pests.

# **Inspection of Public Areas**

#### **Reception, Bar, Dining Area and Restrooms**

These areas are commonly referred to as "front of house". Since customers will be present in these areas, acceptable pest thresholds are zero. Thorough inspection and sanitation programs are critical. Pay attention to windows sills and light fixtures since insects will be attracted to the lights, Look under tables and booths in sitting areas. Treating cracks, crevices and voids with low to no odor products should complement good sanitation.

**Resource Sites** — Carefully inspect areas around the bar, in the restrooms, and under and around booths, chairs and tables. Look for food/beverage spillage, dirty drains and full or dirty trash receptacles. Be sure to check beverage tanks, lines and dispensers for infestation. These are places with high humidity and plenty of food and breeding sites for flies.



**Harborage Sites**—Pay particular attention below and behind equipment in the bar as well as around and under booths. Inspect inside cabinets in side stations and restrooms; look for clutter or passageways to wall, ceiling or floor voids.

**Interception Sites**—Insects may enter the dining area through windows, doors or the kitchen area. They may also enter on carts, in boxes, or on patrons or employees.

# **Kitchen Inspection**

## Food Preparation, Storage and Dish Washing Areas

Sanitation is typically very challenging in these areas, which are often the source of pest problems. Inspections are key to finding pest harborage areas, entry and exit ways, and sanitation problems that need correcting. Careful evaluation of these areas is crucial both for correct product selection and for helping restaurant management understand how improved sanitation can help control pests. Also consider reevaluating cleaning techniques. Food can be easily pushed into corners and baseboards when using pressurized water while hosing down the floors. Always inspect around plumbing penetrations and check for water leaks. Never miss a floor drain! Inspect them and clean them daily.

## **Prep Tables**

Check behind flashing, under table tops and shelves and in hollow legs and drawers. Look for spilled or dried food where equipment touches the wall, floor or other equipment. Food preparation surfaces should be thoroughly cleaned after use, but never treated with pesticides. When treating above a food prep surface, ensure the surface is covered and thoroughly cleaned after application.

## Dry Storage

Food spillage, excess cardboard and clutter are common in these areas. Product should be stored off the ground and should not be allowed to spoil. Any food substance could become a resource site for pests. Keep open food bags, boxes, containers in closed and sealed bins. Remember many products have storage specific instructions and many require refrigeration after opening.

## Fryer, Grill, Stove and Oven Areas

Inspect these surfaces thoroughly. Grease can build up quickly, creating a layer that easily adheres to adjoining equipment and walls, trapping food in hard-to-reach spaces. The most common infestation sites exist under this equipment, where ideal temperatures are reached and food can easily accumulate. Residual treatments are often not as effective in this area, due to high heat and excessive grease.

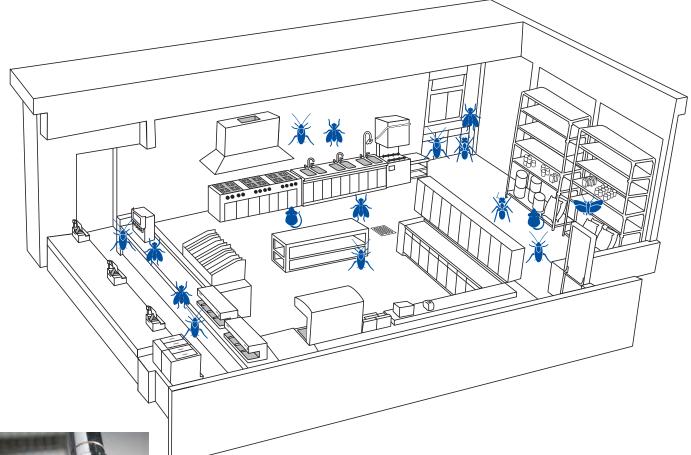
above: Dining, kitchen and storage areas are common pest

harborage sites.











# Plating Station

Inspect inside cabinets and drawers, and look below and behind this area. Large voids often exist here. Condiments are often spilled around salads and appetizers in cold plating stations.

#### **Other Areas**

Don't forget to check areas where used rags, uniform and apron bins are kept since these items attract flies and cockroaches. Also, inspect utility rooms, where floor mops, buckets, vacuum cleaners or floor sweepers are stored.

## **Carts and Racks**

Sanitation is often a problem on slides, frames and wheels. Inspect carefully to prevent distributing pests from one area to another. This includes utility carts used for cleaning.

#### **Floor Drains**

Inspect all drains - under heavy equipment, in the open floor, restrooms, storage areas and walk-in cooler - and check routinely for signs of pests.



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Drains and restaurant equipment such as cart racks can also harbor pests.

## **Pipes/Conduit**

Pipes and conduits provide pathways and harborage areas for pests. Inspect outlets, pipe chases and other pathways around any equipment that uses electricity, gas or water. Check fountain drink or dispenser machines, as they have multiple lines that go directly to the storage areas above ceilings or under flooring.

#### Beverage

Beverage containers should be kept off the floor, if possible, for better sanitation. Inspect hoses for leaks and dispensers for proper sanitation and have them cleaned if necessary.

#### Dishwashing

Inspect motor housing, open pipe chases, detergent dispenser, hollow legs, cracks in tiles and above-ceiling tiles. Look for spilled food and dirty cookware, especially under equipment. Clean regularly. Use filters and screens per manufacturer instructions. Also inspect floor drains and keep them clean and free of debris. Caution: Look for broken glasses that might be on the floor under equipment.

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