

## Integrated Pest Management

The goal of Integrated Pest Management (IPM) is to control pests in the most environmentally friendly, cost effective, and efficient method possible. IPM can be used in agricultural and non-agricultural settings including homes, gardens, or workplaces.

When using IPM pesticides are used in a limited capacity in conjunction with biological practices to control the pests. Biological practices include using pheromones, trapping devices, and natural predators. One of the most important steps to IPM is to identify if control of the pests (weeds, insects, etc.) is necessary, since not all pests are damaging.

### Before using pesticides around the house:

- Remove food, water, and shelter sources used by the pest.
- Remove pet food and water over night.
- Caulk cracks and crevices around cabinets or baseboards.
- Fix leaky plumbing.

### Before using pesticides in the garden:

- Remove all breeding sites (standing water, etc.) outdoors.
- Plant species that are resistant to pest invasion and disease.
- Be sure the garden has good drainage.
- Try to rotate your crop locations every year. Pests that survive the winter will be less likely to invade if the crops are in a different location.
- Mulch the garden with leaves, hay, grass clippings, or shredded bark. DO NOT use newspaper, since it could contain toxic metals including lead and mercury.



*For tips on controlling invasive species visit: IPM  
<http://www.uky.edu/Ag/Horticulture/landipm/ipm/intro.htm>*

## Where To Get Help for IPM information

- Maryland Cooperative Extension Cecil County Office; 410-996-5280;  
<http://cecil.umd.edu>
- Integrated Pest Management in Schools;  
<http://www.epa.gov/pesticides/ipm/index.htm>
- EPA, Pesticides Fact Sheets; <http://www.epa.gov/pesticides/factsheets/index.htm>
- A Citizen's Guide to Pest Control and Pesticide Safety;  
[http://www.epa.gov/oppfead1/Publications/Cit\\_Guide/citguide.pdf](http://www.epa.gov/oppfead1/Publications/Cit_Guide/citguide.pdf)

## Invasive Plants

Weeds are generally defined as any plants growing where they were not planted. However, some weeds are so persistent, destructive, and difficult to eradicate that they have received the designation of being noxious. Maryland has a noxious weed law that requires landowners to control Canada Thistle, Johnsongrass, Shattercane, and Bull Thistle, Plumeless Thistle, Musk Thistle on private property. Both the seed and the root system of these weeds must be managed for effective control by mowing, cultivating, or treating with approved herbicide. For information on the identification or control of these plants, contact University of Maryland Cooperative Extension, Maryland Department of Agriculture, or Cecil County Weed Control.

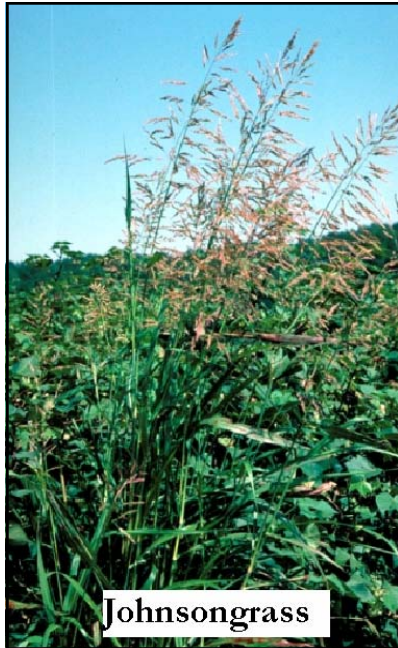
Other plants that are widely recognized to out-compete native plants and quickly take over natural areas, but have not been designated as noxious weeds are considered invasive plants. Non-native plants come from other countries or habitats and are introduced into new landscapes, where they quickly replace native species. Invasive plants are often spread by windborne seeds or by birds and other animals. These plants can overrun nearby wetlands, meadows, or forests, crowding out native plants that provide important habitat for birds and other wildlife.

Many common invasive plants are used in landscaping. Before you purchase a plant, be sure it is not a listed invasive plant. Some of these plants include Phragmites, Purple Loosestrife, Miscanthus, Winged Euonymus, Bradford or Callery Pear, English Ivy, Vinca, Periwinkle, and Japanese Stilt Grass. Assistance is available for the removal of many invasive species. For more information call Cecil County Weed Control, 410-287-4638.

## Invasive Plants



## Noxious Weeds



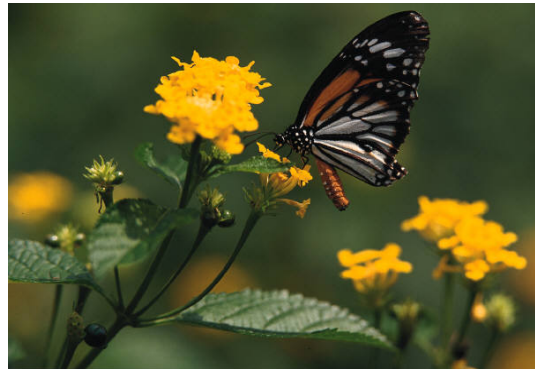
*Image Credit: Global Invasive Species Database*  
<http://www.issg.org/database/welcome>

### Where To Get Help for weed and invasive plant control information

- Maryland Cooperative Extension Home and Garden Information Center Phone Hotline; 1-800-342-2507; <http://www.hgic.umd.edu>
- Cecil County Weed Control; 410-287-4638; [http://www.ccgov.org/dept\\_works/roadsdiv.cfm](http://www.ccgov.org/dept_works/roadsdiv.cfm)
- National Invasive Species Information Center; <http://www.invasivespeciesinfo.gov/plants/databases.shtml>
- Maryland Noxious Weed Identification; <http://www.mda.state.md.us/pdf/weedbro.pdf>
- Maryland Invasive Species Council; <http://www.mdinvasivesp.org/index.html>
- Center for Invasive Plant Management; <http://www.weedcenter.org>

## Inviting Wildlife to Your Backyard

Even a suburban backyard can attract a surprising number of creatures including birds, butterflies and beneficial insects. Trees, shrubs, and other plants provide both food and shelter for wildlife. The types of plants used for food and cover help determine the wildlife species that will be drawn to your backyard.



There may be some wildlife you don't want to attract to your backyard such as deer. Deer populations are the largest in history and are adapting to areas heavily populated by humans. Although they are exciting to see, they can easily strip your shrubs and trees and cause other environmental damage as well. When you purchase nursery stock, check with your salesperson to make sure that the species you are interested in are not "deer candy."

Putting up birdhouses and bird feeders can invite an array of colorful birds as regular visitors. However, bird feeders, besides attracting the species you want, may also attract species you don't want, such as English Sparrows, Starlings, Grackles, Crows and squirrels. Choose a location for birdhouses that birds will find appealing and secure, usually away from areas of frequent human activity.



This birdhouse is located at the CSCD constructed wetland at North East Middle School. Birdhouses like this one can be installed in your backyard to attract your favorite bird species.

## From My Backyard to Our Bay

The birdhouse should be specifically designed for the bird species you wish to attract. The size of the entry hole is critical to accommodate the desired bird but keep out other larger species that might destroy eggs and young. Cats have a detrimental effect on the population of birds. Keeping cats inside instead of outside, may help attract birds to your backyard. Supply clean, fresh water nearby with a birdbath, saucer, or pond. All wildlife needs water.

Butterflies are attracted to a large variety of plants that produce nectar. Caterpillars, the larval stage of butterflies, need nourishment from different plants. Bees play a critical role in healthy wild plant communities (as well as gardens and agriculture) through pollination. About 30 percent of our diet is food produced through the pollination of fruits and vegetables. Use native plants in your garden to support pollinating insects as well as butterflies and birds. These plants provide the right food or nectar at the right time, and are generally well adapted to our local climate when planted in the right place.

Backyard ponds can be homes for fish, frogs, dragonflies, birds, butterflies, and many other creatures. A water feature is very effective in drawing wildlife to your backyard. Ponds and the landscaping around the ponds create an ecosystem of their own that is not only excellent habitat for wild creatures, but also a satisfying and relaxing place for you and your family. Research the correct location and construction of a small backyard pond and the equipment and plants that will keep it functioning properly. For a larger pond, engineered plans and permits will be required.



All wildlife is very vulnerable to the inappropriate use of many pesticides and other chemicals. Probably the single best thing a landowner can do for wildlife is to limit the use of chemicals and pesticides to an as needed basis and never exceed or ignore label instructions

### **Where To Get Help** for attracting wildlife and solving wildlife problems

- Cecil Soil Conservation District; 410-398-4411 ext. 3; <http://www.cecilscd.com>
- Maryland Department of Natural Resources Wildlife Problems; <http://www.dnr.state.md.us/wildlife/wlproblems.asp>
- National Wildlife Federation; 1-800-822-9919; <http://www.nwf.org/backyard>
- USDA-Natural Resources Conservation Service, Backyard Conservation; <http://www.nrcs.usda.gov/feature/backyard>