

THE MONITOR

BECAUSE PEST PREVENTION MATTERS TO FOOD SAFETY

SUMMER 2016

TAKING AN OUTSIDE-IN APPROACH TO FLY CONTROL

Research has shown that house flies can harbor more than 100 pathogens, including foodborne illness-causing bacteria, such as Salmonella and E. coli. Their sticky feet and body hairs are ideal for collecting and holding bacteria. Because of this, even a single fly in your plant is a food-safety hazard.

If a fly lands on your food product, it will regurgitate digestive enzymes onto the solid food, then dissolves the food into a fluid allowing the fly to suck it back up. Flies also deposit fecal matter when landing, leaving contamination on the landing site. Additionally, a fly that has been on a dirtied surface – trash, raw meat, etc. – can pick up pathogens and carry them onto a clean, sanitized conveyor belt or ready-to-eat food product.

Thus, flies not only jeopardize your brand, their mere presence is considered an adulterant and can be seen as an indicator of poor sanitation by an FDA or USDA inspector. Their presence alone can subject you to fines or even closure. And, with FSMA's new Preventive Controls rule, GMPs - which include pest control as a sanitary operation - are now considered to be regulation, not simply "nonbinding recommendations" of guidance.

The Comprehensive Program

Implementing a comprehensive program utilizing an outside-in approach can greatly improve your efforts to prevent flies from entering your facility by helping to reduce pressure on the exterior and eliminate flies on the interior.

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REAL RESULTS

Outside-In Approach Reduces Large Flies by More Than 80%

A large cereal company that manufactures and packages a variety of grain-based products in rural Pennsylvania had been using insect light traps inside its facility to try to control large flies. However, not only does that area of the state have heavy spring, summer and fall fly pressure, but the plant's waste feed area also attracts a high number of large flies. This creates a particular problem because the female flies will lay their eggs in the waste feed as the fermenting grains provide all the food, water and shelter needed for larval development.

81%
Reduction
in Large Flies

Although the cereal company did not have flies in the production area, management was concerned about the potential of flies adulterating the product. Not only might the flies transfer bacteria from the waste feed area to food or food-contact surfaces, they could transfer pathogens such as Salmonella and E. coli from other exterior areas as well.

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TAKING AN OUTSIDE-IN APPROACH TO FLY CONTROL

CONTINUED FROM COVER >>>

The outside-in process is based on a partnership with your pest service provider. It is suggested to have a proactive three-step approach to:

Minimize entry opportunities. Structural issues, such as gaps, holes, or open doors, can enable fly entry, and sanitation problems can invite them right into your plant. Managing sanitation around the plant will greatly reduce fly pressure and the risk of entry. Dumpsters and compactors should be washed weekly, as well as the pads they are stationed on to reduce fly feeding and breeding.

Reduce fly pressure. The treatment of exterior surfaces and use of fly stations in areas where flies like to congregate (such as near dumpster corrals, garbage areas and exterior employee break areas) will help to reduce flies and lower the chances of them finding a way into your plant.

Eliminate activity. Treatment of common interior resting sites (where permitted) and the installation of insect light traps can go a long way toward eliminating flies that find a way into your plant despite your efforts.



REAL RESULTS - LARGE FLY CASE STUDY

CONTINUED FROM COVER >>>

To protect its food, its customers, and its brand, the cereal plant converted to Ecolab's Expanded Large Fly Program, which implements the outside-in approach:

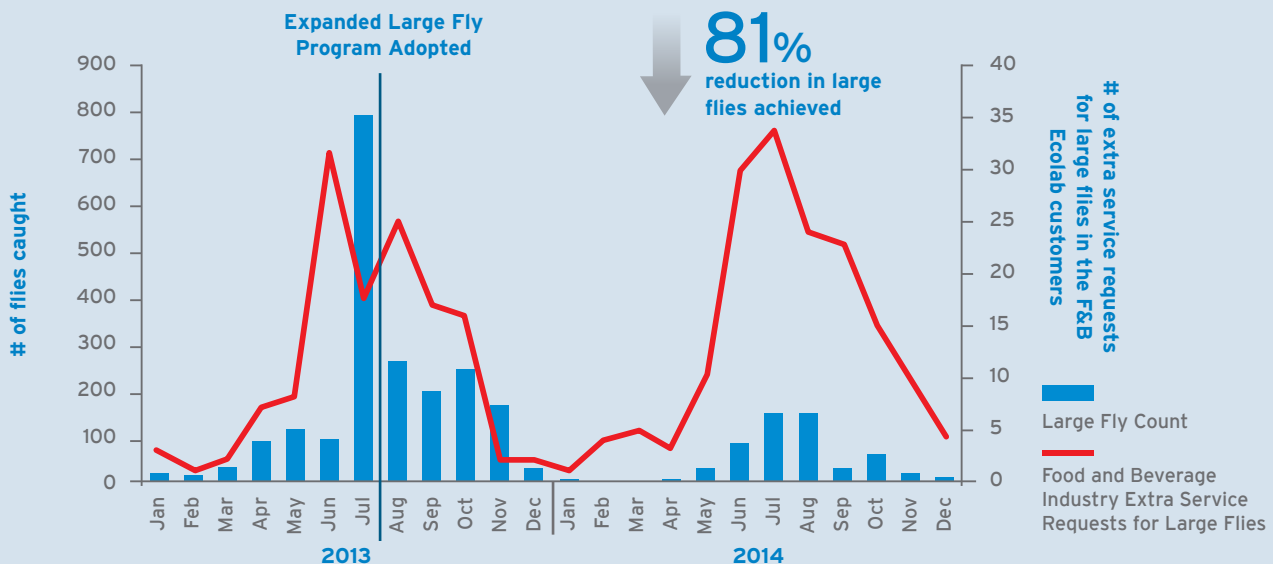
In key exterior locations near the waste feed area, STEALTH™ Fly Stations were installed to attract the large flies before they entered the facility.

On the interior, STEALTH™ Maximas were installed to capture any flies that got through the first line of defense.

Additionally, the plant operators and Ecolab partnered on identifying areas to improve sanitation practices making the environment less attractive to large flies.

As a result: In the fly season that followed the implementation of the outside-in approach, the number of flies entering the plant was reduced by approximately 81% over the previous year – even with comparable fly pressure during both years.

To read full case study, go to: Ecolab.com/largefly



PEST OF THE QUARTER

WHAT CAN YOU DO ABOUT FLIES?

There are specific preventive practices you can implement at your facility to help to reduce fly populations and keep flies out of your facility.

As for any pest, good sanitation is not just a “good manufacturing practice,” it is critical in minimizing the conditions that enable flies to live and breed in and around your food plant. While you may have known this common fact, you may not have realized that good sanitation also needs to extend to the exterior, to reduce the conditions that attract flies to your plant in the first place.

Following are some practical steps you can apply in and around your facility today:

Exterior Sanitation

- Keep garbage as far from entry doors as possible, and clean the area regularly.
- Ensure all garbage bins and dumpsters have lids that are kept closed and are well-sealed.
- Periodically walk the property to pick up discarded food containers, spilled foods, and other garbage.
- Maintain exterior dining areas, reminding employees to clean up after themselves and not leave food or trash behind.
- Remove standing water, weeds, tall grass, and other excessive vegetation to reduce breeding and harborage areas.
- Remove all clutter and items stored on the ground near the building.

Eliminate Entry Points

- Keep windows and doors closed as much as possible, or use double-door vestibules, air doors, door sweeps, self-closing doors, or plastic-strip doors where needed.
- Install 20-mesh screens and ensure they are properly fitted and in good repair;
- Inspect and seal exterior entry points of utility wires and plumbing; screen vents.
- Check positive/negative air pressure of entry ways. Negative interior pressure can pull flying insects into the facility. HVAC system adjustments can often correct this.

Interior Sanitation

- Clean food debris thoroughly and regularly.
- Keep floors cleaned/mopped so as to not allow standing water or accumulated condensation. (This includes areas around drains.)
- Limit interior access to product areas by keeping doors closed wherever possible.

As these recommendations indicate, the application of general GMPs throughout your plant will go a long way toward eliminating flies and the conditions that attract them.

COMMON LARGE FLIES



HOUSE FLY

The most common fly species, it breeds outdoors in decaying organic material and manure, and can harbor over 100 different pathogens.



BLOW/BOTTLE FLY

Distinguished by its metallic appearance, this fly breeds outdoors in decaying vegetation and carrion, and feeds on sewage and feces – from which it can transfer disease.



FLESH FLY

This fly doesn't lay eggs, rather the female gives birth to larvae, which develop in decaying flesh and spoiling meat.



CLUSTER FLY

Cluster flies are not considered filth flies. These flies “cluster” in walls, voids and attics, entering structures from outside in the fall to overwinter, and from structural overwintering sites in the spring.

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Did You Know...

- Flies are most attracted by darker colors. In fact, according to University of Florida research, flies are repelled by the color yellow, making it a bad choice for fly traps.
- Flies will hatch from eggs within a day, then the larvae (maggots) develop into adults in a week or two depending on conditions - living in and feeding on garbage, compost, organic or animal waste, and unsanitary or poorly drained areas around the plant.
- Flies will typically travel close to a mile (with some flying up to 2 miles). So your food facility may attract flies from afar, even when there are plenty of other food sources along the way.

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PEST MANAGEMENT PARTNERSHIP FOR FSMA COMPLIANCE

With the inclusion of pest control as a FSMA mandate (See cover story), FDA has increased the importance of pest control and the need for a plant/service provider partnership. Although a good portion of the industry contracts out its pest management services, adherence to the FSMA rules is ultimately the responsibility of plant management. It is for this reason that a solid plant/provider partnership is more critical than ever.

With the September compliance date quickly closing in, the food plant must work together with the pest control service provider to solve pest issues and resolve conditions that could contribute to future pest activity.

Partnership is more critical than ever.

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Take these steps:

1. Reach out to your pest management provider to review your program and ensure it is complete, preventive and documented.
2. Develop an action plan with the pest control service provider. Periodically review the plan for needed updates, improved procedures, and reporting and documentation needed to demonstrate compliance.
3. Follow the pest control service provider's recommendations on sanitation, structural and processing practices to help prevent pest related issues.

