

BY DR. ANIL MENON

Food Plant Pest Management

QUALITY ASSURANCE PROFESSIONALS HAVE OPTIONS WHEN IT COMES TO SOLVING THEIR TOUGHEST PEST PROBLEMS.

In any facility where food is processed or stored, proper pest management is a vital part of operating a safe, clean and regulatory-compliant business. If there is food, there is a risk of infestation, and food handling plant personnel need to be aware of their options for pest prevention and treatment.

Threats to food safety exist both indoors and outdoors and it is essential for quality assurance managers to be familiar with their sites' pest "hot spots": areas where conditions conducive to infestation are commonly found. While specific hot spots can vary from facility to facility, there are general areas of any structure that require special attention to ensure a pest-free environment.

The most common outdoor hot spots develop around sealing and air handling areas, waste management systems and open doors. If the facility is poorly sealed or the air system is not properly managed, pests will find it very easy to enter and set up shop. Management is encouraged to seal the gaps around entry points for pipes, ducts or cables and repair any cracks or crevices in the building's walls and foundation. These can provide entry points for ants and other outdoor pests such as ground beetles, crickets, millipedes, etc. Inadequate waste management systems are especially important, as they are often overlooked. Any food debris that is left behind will accumulate and become the perfect food source for disease-carrying pests. Lastly, the easiest mistake an employee can make is to leave a facility door open even for short periods of time. This is literally inviting pests to come in!

Within the facility, quality assurance



Scientific advancements are delivering new products to supplement any IPM program.

professionals should focus on sanitation, inspection of incoming shipments, and pest monitoring protocols. The facility's equipment should not only be clean, but sanitized. It is a common misconception that clean means sanitized. To clean is simply to remove dirt or debris, whereas sanitizing actually removes surface bacteria and microorganisms. A clean and sanitary environment is not enough to protect inventory against pest infestation. Insects can still enter in shipments from other facilities. All incoming packages should be inspected prior to being allowed in the building. Most importantly, inadequate pest monitoring protocols allow minor pest problems to grow out of control. Facilities should have detailed rules and schedules for monitoring and managing pest infestations. Whether pest management is handled internally or through an outside company, all employees should be knowledgeable of the protocols and practices.

CONTROL OPTIONS. Even the most rigorous inspection and maintenance protocols are sometimes not enough to keep the bugs at bay. Scientific advancements in professional pest management are delivering new products to the marketplace that can be used to supplement any integrated pest management program. Versatility is key in this area because all pest issues are different. To develop the most effective treatment program for a specific site, facility management teams and contracted pest professionals can choose from bait systems, undetectable liquids, aerosol products, or dust applications.

Bait systems are often used to treat for cockroach and ant infestations and can be positioned deep inside cracks, crevices and wall voids. Roaches ingest the bait then return to their hiding places and die. There is also secondary kill when other roaches take up the bait by feeding on the dying insects or their excretions. Because baits have been a standard method of cockroach control for many years, roaches are showing resistance to formulations of some bait products. In order to fight this physiological and behavioral aversion, pest control professionals suggest rotating the use of bait systems with liquid treatments every few months.

Undetectable liquids are the newest technology available to help in the fight against pests. These insecticides can be applied as crack, crevice or spot treatments inside and outside of the food processing facility. The treatment is undetectable to the insects, so pests unknowingly contact or ingest the active ingredient and return to their colonies to share the ingredient with other pests. As with baits, additional pests may be eradicated without having to come into direct contact with the product. To be most effective there is a need

UNDETECTABLE ANT & ROACH CONTROL

While there are many options for treating food handling facilities, the advanced technology of undetectable liquid treatments is making an impact on pest professionals and integrated pest management programs. The versatility of these products is a true benefit for quality assurance professionals in the food industry.



PHANTOM®

Labeled by the Environmental Protection Agency (EPA) in 2005 for use in food handling applications, Phantom® termiticide-insecticide from BASF offers an effective method for controlling ants and cockroaches. Phantom's active ingredient, chlorfenapyr, makes it completely undetectable, meaning pests can't taste it, smell it, or avoid it. Once ingested, Phantom attacks pests by preventing their cells from generating energy. This leads to

paralysis, and ultimately, death. However, the process is not immediate. Unlike faster acting products, Phantom will not cause an accumulation of dead ants and cockroaches in a particular spot. This may signal to other pests to avoid that area, which in turn undermines the success of the treatment, according to the manufacturer.

Benefits of the product include its low-residue formulation, its low human hazard, long residual and the ability to target applications to vulnerable cracks and crevices, drains and selected spots.

For best results, Phantom should be applied by a pest professional following a comprehensive inspection of the facility's susceptible areas.

To learn more about Phantom, please visit www.pestcontrolfacts.com.

to use dedicated application equipment for non-repellent products. This avoids cross contamination of repellent and non-repellent products.

Aerosol insecticides are easy to use and provide quick knockdown when the product comes in direct contact with the pest. Residual control is poor with most aerosols, although some products do provide residual activity. Dust applications work best when applied to cracks, crevices or wall voids because the insecticide can easily penetrate cavernous spaces. In addition, because some dusts are waterproof, they are great for treating sewer drains and other damp areas.

Thorough inspections, regular maintenance and proper sanitation of pest control "hot spots" should be standard practice for all quality assurance team members. Combined with a comprehensive knowledge of professional pest management treatment options, these skills and protocols will ensure that facility management will be prepared to effectively treat and prevent future pest problems. **QA**

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