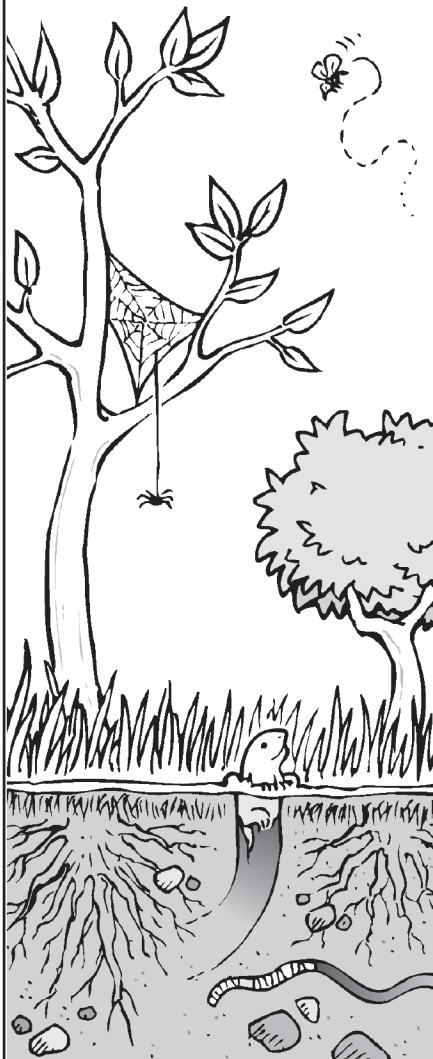




Integrated Pest Management

Why be concerned?

Synthetic pesticides are poisonous substances. Many of them are harmful to plants, animals and people. Many commonly used pesticides are carcinogenic and/or neurotoxins. Integrated Pest Management (IPM) is an approach that minimizes the use of chemical pest control, providing a safer, less expensive and more consistent eradication of any pest over the long term.



What is Integrated Pest Management?

Since pests are an integral part of the natural system, IPM works to keep them at tolerable levels by using cultural, mechanical and biological controls instead of chemical ones, whenever possible. IPM practitioners closely monitor the landscape and manage it to provide optimum growing conditions, since healthy plants are less susceptible to pests. This includes the elimination of conditions favorable to pests and promotion of natural controls such as beneficial insects.

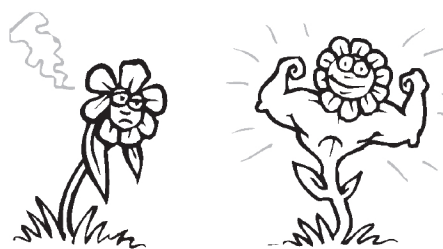
If additional pest controls are needed, the pest and its stage of development are identified and the least toxic control possible is used.

Pesticides should be used only as a last resort and only in a way that maximizes their effectiveness and minimizes damage to the environment.

Choosing Plants

Select plants that naturally tend to be free of major pests and diseases and are well-adapted to our temperate climate and to the specific soil, light and moisture conditions on-site. For example, plants that require shade are more susceptible to pests when grown in full sun. pH levels also affect a plant's ability to withstand pests.

For help identifying the plant best suited for your purposes and site, contact UGA Cooperative Extension.



Keeping Plants Healthy

Weeds, pests and plant diseases are usually the *result* of poor growing conditions, not the cause of them. To keep plants healthy, use established horticultural techniques. Maintaining good soils and other growing conditions are the foundation of any IPM program. The following steps are suggested:

- Plant seeds and plants when they are the least susceptible to stress.
- Maintain a variety of plants instead of only one or two species.
- Aerate and add organic matter to the soil.
- Water and fertilize plants only as needed.
- Mow grass as high as possible (2.5" - 4") and leave clippings on the lawn.
- Space, thin and prune shrubs and trees to promote air circulation.

Promoting air circulation is the first and most important thing that can be done to manage plant disease.

Observing Your Landscape

Monitor the site at regular intervals. Learn to identify pests and diseases, as well as beneficial insects. Learn about the development stages of pests and what they need to survive. This way, you can time control actions so that they take place during the most vulnerable stage of weed, insect or disease development.

Defining “Damage”

Decide when a pest problem is serious enough to justify taking action. For example, broadening your definition of “lawn” to include certain “weeds” can reduce the need for chemical herbicides. Changing our aesthetic values is one of the most important things we can do to protect water quality.

Protecting Sensitive Areas

If a site is near a water body, a dry pond or drainage ditch, vegetable garden, children’s play area or public place, select a pest management technique that minimizes harm to these sensitive areas.

Evaluating Your Actions

Notice whether the treatment you selected worked and consider adjustments that might work better. Keep records of your observations, actions taken and the results of those actions.

The Secrets of Chemical-Free Pest Control

When treatment becomes necessary, select methods that are least disruptive to natural pest controls and least hazardous to human health and the environment. Start with cultural, mechanical or biological controls.

Cultural Controls

Cultural controls are practices that will keep plants healthy by selecting disease and pest resistant varieties and maintaining a good soil foundation. Redesigning the landscape so that it can’t support the pest can be the most cost-effective long-term cultural control strategy. For more information about maintaining a healthy landscape, see **Series #5, Fact Sheet 5.1**.

Mechanical Controls

Mechanical controls include:

- removing insect eggs, larvae, cocoons and adults from plants by hand
- removing weeds by pulling or hoeing
- covering the garden with landscape fabric or mulch to prevent weed germination.
- removing pest-infested plant residue in the fall.

Biological Controls

Many organisms feed on or infect pests. These natural enemies frequently prevent the pest population from reaching damaging levels. Biological controls include predators, parasites, pathogens, pheromones and juvenile hormones. For more information about these and other chemical-free control techniques, contact UGA Cooperative Extension.

Chemical Pesticides: a Last Resort

Chemicals are just one small part of the IPM plan. If pesticides are used, the least toxic one should be chosen and applied at the most effective time in the pest’s life cycle. For more information about using pesticides, see **Series #5, Fact Sheet 5.4**.

GETTING HELP

UGA Cooperative
Extension Service for
Cobb County(770) 528-4070
Community Partners for
Healthy Streams.....(770) 419-6303