



Integrated Pest Management (IPM), An Overview

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Integrated Pest Management (IPM) is a common-sense approach to pest management. The term IPM was introduced in the late 1960's. The concept was developed as a reaction to the limitations and problems associated with chemicals. Examples: the accumulation of DDT in the food chain; pest resistance; pollinator losses; human health risks; and potential water, air and soil pollution.

The goal of IPM is to manage pests and diseases at acceptable levels—not eliminate them. IPM is not a strictly organic approach to pest management. Chemicals and pesticides are sometimes necessary. Broad-spectrum residual insecticides should be avoided.

IPM knowledge and understanding will enable you to determine when to reach and when not to reach for that chemical or pesticide. Your landscape is part of the larger community ecosystem and should be managed responsibly. Too often, as gardeners we assume that our plant problems are caused by pests and diseases that require the use of chemicals. Many plant problems are caused by cultural and environmental factors. Most of the pests and diseases encountered in home landscapes can be managed successfully without chemicals.

How does IPM work? Jane Doe walks into her garden and finds that something is bugging Plant XYZ. Her first reaction is to grab that can of Ridz-It and spray away. Then she comes to her senses and thinks that there is a better way. IPM to the rescue. First she identifies the host plant and determines what type of damage is present. Jane then checks to see if the damage is from an insect or an organism. Some signs of insect infestation are frass, wax, cast skins, tents, sooty mold, etc. Checking further she then determines if the damage is significant enough to require treatment or even worth treating. Treatment decisions depend on the type of plant that has a problem. If a plant is easy to replace, such as an annual, pull it out and replace. Always select the least toxic solution first, such as physical (hand removal, prune out damage). Use pesticides selectively (spot treatment). Many of the least toxic products are known as bio-rational pesticides because they are less likely to harm beneficial organisms and degrade quickly. Some examples are B.t. (*Bacillus thuringiensis*), baking soda, insecticidal soap and horticultural oil. Horticultural oil has been used for both insect and disease management.

The University of Maryland, Master Gardener Handbook, Chapter 9, written by Jon Traunfeld and David Clement, Ph.D., lists these six IPM steps.

1. Know your backyard environment
2. Prevent plant problems
3. Monitor plants regularly
4. Diagnose accurately
5. Take action if necessary
6. Evaluate and continue to monitor

Master Gardeners play critical roles in educating the public and helping residents and communities solve plant and pest problems. Take that sample to a local plant clinic. Your local County Extension Office is only a phone call or visit away. If you have a question about lawn, garden, or pest problem, The Home and Garden Information Center answers gardening and pest questions via phone and Internet. Phone: 1-800-342-2507, Internet: www.hgic.umd.edu

For more information about horticulture or the Master Gardener Program in Frederick County, call the Frederick County Office of the University of Maryland Extension, (301) 600-1596, or visit <http://www.frederick.umd.edu/>. Our mission is to educate Maryland residents about safe, effective and sustainable horticultural practices that build healthy gardens, landscapes and communities.

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