

The Green Alternative to Pest Management

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Integrated pest management is the future of pest management. What is it and why should you be interested? Integrated pest management, known as IPM, is a common-sense approach to the rational goal of any pest-management program. That goal, simply stated, is the prevention of unwelcome members of the animal and insect kingdoms from causing unacceptable damage or creating unacceptable irritation levels that can reduce the value of an enterprise's real estate assets. The difference between IPM and the current routine approach is that the IPM program is predicated upon using effective and environmentally sensitive practices, as opposed to the ubiquitous application of persistent man-made chemicals known as pesticides by the "baseboard bandits." Those are the guys you see on campus with the backpacks and the spray nozzles.

IPM can be practiced at both the commercial-institutional and residential levels. Recognition that, through the judicious use of nonchemical methods, pest populations can be reduced or eliminated is critical. Through IPM, the adverse effects of these

pests can be minimized or eliminated without causing harm to the health and welfare of humans and all the other organisms in the environment.

Critical to understanding what IPM is all about is the notion that regular inspections and surveying to establish and analyze pest populations are foundational. In a contractual sense, you pay to deal with your inventory of pests – not for the gallons of pesticide applied to your buildings or grounds. The surveying-and-inspections cycle is a learning process and likely to demonstrate to the decision-makers involved that there is more than "one best way" to address the mix of pests and the problems they evidently cause in the particular building involved.

Securing the approval to initiate an IPM program will not be easy. The conventional wisdom is strong. The conventional wisdom says that if we see a pest, we kill it immediately and that we never ask, "What was the active ingredient that killed the pest, and could it harm me, my family, or others?" Changed minds are required before changed behavior can take place.

Why is IPM important? The environmentally sensitive approach to pest treatment is important because we don't really know

what the current practices of multiple chemicals are in the human body. There is little sense in continuing the indiscriminate application of the unknown, and there is little sense in creating health hazards for people, property, and the environment. Although we have little direct evidence, we do have definitive studies where, in three different parts of the U.S., mother's breast milk contained the same 369 persistent man-made chemicals, the bulk of which were pesticides. So IPM possesses the potential to remove humans from undesired exposure to persistent man-made chemicals and removes from the equation the unknown health consequences of that exposure. IPM affords an opportunity to achieve the same or similar result – the control of pests without the creation of risk.

IPM is not a new tactic. There is a great deal of science behind the industry. Many states now mandate IPM as the practice of choice in public schools. And many facilities that house the aged and the immune-compromised use it to reduce risk. Like all things in the green movement, a great deal of education is required to get people to move from doing what they have always done. There are success stories. One institu-



tion with about three million square feet of facilities made the change from the base-board bandit mindset to an integrated pest management system. The results are impressive. The institution stopped the application of 6,000 gallons of pesticides, and it does not have a pest problem. No one at that institution now wants to have those 6,000 gallons of pesticide applied ever again.

Integrated pest management makes use of mechanical, biological, physical, and educational tools to deal with the challenges presented by our insect and animal friends. On rare occasions, it may make use of some chemicals to deliver the desired results. For most practitioners, the use of chemicals is an absolute last resort. Examples of mechanical controls include snap traps, animal traps, and vacuums. Biological controls include sexual attractants, hormones, and growth regulators. Physical controls might include caulking, screening, and ingress and egress blockages. Finally, educational controls might include workshops, Websites, pamphlets, and dialog. This is a very important aspect of any program and one that will always be present.

Pests have needs, and this makes them vulnerable. Pests will seek out habitats that provide favorable air, food, moisture, and shelter. If you can prevent the pests from having any one of these desirable elements, you can probably control the population. Nobody, not even a pest, hangs around in an inhospitable environment. It also is the case that you may control populations of pests by simply blocking access to buildings. Knowing what makes your building attractive to pests and how they get in is what makes the site survey an important first step.

There are essentially six steps to a successful program.

1. Site survey
2. Identification of the pests
3. An effective record-keeping system
4. Measurement of the threshold for action
5. Integration of the methods of treatment
6. Evaluation of the results

The first step is to determine what the pest is in need of to survive in the environment they are in. Once you know this, you have begun the process of control without the blanket application of chemicals. This is true because you can alter or eliminate the

pest by removing the required elements.

The second step is the identification of the pests themselves. Not an easy task with this approach. We have to know more about the species to be able to plan the control mechanisms. It is much harder to figure out control mechanisms than it is to get a can a spray and to kill the pest, whatever it is.

The third step is to establish a pest-monitoring and record-keeping system, and to record this data on a regular basis. Right – you need a pest database. If you know what pest is where and in what concentration, you have an opportunity to address the population before it becomes a problem. This step is critical because it sets in place the basis for decision-making about your actions.

The fourth step is to determine the “choke factor.” You need to know just how many pests, in what locations, you are willing to live with before you enact a tactic to address the issue. This step is critical in the process because it asks you to accept the fact that not every pest must be eliminated at first sight, and acknowledges that pests are a part of the biosphere and that they play a role in the cycle of life. There is a trigger level in each situation where economic or aesthetic damage is no longer an acceptable alternative and that determines when you exercise control by initiating a biologically sound program. The decision should be data-driven, not emotion-driven, and really means that you are in control but that you

make some decisions before you launch a program that you don't understand.

The fifth step in the establishment of a program is the integration of the various treatment methods to provide the safest and most effective strategy to achieve a level of pest control that is acceptable to the campus. You don't have to do this yourself. Surprisingly, most pest-control companies are moving in this direction. They know that pesticides are not likely to be around for a long time, and this tactic is the wave of the future. Most large cities have a trade organization that can help, and most states have a pest-control licensing division that also can help. Additionally, the EPA has funded extensive work on integrated pest management for the last 15 years and has a wealth of information available on their Web site.

The sixth step is to evaluate your results. IPM is not fail-safe. It requires ongoing work, understanding, observation, and flexibility. The only way to be successful is to invest the necessary time. Never forget that, with this approach, you are paying for knowledge – not for gallons of pesticides. People do things to facilitate the presence of the pests they then seek to eliminate. But they can learn to alter their behavior – and they want to learn. No one really wants all of those chemicals, so give it a try. Be flexible and adapt. Remember – you, too, can do great things! And reducing the amount of pesticides is one of them.

Welcome to the green movement.



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