

BUILDING GREEN

A Green Bill of Health

Diagnosing the environmental sensitivity and sustainability of pest management practices

By Patrick T. Copp, MS, BCE

Today, green is more than the color of spring. It's the color patients expect to see applied to every aspect of facility operations. From energy efficiency and water conservation to reducing medical waste, healthcare facilities are under increasing pressure to take more responsibility for their environmental impact and ensure that sustainable practices are in place.

Pest management practices should be on the list of operational activities undergoing "spring greening." Through an Integrated Pest Management (IPM) approach, pest management providers are focusing more and more on proactive, preventive measures and using targeted low-impact chemical treatments only as a last resort. This approach is essential in sensitive healthcare environments. IPM addresses the elements that make facilities attractive to pests—readily available sources of food, water, and shelter—and works to reduce pests' access. A key component of a green program is thorough documentation, which allows the pest management provider to track trends and proactively take preventive measures. In an ongoing process of assessment, implementation, and monitoring, a good IPM program will continually

evaluate pest hot spots, allow for adjustments to the program, and monitor the results of these modifications. This process must be sustained to ensure effectiveness.

Experts are exercising their green thumbs by using the biology and behavior of pests to develop innovative and environmentally friendly pest management solutions. Combined with a robust preventive strategy, you can control pests' access to the essentials and use your instincts against theirs.

Fly lights

The preparation and storage of food and the trash produced in facilities can provide an open invitation to flies. Since these insects slough off dangerous bacteria every time they land, eliminating and monitoring for flying insect activity is a critical part of an IPM program. Before the symptoms can lead to a chronic problem, install fly lights inside all entrances to help combat flying pests. Fly lights use ultraviolet light to attract and draw pests to a non-toxic sticky board inside a confined trap unit.

Fly lights are best placed inside near entrances to shipping/receiving, food preparation, and waste disposal areas. Not only will fly lights trap the pests before they reach the more sensitive parts of the facility, but the devices also serve as an effective

pest-monitoring tool. Have the pest management professional check the trap catch on a weekly basis. For best results, replace the light bulbs quarterly and the sticky boards weekly or as needed.

Sticky boards

In food service and storage areas, nontoxic sticky boards can help detect the warning signs of a potential pest infestation by trapping crawling pests. Place sticky boards behind and under equipment in food preparation and storage areas, break rooms, and utility closets to help monitor for pest activity in the facility. Like fly lights, sticky boards can be

part of IPM diagnostics. Work with the pest management professional to log any pest sightings from the sticky boards to identify the pests caught and make modifications to the IPM program as needed.

Pheromone traps and insect growth regulators

An effective way to prevent pests from entering sensitive areas in the facility is to outsmart them with their own biology. Pheromone traps contain synthetically made versions of chemicals that insects secrete to communicate with one another. The pheromone draws pests



Figure 1. Fly lights attract flying insects and trap them on a pheromone-enriched sticky board. Used at facility entrances where flies might be attracted, such as food preparation areas, fly lights can also help you monitor the pest population.

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toward a sticky board and offers an easy way to track insect populations, particularly stored-product pests. Insect growth regulators (IGRs), or lab-created versions of insect hormones, hinder pest growth and prevent reproduction, keeping pest populations from expanding. IGRs and pheromones are nontoxic to humans and are designed for use in locations where food is stored or prepared.

Repellents and desiccants

Pests tend to hide and breed in hard-to-reach cracks and crevices in exterior walls, but you can combat them with small amounts of a repellent dust. Insects are deterred upon contact with the repellent, which contains pyrethrins, (compounds extracted from pyrethrum flowers), and silica gel, an inorganic compound that damages insects' exoskeletons through a process called desiccation. Applications of repellents in cracks and crevices at the edge of exterior walls followed by the use of a sealant will eliminate these popular pest hideouts and help prevent future infestations.

Nonvolatile baits

If implemented by a licensed pest management professional, nonvolatile baits can serve as an effective substitute for traditional treatments. Nonvolatile bait gels and pucks are odorless, so staff and patients won't be

concerned by chemical smells. They also do not proliferate through the air and won't affect the indoor air quality. These targeted bait treatments help eliminate entire pest populations because once an insect consumes the bait, it will carry it back to a harborage area where the rest of the pest population can be affected.

Organic cleaners

Organic green cleaners that consist of naturally occurring bacteria and enzymes can be used in many sensitive locations and serve as a great pest prevention measure. Organic cleaners can eliminate grime buildup, residual food debris, and mildew found in popular pest hot spots including those present around drains, sinks, and waste disposal areas.

Exclusion

Another way to prevent pests from getting into the facility is to take a look at the outside. Have maintenance seal any holes or exposed utility penetrations in the building with weather-



Figure 2. Non-toxic bait pucks lure in pests but do not proliferate through the air.



Figure 3. The places where utility services penetrate the façade of the building provide a perfect entrance for pests. Be sure to inspect the exterior of your facility with a pest management provider and your onsite maintenance team to identify locations that need sealing or repairs to prevent pests from slipping inside.

resistant sealant. Cockroaches can enter through a 1/16 inch opening and mice only need a gap the size of a dime.

Installing a half-meter gravel strip around the building can deter both rodents and crawling insects. Rodents do not like to be out in the open so this will provide a “no-cover” zone. Also, the gravel creates a rough terrain for insects to traverse.

Keep shrubs and other landscape plants at least two feet away from the building as they can provide food and harborage for termites and crawling insects. Branches that touch the side of the building or hang over a rooftop can create a bridge for pests, enabling them to crawl over any barriers you've created. Avoid planting fruit-bearing trees as these attract flies, yellow jackets, and birds.

Remember, staff members play a crucial role in a green pest management program. Teach employees the importance of environmentally friendly prevention and treatment methods

so they can support efforts to develop a sustainable program. In addition, special attention should be paid to areas of the facility undergoing renovations or new construction. These often represent places where pest prevention practices are disregarded, but work zones can provide pests the perfect opportunity to enter the facility unnoticed. Work with the pest management provider to develop a strategy for areas that are under construction.

Before you put pest management in the less-than-green category, work with your pest management provider to implement a green program that is effective, environmentally responsible and sustainable for the future. **HBI**

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