



**The Best in Pests™**

**Orkin's Comprehensive Guide to**

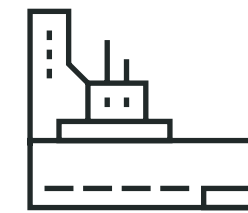
**FLIES & FLY  
CONTROL  
STRATEGY**



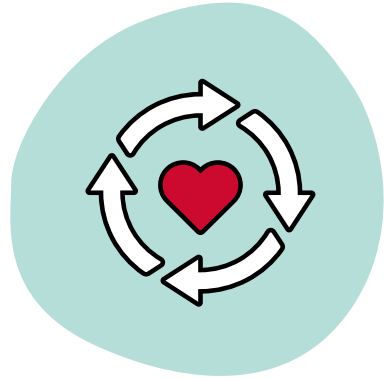
# INTRODUCTION

With more than 18,000 species of flies in North America, chances are good that you have had an unpleasant experience with a few. You know how annoying flies can be when they buzz, dart, land and swarm. But did you know that flies carry germs that can contaminate food or surfaces and cause illness? Unfortunately, these nasty nuisances thrive in food processing plants, manufacturing facilities, hospitals, hotels and offices, creating reputational and safety hazards that simply can't be ignored.

Read on to learn how to prevent and treat these small insects that carry huge implications for your customers, employees and product.

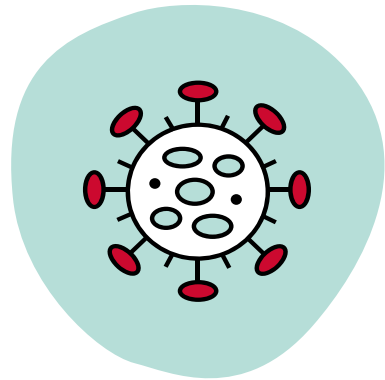


# WHY THEY SHOULDN'T FLY UNDER YOUR RADAR



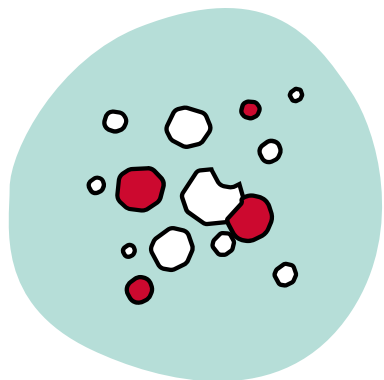
## Speedy breeders:

The female housefly can produce up to 500 eggs in her lifetime. These larvae mature in a week to 10 days. With the right conditions, a house fly population can grow and thrive at a remarkable rate.



## Disease spreaders:

Flies can transmit pathogenic microorganisms—like *E. coli*, *Salmonella* and *Shigella*—that cause fever, abdominal cramps, diarrhea, typhoid and dysentery, along with other ailments.



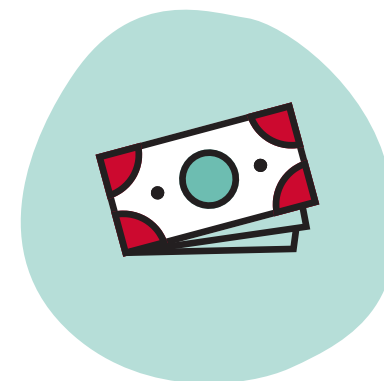
## Contamination agents:

Flies feed on garbage, sewage, dead animals, decaying organic matter and even feces. As they move from surface to surface, they can transfer germs from their food to our food.



## Reputation spoilers:

In a survey of diners, Orkin found that 81% of patrons will never return to a restaurant if they see a pest on their plate of food. And consumers who see a pest are likely to report it—more than half say they wrote a negative online review or social media post about it. That's the kind of buzz you can't afford.



## Costly pests:

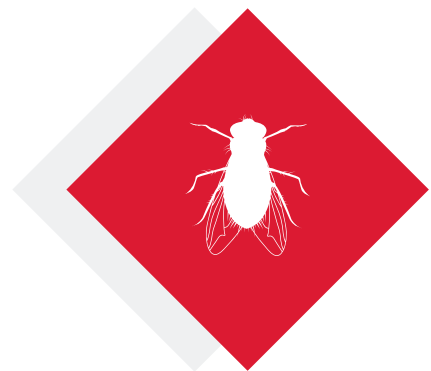
In addition to chasing away patrons, the presence of flies can cost you points during an inspection or audit. Ultimately, these complications affect the bottom line. In fact, a Texas AgriLife Extension reports foodborne illness costs the U.S. between \$5 billion and \$17 billion in medical care and lost productivity every year.

# A GUIDE TO COMMON FLIES

Not all flies are created equal, but they're all equally gross. Here's your guide to some flies that might frequent your place of business.



# HOUSE FLIES



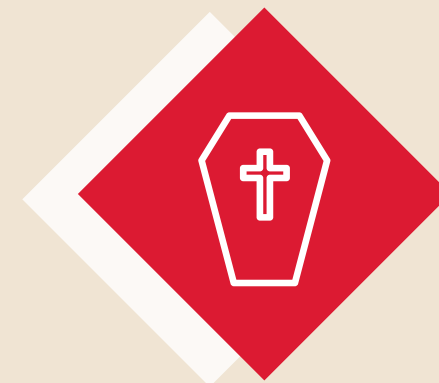
These ash- or grey-colored pests inhabit just about every corner of the globe.



House flies are known to spread more than 100 disease-causing pathogens where we work, eat and live.



These shiny blue or green flies are attracted to the odors of fresh or rotting meat. Because of this, they can unfortunately become pests in both garbage bins and in areas where food is being served.



Blow flies (or bottle flies) are also called “carrion flies” because they breed in dead animals and corpses, depositing their eggs in animal-based food products.

# BLOW FLIES



# FRUIT FLIES AND VINEGAR FLIES



True to their name, fruit flies flock to overripe or decaying fruits and vegetables, or the vinegar byproduct of them, like alcohol. This attraction to moist organic matter means you may find these small, oval-shaped flies circling drains, garbage disposals, trash receptacles and empty bottles, particularly beer and liquor bottles.



With a short lifecycle, from egg to adult in about a week, it doesn't take long for an infestation to start.



Fuzzy drain flies may look like very small moths, but they are very weak flyers. These flies are primarily found in bathrooms where they are breeding in the organic film buildup in floor drains, sinks and rarely used toilets.



Drain flies are also found in other areas that have semi-aquatic environments where decaying organic matter is present such as in septic tanks, sewer inject pits of commercial buildings and pit privies on animal farms.

# DRAIN FLIES



# PHORID FLIES



Rather than fly, these insects often scuttle rapidly across surfaces. Phorid flies feed on raw sewage or rotting meat and can transport disease-causing organisms.



These flies can breed in all sorts of environments that are moist with decaying organic matter and thrive in garbage bins, garbage disposals, leaking sub-slab sewage pipes, septic tanks, mausoleums and even carrion.



Fungus gnats are primarily found in and around common houseplants or potted plants. While less likely to spread disease, these pests have a high annoyance factor, seeking out human eyes, ears and noses when in flight.



As their name indicates, fungus gnats feed on fungus growing in wet soil. Overwatered plants with spongy roots support fungus growth, which offers plenty to eat for these irritating gnats.

# FUNGUS GNAT





## THE BUSINESS OF FLIES: FOOD & NON-FOOD ENVIRONMENTS

Let's break down business environments in two categories to go deeper into the fly threats faced by each one: (1) food handling establishments and (2) non-food handling establishments.



## Food-Handling Establishments

If you're in the business of handling food, you're in the business of fending off flies. Restaurants, cafeterias, grocery stores, food manufacturing/packaging facilities and warehouses all provide ready access to food, water and shelter for flies. They find their way indoors by following food odors from manufactured goods and food waste, temperature gradients in the air and exterior lighting. Once inside, they can cause damage, spread illness and hurt your audit scores or reputation, which ultimately proves costly.

The flies most commonly found in food-handling establishments include the house fly, blow fly, fruit fly, drain fly and phorid fly. In addition to food-handling and storage areas, these flies will be attracted to waste receptacles, drains and equipment with organic buildup on which they can feed.





## Other Commercial Establishments

Just because your facility's main focus isn't food doesn't mean it isn't attractive to flies. Office buildings, healthcare institutions, retail establishments and hotels can also attract flies.

Typically, these types of buildings have many entrances, which means employees and customers are coming in and out regularly, giving flies easy access. Additionally, employees who store meals and snacks at their desks or in their lockers can draw flies. Without a designated pest control partner, flies may go undetected until they become a serious problem.

Like food-handling facilities, non-food handling buildings attract fruit flies and drain flies. Additionally, fungus gnats are commonly spotted in office or retail environments that have indoor plants. The presence of phorid flies in non-food handling areas can indicate a sewer line break below the building or sanitation-related issues with garbage disposal.



# THE APPROACH

Flies don't require much to flourish. That means you must stay vigilant. The right approach to each business environment will depend on the factors that attract flies, like geography, climate and type of facility. Use the acronym **FLIES** to help think through how to structure your fly control program.





# FLIES

## Fly Control Program

Because flies will be a near-constant threat in many environments, managing them requires a strategic fly control program. Work with your pest management provider to determine the areas where flies may gain

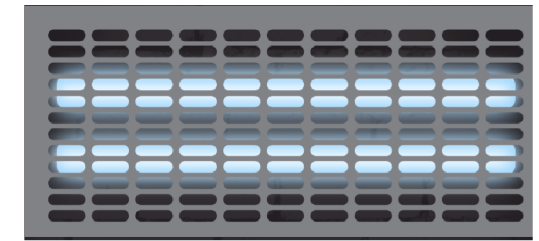
access, what might attract them and what helps them thrive. An effective fly program may include ongoing inspections, exclusion services, stringent sanitation practices and monitoring/control strategies.

# Lights & Mechanical Traps

Monitoring will help you know the scope of your fly problem and learn which fly species are present within the facility. Since some flies are attracted to Ultraviolet (UV) light, you can use wall-mounted Insect Light Traps (ILTs) with either fluorescent or LED UV lights to attract flies and trap them on glue boards placed inside the ILTs. ILTs are best placed near entrances of facilities or in areas that are sensitive to flying insect issues such as food processing areas, food service areas and pharmaceutical manufacturing locations. Once a fly comes inside, the fly light should be the first light the insect sees. Most fly lights require electricity, so you may have to work with an electrician to install an outlet, if needed. Lamps are most effective in the first 30 days, and experts suggest changing fluorescent lights annually, or at three-year intervals for LED lights.

It's important to note that ILTs monitor the efficacy of the overall fly control program. By themselves, they are not a complete control option, but an invaluable part of an integrated system. Additionally, ILTs will not work on all flies. For example, fruit flies are not attracted to UV light. Instead, there are jar traps available that can be used to attract and trap fruit flies.

Fly traps can be used in cafeterias, shipping/receiving areas, refuse collection points and food storage areas, or other areas where ILTs are not appropriate. Flies will fly into the traps but can't fly out.



# Inspection

Inspections help you identify the source of the fly problem. For instance, look for potential breeding and feeding sites, such as garbage collection areas, and watch for signs of fly larvae on food and materials as they are off-loaded from trucks. Generally, fly eggs are too small to notice, so adult fly activity should be noted if spotted on incoming materials. In addition to finding the source, consider how the flies may enter the building, whether because of air flowing in, improperly sealed doors or entrance doors left propped open.

For flies that are attracted to moisture and areas where organic matter can accumulate, inspect floor drains and drain lines for leaks. Small flies, such as phorid flies and fruit flies, may breed under the building slab. Use drain scopes to check for pipe cracks and repair them promptly. In severe situations, the floor and/or the slab below may need to be removed, repaired or replaced.



# Exclusion

If inspections can uncover how flies are getting in, [exclusion methods](#) are aimed at keeping flies out. Seal any cracks or crevices around the exterior of your building that could allow flies to slip into your facility. Install weather stripping around doors and windows, and correctly fit door sweeps to help keep flies out.

If possible, add a second set of sliding doors at entrances, and make sure all doors and windows close tightly. Employ positive airflow (air that flows out of, not into, a building) or air curtains (using high speed fans to create a “wall” of air that flying insects have difficulty crossing) at entrances and exits.

Train employees to keep doors closed during work hours, and monitor open doors at night. This is key, as open spaces or lights around a door can attract flying insects.



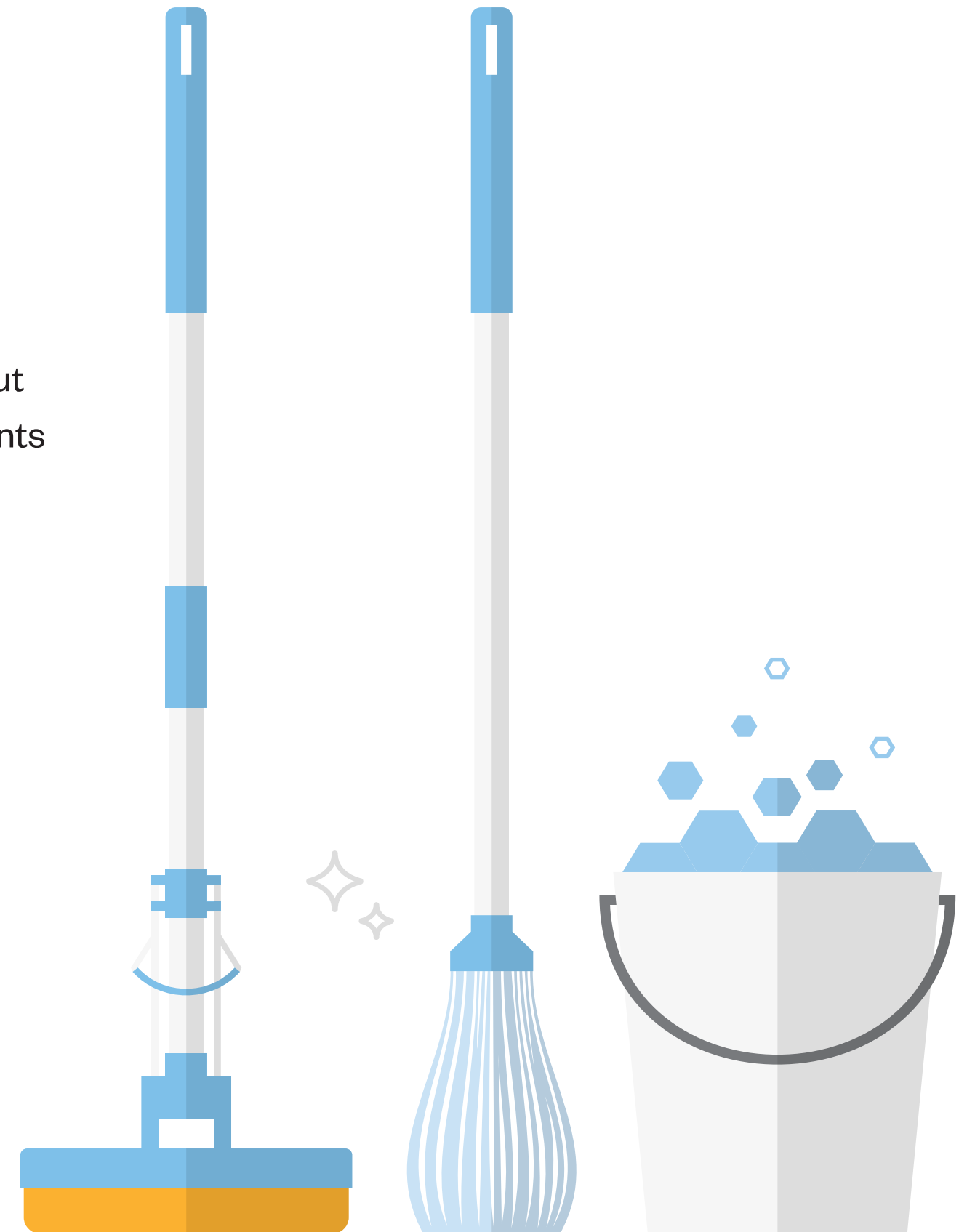
# Sanitation

Flies favor filth, so practice vigilant sanitation to eliminate the conditions they seek. Odor is the first attractant for many fly species. Consider what might be generating smells that signal to flies that food is available: wet garbage, overripe or out-of-date food products, organic matter buildup on kitchen equipment or in drains. To address unpleasant smells, consider [scent services](#), which prevent off-putting odors by neutralizing them and leaving a pleasant smell instead.

When it comes to garbage, our trash is a fly's treasure. Keep tight lids on interior trash receptacles and routinely change the liners. Place exterior dumpsters as far away from the building as possible, and work with your waste management company to routinely clean or rotate the dumpster.

In food-handling establishments, be sure to rotate produce stock frequently to ensure freshness and eliminate moisture, which maggots need to thrive. Use a first-in-first-out approach to reduce the chance that ingredients will become out-of-date. Any damaged food products should be removed from the facility promptly and not left out to decay over time. Make sure drains are checked and cleaned periodically with a [biological drain cleaner](#).

Teamwork and collaborations are very important in resolving sanitation issues. Enlist your employees' help to maintain good sanitation practices and find a pest control partner that you can count on to make sure everyone is on the same page.





# CONCLUSION

Remember, flies are typically a symptom of deeper problems. Experts with the right training and knowledge will create a tailored plan to treat the underlying issues that attract insects, and ease the resulting symptoms. Though pests might try to fly in and disrupt day-to-day work, rest assured that the right tools, partners and strategies will help keep them where they belong: anywhere but your business.

**To explore the best possible plan for your facility, discover the [fly control services](#) that are available in your area, or schedule a [complimentary inspection](#) to learn more about problems and solutions.**

