



by *Melissa Vaccaro, MS, CHO*

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Be a Pest About Pest Management

There is no one-size-fits-all approach to pest management in food facilities. Different types of facilities will need to utilize different methods to control pests.



In all cases, both federal and state laws will dictate who, what, where, and when any kind of chemical pest control can occur. To effectively manage pests an operator/manager must understand these laws (to some degree), know the facility strengths and weaknesses in controlling pests, recognize common pests of various types from bugs to rodents, and communicate effectively as a team to ultimately have a pest-free facility.

Always check your state and federal laws before applying pesticides or rodenticides in any specialized facility or public building.

Continued on page 12

Continued from previous page



COCKROACHES



MICE AND RATS



FLIES



STORED PRODUCT

INSPECTION

Both the pest control technician and management should thoroughly inspect all areas of the facility. Two sets of eyes are better than one! Note any areas with current pest problems or signs of past problems. Look in, around and under equipment, and in unexpected areas of the facility. Identify conditions that are or may be contributing to pest problems. Evaluate housekeeping, sanitation, and facility maintenance practices which may contribute to pest infestations. Sanitation is the most important pest control technique in a food handling establishment. Talk with staff about what they might be seeing. Nothing is more effective than a good thorough facility inspection—both inside and outside. Following are a few areas to consider when inspecting. This is certainly not an all inclusive list, but it highlights several key areas.

Exterior

- Uncontrolled weeds, plants, or grass
- Broken or idle equipment (junk piles)
- Holes in the building structure
- Exterior doors that will not close tightly
- Dumpsters
- Recycling Containers

Interior

- Cracks and seals in floor, walls, and ceilings
- Floor drains
- Stairwells/elevator shafts
- Areas where plumbing comes through walls
- Door closures
- Lighting fixtures
- Any moist areas of the facility
- Locker rooms and employee areas
- Recycling areas
- Cardboard box storage
- Dry storage area, under and behind shelving

PEST IDENTIFICATION

Only by correctly identifying pests can their habits and biology be known and used to eliminate them. This is critical in having an effective pest control program. A good technician will be able to help you identify and eliminate pests.

Common Pests

- **Cockroaches**— The pest that will survive even a nuclear event! Known to transmit disease and bacteria, the cockroach can be an elusive creature. Use insect traps to determine which species of cockroach you are dealing with. Knowing the species can help you determine its common breeding ground. Some roaches enjoy a large pile of cardboard boxes, and some would rather hang out in moist floor drains. Place monitoring traps (usually in the form of sticky boards) throughout your facility. Keep track of which traps are catching the roaches, and this may lead you to the source of the infestation or breeding grounds as well.
- **Mice and rats**— Both members of the rodent family, they can damage food containers, contaminate food, and consume food. The most common mouse is the house mouse. The two most common rats are the Norway rat and the roof rat. Most are nocturnal and not often seen during working hours due to the commotion in the facility. They can produce upwards of 35 offspring annually. A visual inspection is the key to control. Determine where they are nesting so you can focus your controls in those areas. Signs of infestation could include: droppings; visual sightings; scratching or gnawing sounds in walls or in equipment; gnawing of any chewable item or surface including walls, ceilings and food packaging; burrows for rats or clusters of nesting material which could consist of anything the rodent finds cozy; or runs (a common path the rodent takes and is evident by a dirty, greasy looking smudge on wall and floor areas). Remove harborage area. Eliminate junk, weeds, and debris. Remove their food source, water supply, and harborage areas and you can control rodents.
- **Flies (especially fruit flies)**— Watch for fruit flies around produce. They are very small, usually found in clusters, and reproduce very quickly. They are those pesky little bugs you see when you disturb rotten fruit. For any kind of fly, you need to remove the breeding ground—areas with moisture and food. Once you identify where your breeding ground might be, you can work with your pest technician to eradicate them. Once they are removed, keep them from coming



INSECTS



BIRDS

back in with tight closing doors, screens, air curtains, and other effective means. Remove garbage, spoiled produce, and puddles of water.

- **Stored product insects**—Indian meal moth is probably the most commonly talked about storage pest, but many more are out there. You may hear these called “pantry pests.” Pantry pests are moths, beetles, mites, weevils, and psocids. Most dry stored human and pet foods are susceptible. These pests will eat and contaminate food products. Hundreds of these pests can live and reproduce in bags or boxes of food, especially food that has been lying around undisturbed. You may find small holes in packaging, webbing or empty pupa cases throughout the food, all indicators that you have a storage pest problem. A good clean up of any infested foods and the food storage areas should control your problem, but with some larger infestations mild insecticides may need to be applied by a technician.
- **Birds**— You might be thinking *birds? A bird will not get in my facility.* But it can be easier than you think. A curious bird may sneak in the garage door or back door when a delivery is being made. Although more common in warehouse settings due to the nature of the business, other facility types can get birds. Keeping bird nests and roosting sites to a minimum on the outside of the facility will aid in controlling birds on the inside.

PROGRAM APPLICATION

Utilize an Integrated Pest Management (IPM) approach when at all possible. This program is a whole facility approach and emphasizes non-chemical methods of pest control such as exclusion, trapping, sanitation, monitoring, and maintenance before even considering the use of chemicals. IPM is a preferred method of pest control in sensitive environments such as schools and hospitals. Pest control in these areas must protect both the health and safety of the children/staff and minimize any potential damage to structures, equipment, and personal property. Lots of information is circulating on IPM. If your food facility is not familiar with this concept, read up! It may be a better program for you.

Answers to FPC Review Questions

CDMs who answer the FPC Review Questions on page 15 of this issue can check their responses against the answer key found on page 39. This “self check” allows you to confirm your understanding of the test questions.

Chemical control may ultimately be needed; however, low impact measures such as insect growth cycle regulators and baits (if allowed by law) should be considered first. Low impact measures will help avoid contamination of food, food contact surfaces, non-food contact surfaces, packaging, and similar while maximizing pest control efforts. FDA, USDA and EPA, along with many states, all have very detailed and specific rules on who can apply certain chemicals, what chemicals can be applied in a foodservice setting, restricted uses, and when and how they are to be applied and used. The FDA Food Code only requires that you control pests and/or the facility be free of pests. It does not dictate how to control the pest, nor does it require a professional pest company be used. I warn you, however, applying chemicals yourself could get you in a great deal of trouble with your regulatory agency or even make someone ill. A reputable pest company will be very knowledgeable on the subject. Most chemical applications will need to be applied by a certified pest control operator. If you insist on applying a low impact chemical yourself, read the product label carefully! Most products, even Raid and similar household pesticides, have restrictions on when and how they can be applied and used in a food facility.

PROGRAM EVALUATION AND QUALITY ASSURANCE

No program would be successful without an evaluation step. Is what you are currently doing working? Pest activity within a food facility is not stagnant; it is always changing in response to various factors, such as seasonal trends or building maintenance issues. Management should regularly evaluate the facility, the pest control company, and methods of control that are currently in use. Are they all working together to keep pest activity out of your facility?

COMMUNICATION

Management must communicate with their pest control operator and their staff. If your pest control technician comes into your facility, does a walk through, does some crack and crevice spraying, and leaves an invoice on your desk, then they are not the company you should be using. As an inspector, this is probably the biggest problem we see with pest control. The Person-In-Charge (PIC) of the facility has no idea what ‘that pest person’ in their facility is doing when they come through once a month to do pest control monitoring. A good sanitar-

Continued on page 14

ian will first ask the PIC, not the technician, who the person is and what monitoring or treatment is currently being used. The PIC should know the answer to the question, but unfortunately often does not.

A trained and motivated technician is needed. If used, a pest control company should be very interactive with you. The PIC should be informed of all measures, especially any chemical applications, which are being used. If you are saying to yourself by now, 'wow, I have no idea what that guy does when he comes in here,' then you need to re-think the company you are using. A good pest control company will pro-actively involve management.

Even if the pest control technician is an employee of the school district, hospital, or business (in-house pest control), they need to communicate with the food safety management team. You need to get to know them. Interject yourself in their business when they are in 'your territory,' food storage and food production areas. Management must also discuss with their staff any

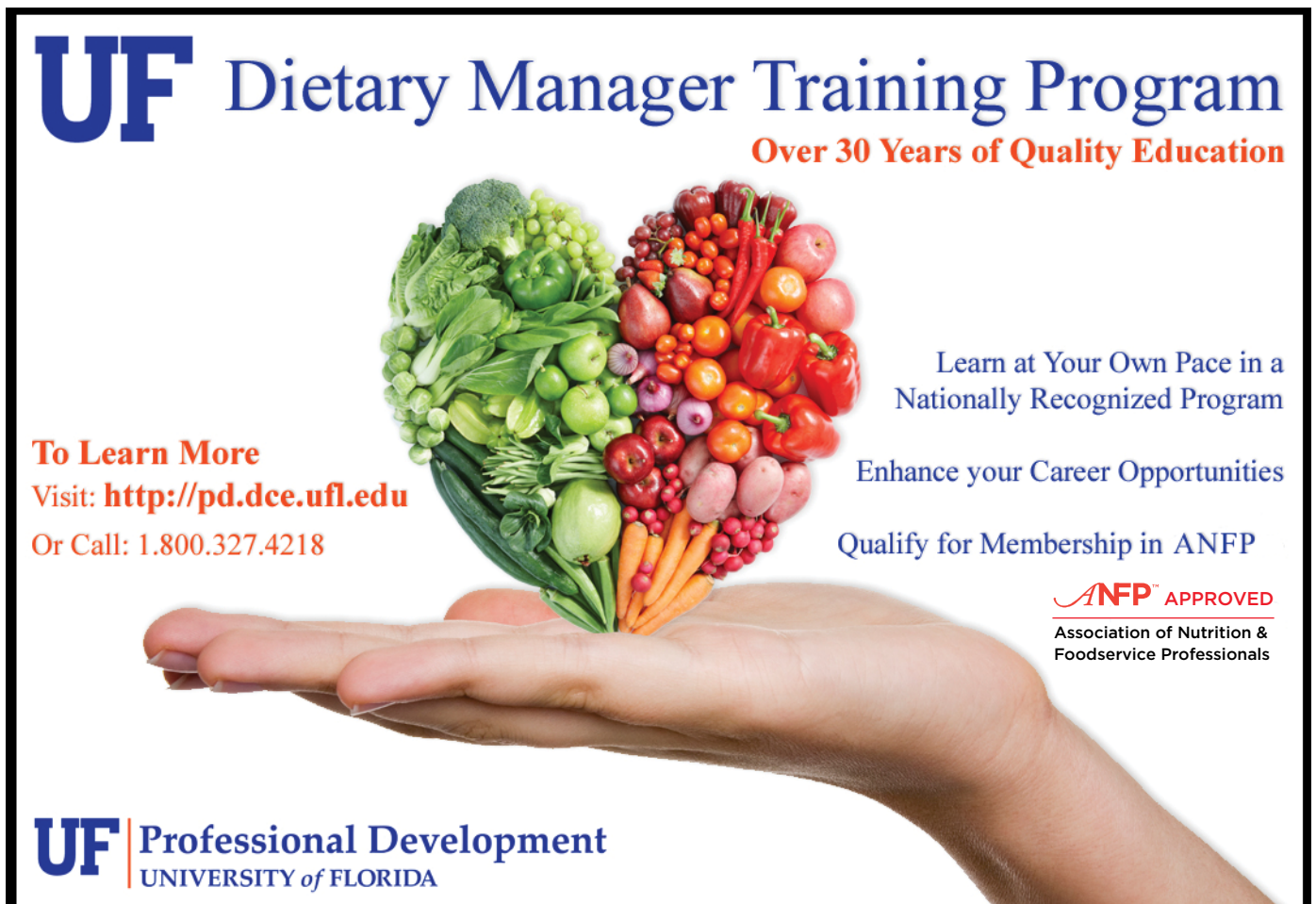
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sightings or signs of pest infestations they may be seeing. They are the eyes and ears of your facility. You will be amazed what they have noticed in their work areas.

More times than not, if you have the mentality that 'it is their job to take care of,' you will end up burned at some point or another. If the inspector shows up to do a routine food inspection and finds a pest problem or misuse of a chemical, it is not the pest control company or maintenance person that will have violations on their inspection report or fines issued; it will be the licensed food facility. The PIC will be written up for not doing their job by controlling pests within the facility.

Communication and cooperation between staff, administrators, management, and your professional pest control technician will determine the success of any pest management program. My best advice to any PIC, foodservice director, manager, or similar is to be involved, be an integral part of the program—and be a pest about pest control in your facility. 🍷



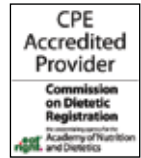
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Reading *Be a Pest About Pest Management* in this magazine and successfully completing these review questions has been approved for 1 hour of continuing education credit for CDM, CFPPs. The article and questions are also online at www.ANFPonline.org/CE/food_protection.shtml.

Please Mark Your Answer

- The most important pest control technique in any food handling facility is
 - A. Use of insecticides
 - B. Sanitation
 - C. Baiting
- Rodent harborage can be controlled outside by eliminating
 - A. Uncontrolled weeds, plants, and grass
 - B. Getting rid of all outside decorations
 - C. Placing lights on the exterior of the building
- In attempting to eliminate a pest, it will be critical that you
 - A. Close your facility in order to exterminate
 - B. Properly identify the exact pest species in your facility
 - C. Use a chemical treatment to get rid of all pests
- Effective and successful pest control management must include:
 - A. Spraying the cracks and crevices of the facility to control insects
 - B. Keeping a cat in the warehouse to control the mice
 - C. Communication and cooperation between management, administration, staff, and pest control technician
- Before applying pesticides or rodenticides in a food facility
 - A. Check federal and state laws
 - B. Apply for your food license
 - C. Have your Person-in-Charge become a certified pest control technician

- IPM is
 - A. Integrated Pesticides and Materials
 - B. Industrial Pest Management
 - C. Integrated Pest Management
- IPM emphasizes
 - A. Non-chemical methods of pest management as a first choice for control
 - B. Having only one person involved in pest control
 - C. The use of live animal traps

Must Complete:

Please describe what you learned from this article:

What changes will you make at your facility after reading this article?

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