

## IPM Principles Apply Indoors as Well as Outdoors

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Integrated pest management is typically associated with treating pest problems which occur in landscape settings or agricultural fields.

How many of you have ever thought of employing IPM when treating indoor pest problems?

In most cases, when an indoor pest problem arises, people want the quickest solution; however, in the long run, a "quick fix" may not be the most ap-

propriate. Just as in outdoor settings, indoor settings can also benefit from well-planned IPM programs which are proactive in nature.

The same principles which apply to outdoor IPM are also applicable to indoor IPM. Remember the six IPM "How To" steps: gather information and as-

sess your situation; establish monitoring procedures; establish injury levels and develop economic thresholds; determine corrective actions; establish a good record-keeping system, and finally, evaluate your program's effectiveness.

It makes good sense to use IPM in indoor settings where humans and pets live, work and play. The goals of a good IPM program stress:

- 1) the importance of minimizing the risks to human health and the environment:
- 2) providing effective control of a pest complex by including alternative pest management strategies which are

least toxic to non-target organisms;

- 3) ease in carrying out a pest management program safely and effectively;
- 4) maintaining cost effectiveness both in the short and long term; and
  - 5) appropriateness to the site.

When implementing a pest management program in buildings it is important to consider not only the pest but the environment in which the pest is found.

What factors are contributing to the pest's ability to survive and propagate? Where is the pest located, i.e., throughout the building or just locally in a specific area?

In order to manage the pest, you must be aware of its habits and location. The more information you collect, the better able you will be to make

ries: education, habitat modification, physical controls and chemical controls.

- •Education: Often indoor pest problems can be drastically reduced or eliminated by education. If people understand what causes a pest problem, they may be better able to avoid behaviors which can lead to pest problems. For example, people may not realize that by leaving food and drinks out and not cleaning up spilled foods, they are creating the perfect environment for pests.
- Habitat modification: It is important to keep things clean. Sanitation goes a long way in eliminating pest populations. Eliminating sources of water and food for potential pests is very important. Storage of items in the

proper containers, off the floors, and in dry spaces can aid in preventing problems.

• Physical controls, including vacuuming, caulking cracks, placing traps and removing pests by hand play an important role too. Choosing least-toxic chemical controls such as dessicating dusts and insect growth regulators can also

contribute to your IPM program.

• When chemical control is necessary, consider the safety of the pesticide for humans, pets and the overall environment. Try to use a chemical which is species specific and always follow label directions.

Keep in mind that the aim of an IPM program is to manage pests over long time periods. You want to implement a program which will be viable now with continued efficacy into the future.

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informed pest management decisions. Often by simply monitoring the pest, you will be able to determine its location and then, using one or more of several treatment options, control the pest so that it is below your accepted aesthetic, economic and/or safety threshold.

Remember, when treating any pest you must be aware of its life cycle so that you treat the pest during its susceptible life stage. Treatment of dormant stages will prove unsuccessful and a waste of time and money.

Broadly speaking, what are the treatment options for in door pests? I will touch briefly on four general catego-