

Microscopic detailed image of head and eye of a fruit fly. © Tomatito26 | Dreamstime.com

CONTROLLING FLIES: LARGE AND SMALL

By Lisa Lupo

In ideal conditions, such as the warmer than usual temperatures of this summer, large filth flies, including the common house fly, can develop within the space of a week. When that is coupled with the female's ability to lay 100 to 150 eggs in her lifetime, it is critical that food and beverage processing plants take steps to prevent fly invasion and contamination by reducing attractants, eliminating breeding sites, and excluding structural openings through which flies can enter.

Unlike large flies which breed primarily outdoors, small flies breed within the plant, causing additional and different challenges. Additionally, it is critical to correctly identify the species of these tiny flies to enable effective control.

To keep your plant safe from flies—large and small, McCloud Services Technical Director Pat Hottel, and Guardian Pest Solutions Technical Director Hao Yu provide the following tips.

LARGE FLY DOS AND DON'TS.

Flies can be attracted to the food odors from your plant. Areas of special concern from a filth fly standpoint include trash handling areas, exterior employee break areas, and bulk unloading areas. To help protect your plant from large flies, implement these Dos and Don'ts:

Sanitation to reduce attraction/breeding:

- Do keep refuse area as clean as possible

to reduce attraction to pests. Have a regular cleaning schedule and perform supervisory inspections to ensure all areas are being cleaned, including the compactor pad, ledges on the exterior of the dumpster, and the area where the compactor and dumpster units connect.

- Do insist that waste handlers provide clean dumpsters when units are changed; if units are not changed, schedule cleaning of the unit and area at the same time as trash is collected.
- Do install dumpsters on a concrete pad, using sealant when needed to repair cracks to keep organic material from collecting within.
- Do check bulk-product unloading areas regularly for spillage and ...
- Don't allow spills from trucks or railcars to build up. Keep them as clean and free of food spills as possible.

- Don't allow garbage to flow over the top of dumpsters; always ensure the units are large enough for the amount of trash generated, and that garbage is picked up at least twice a week.
- Don't allow employees to drag garbage bags along the ground to the dumpster, as this can leave a trail of grease and organic debris that attracts flies, other insects, and rodents to the building.
- Don't allow employees to leave food scraps and containers in exterior break areas. Keep these areas clean to keep the area from attracting pests.

Exclusion to keep flies out:

- Do install and maintain proper filtering or screening on all vents, and check them regularly to prevent pest entry.
- Do consider the use of air curtains



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on frequently used doors. Quick roll-up doors also can be helpful in limiting the movement of flies from dock areas to more sensitive areas in the plant, such as packaging and processing.

- *Don't* allow doors to be propped or otherwise left open when not in use. Employees should be educated on the pest problems related to open doors. Timers and/or alarms can be helpful in reducing issues with doors being left open.
- *Don't* allow doors or door seals to fall into disrepair. Check them regularly and repair or seal any gaps or cracks.
- *Do* consider using insect light traps indoors to intercept any flies that get past your exterior defenses. Install low to the floor when possible and place where they will not attract flies toward open food. The bulbs of the insect light traps



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should not be visible from the outside as this may attract insects to the building.

Plants may also want to consider supplementing sanitation and exclusion practices with fly control ma-

terials where appropriate. Fly baits can be used in stations or sprayed onto dumpster walls, dumpster lids, and other areas where flies are congregating. Discuss these options with your pest management professional.



SMALL FLY DOS AND DON'TS.

The most common small flies that are found in food and beverage processing plants are the fruit fly, phorid (or "humpbacked") fly, moth/drain fly, and small dung fly. The particular species can be difficult to identify, but because most have very different habits and breeding requirements, identification is important to control.

Phorid flies are attracted to putrid odors; moth flies are attracted to decomposing organic materials and are likely to be coming from the sewer; and small dung flies are likely to be found in clogged drains and sewer systems. If drains are not cleaned regularly, scummy residue will build up and form a "film" that provides food and breeding areas for small flies.

Fruit flies are strongly attracted to fermenting liquid, with potential breeding sites including:

- In cracks of tile floors, behind counters that are constantly wet.
- In material in a partially clogged drain (look for "hidden" drains beneath coolers, under equipment, etc.).
- In a stale mop (a mop that remains damp and unused for several days).
- In fermenting, stale drink bottles, such as in a recycle bin.
- Under wall-to-wall coolers. Look for spillage, floor drains, or food that may have fallen there.
- In unclean trash cans inside, or dumpsters outside, with "juices" in the bottom.
- On rotting or overripe fruits like bananas, tomatoes, apples, etc.,



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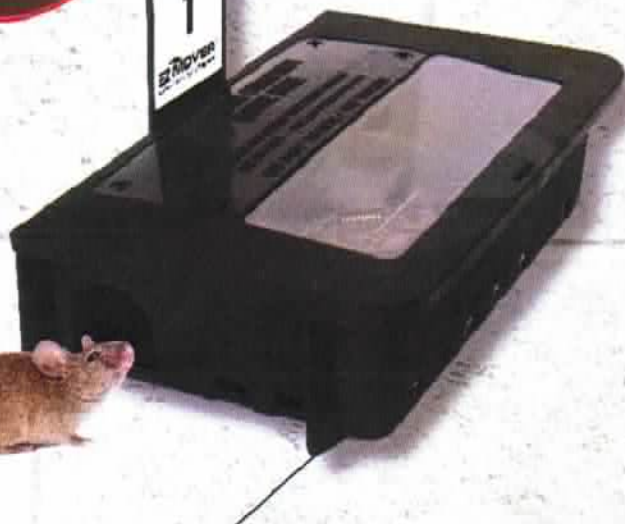
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and vegetables such as potatoes and onions.

- In soil that is contaminated by drain water.

To help protect your plant from small flies:

1. *Do know your facility.* Regularly inspect the whole facility for sanitation issues and structural deficiencies where pests could gain access to the building. When cleaning, incorporate an enzyme-based cleaning agent to dissolve the grease and food debris and keep pipes clean.
2. *Do know your equipment.* If any have a dead end—a trap that is impossible to clean, ensure it is sealed against small flies, which may see it as an ideal breeding spot.
3. *Do know your flies,* or ensure that you consult an expert for a positive identification of the fly.

10 Years of Fly Control from QA

- **Flying Insect Control with ILTs**
April 2012: <http://bit.ly/leSpET>
- **Three Small Flies. One Line Up. No Coincidences.**
August 2011: <http://bit.ly/1b8yJDE>
- **One Fly Is One Fly Too Many**
June 2010: <http://bit.ly/aRz7k1>
- **Protect and Defend: Creating a No-Fly Zone**
August 2009: <http://bit.ly/1aEgOB2>
- **Phorid, Fruit, or Drain: Why Does It Matter?**
August 2008: <http://bit.ly/137ou9x>
- **Small Flies: Five Steps to Prevention and Control**
Aug-08: <http://bit.ly/12Hs36C>
- **Flies and Salmonella: A Bad Combo in Poultry Houses**
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- **Insect Light Traps — a Dual Tool**
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- **The Food Plant: a Fly Magnet**
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- **Top 10 Fly Control Tactics**
February 2007: <http://bit.ly/15bs5qd>

4. *Don't underestimate the situation.* A few flies can turn into many very quickly.
5. *Don't take shortcuts on cleaning.* Have a master cleaning schedule and regular schedule set and stick to it. Sanitation goes a long way.

6. *Don't rely on pesticides.* Pesticides can be a good tool, but this is not the only tool you should have. Prevention is the key. ☞

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