

FOOD Manufacturing®

Technology for Today's Food Production & Packaging Market

Guard the Green

Protect Your Organic Food Products with Environmentally Friendly Pest Management

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According to the National Organic Program, U.S. organic food sales enjoyed 17 to 20 percent growth over the past few years. Whether it is to support our nation's ever-growing "green movement" or simply to incorporate more nutrients into their diets,

increasing numbers of Americans are realizing the benefits of "going organic." Unfortunately, traditional pest management methods are not compatible with this trend. The challenge to organic food processors is to find ways to maintain their facilities and keep pests out with techniques that do not jeopardize USDA organic standards.

Thanks to new technologies, food

processors can now implement more environmentally friendly pest management methods to eliminate pest problems effectively without compromising

program that stresses non-chemical techniques, green pest management methods are highly effective at keeping pests and the germs they carry

According to a recent study, the U.S. has approximately 3.95 million acres of certified organic surface area.

-The International Federation of Organic Agriculture Movements, the Research Institute for Organic Agriculture and the Foundation for Ecology and Farming



the organic nature of their products. In contrast to conventional methods, these techniques prevent pest infestations by employing techniques dependent on knowledge of pest behavior. When employed as part of an Integrated Pest Management (IPM)

out of food products.

Talk to your pest management professional about reviewing your IPM program and implementing some of the following organic-friendly techniques in your food manufacturing facility:

According to the USDA:

- Organic food is produced by farmers who emphasize the use of renewable resources and the conservation of soil and water to enhance environmental quality for future generations.
- Organic meat, poultry, eggs and dairy products come from animals that are given no antibiotics or growth hormones.
- Organic food is produced without using most conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation.
- Before a product can be labeled "organic," a Government-approved certifier must inspect the farm where the food is grown to make sure the farmer is following all the rules necessary to meet USDA organic standards.



➤ **Make sure your pest management professional is well versed in pest biology and behavior and knows the USDA's requirements for the production, processing and storage of organic food products.**

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>Pheromone traps are an effective tool for enticing pests into a sticky trap.

Fly lights

Since many food processing plants run around the clock, they always offer a beacon of light and food sources to flying pests. To combat flies before they turn into a full-fledged infestation, install fly lights inside all entrances, especially near entrances to shipping, receiving and waste management areas. Fly lights use ultraviolet light to attract and draw pests to a non-toxic sticky board inside a confined trap unit.

Sticky boards

Sticky boards are only one kind of trap, but they consistently prove to be one of the most effective ways to monitor for crawling pests like cockroaches. You can use these monitors as reliable barometers of your plant's pest activity and spot early warning signs of a growing infestation by regularly checking sticky traps placed in potential pest harborage areas and runways. An added benefit of sticky traps is that they may capture enough pests to help control small populations.

Pheromone traps

With the help of modern science, pest management professionals have added insect pheromones (chemical attractants) to their IPM arsenal. Most often used to control stored-product pests like Indian meal moths,



pheromone traps mimic real insect pheromones to draw in the pest. Like regular sticky traps, most pheromone traps track pest activity versus controlling the pest population. Some food processors use pheromone traps in a grid formation to help isolate the source of pest activity in warehouses and other large areas. Once the source is located, the infested inventory can be removed before it contaminates adjacent goods.

IGR's

Insect Growth Regulators (IGR's) use synthetic replications of insect hormones to prevent pests from reaching full maturity. Considered "safe" for pest management in most of the food industry, IGR's pose little or no threat to other organisms as they only affect targeted pests. However, these products may not be suitable for use in areas where organic food materials are present. A pest management professional should be consulted to make sure that any materials used are consistent with the USDA's "National List of Allowed and Prohibited Substances." You can also

obtain approval from your organic certifying agency prior to treatment.

Repellants/Dessicants

Small amounts of repellent dust help keep pests from hiding in hard-to-reach cracks and crevices in and around your facility. Commonly used to treat ants, repellants include a combination of silica gel and pyrethrins to damage insects' exoskeletons. Exposure to this combination leads pests to immediately retreat and causes their bodies to dry out through desiccation. After application in small openings in the exterior of your building, consider caulking the area to reduce the pests' hiding spots and the chance of future infestations.

Organic cleaners

Organic cleaners use the same biotechnology used to clean up ocean oil tanker spills and offer an environmentally friendly alternative to chemical sanitizers. Organic cleaners can be used on all floors and with a brush in drains. They help prevent fly problems in and around drains, sinks and waste disposals by using "good" bacteria to remove grimy buildup and "bad" bacteria in drains and other fruit-fly breeding areas.

Insect bait

Unlike conventional spray pesticides, non-volatile baits use chemical formulations that do not become airborne, thus enabling targeted application via gels or bait pucks. Insect pests will consume the bait and take it back to the nest, so baits help eliminate not only the wayward pest, but whole colonies as well. It is best to work with your pest management professional to make sure that all baiting follows federal strictures.

As you consider each of these treatments, remember that they all require specific pest identification to be most effective. Your pest management professional should be well versed in pest biology and behavior so that you can work together to target individual pests of concern. A pest professional

should also know the USDA's requirements for the production, processing and storage of organic food products.

In addition to professional support, remember that all pest management efforts depend on the cooperation of staff members. Some reputable pest management professionals offer free training sessions to equip employees with the tools and knowledge they need to monitor and report pest activity. A strong IPM program and the right combination of green management methods can keep your food processing facility safe from both pests and chemicals that have no place around organic foods.

Why do food manufacturing plants attract pests?

- With large amounts of raw product entering food plants on a monthly, weekly and daily basis, the environment offers pests a constant food source and easy entry on shipments.
- The sprawling size of the average food processing plant provides plentiful nooks and crannies where pests can set up a comfortable new home.
- With multiple entries and heavy traffic, pests can access food facilities in a variety of ways, including shipping and receiving docks and storage rooms.
- Plants emit light and odors, both of which draw pests looking for a meal and a comfortable habitat. Readily available water supplies and an abundance of raw food materials and residues add to the appeal.
- Plant equipment can provide pests with hiding places as well as a method of transport, while a variety of maintenance and production issues can make management difficult.

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