

Indian River County  
1028 20th Place, Suite D, Vero Beach, Florida 32960  
(772) 770-5030 Fax: (772) 770-5148 <http://indian.ifas.ufl.edu>

## **Controlling Pests through Integrated Pest Management**

By: Janet Bargar, Water Quality Agent

Integrated pest management (IPM) may sound like a complicated phrase, but it is a common sense and environmentally sensitive approach to maintaining a landscape by managing landscape pests through biological, cultural, and chemical control methods. This multi-tactic approach uses a series of pest management methods instead of one control method. By giving you more choices on how to control pests, IPM works to minimize environmental, economic, and healthy effects.

One choice is to let the good guys help control the bad guys. Predators control pests in their native habitat, but problems occur when pests are introduced into new areas that do not contain their natural enemies. It's like having an all you can eat buffet at a restaurant that never closes. Biological control is using natural enemies to reduce pest populations (both native and introduced) to acceptable levels. An example is lady beetles feeding on aphids. If an introduced pest does not have a natural control, research is conducted to find a natural enemy that will control the pest and not harm the surrounding habitat. When an acceptable predator has been found, it is released into the area where the pest has become established. In order to maximize biological control, insect identification is necessary because you don't want to harm beneficial insect populations that are helping to control the pests. A lot of resources are available to aid you in identification, such as Internet sites, books, and University of Florida Master Gardeners at your local county extension service.

Another component of IPM is cultural control and relies on using proper landscape practices that don't make your lawn attractive to pests. One way is not to over fertilize. Rapid plant growth is a signal to insects that there is a plentiful food source and increases the chance of infestation. In order to prevent your lawn from coming under siege, apply minimum amounts of slow release fertilizer that is recommended for your grass type. Also, irrigate two times a week from March to October and apply one-half to three-fourths of water each time. This water level will help your grass become drought tolerant, reduce rapid growth, and make it less attractive to pests. Another cultural practice in the IPM toolbox is to mow the grass properly. Only mow often enough to remove one-third of the leaf blade. This practice along with proper fertilization and irrigation will help prevent thatch, which is a great place for chinch bugs and lawn caterpillars to live.

The final tool of IPM is chemical control, which is considered the last resort. If heavy pesticide use occurs, pest resistance can occur to pesticides that once controlled them and beneficial insect populations will decrease. By using the various control methods in IPM, this potential problem can be reduced. If you find that applying a pesticide is necessary after trying other control techniques, natural alternatives that are less toxic to the environment than conventional pesticides are available. These include insecticidal soaps, horticultural oils, microbials, mineral and botanical insecticides

("botanicals"). Although these pesticides have a lower toxicity level, they should be handled with caution and always read the label before applying.

I encourage you to make IPM part of your landscape maintenance plan. It gives you more choices when dealing with pest problems through the use of biological, cultural, and pesticide control techniques. For more information about IPM, contact the Indian River County Extension Service.