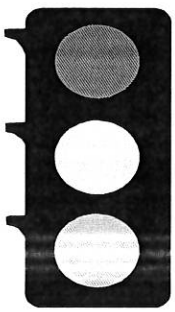
# DON'T BE A NOZZLEHEAD!

**THINK BEFORE YOU SPRAY**

# HOME LANDSCAPE

## USING INTEGRATED PEST MANAGEMENT (IPM)



- ***Do you have ants on the peony flowers?***
- ***Brown edges on the dogwood leaves?***
- ***Are the leaves on the hydrangea wilting?***

***If your first thought is to reach into the back of the closet for the can of insect killer, or get the sprayer out of the garage and fill it with pesticide and wage war against these pests–***

## STOP!

Maybe you should consider another traffic signal–the common traffic light. **Red–Stop–** don't do anything yet. **Yellow–Caution–**think about the consequences (good and bad) of applying a pesticide. **Green–Proceed–**but in an orderly fashion. What (exactly) are the insects? Monitor the insects and see what they are doing. Are they causing significant damage? Are there alternatives to applying a pesticide that may be safer for the environment, for you, your children? Could they be just as effective as a spray? Congratulations! You have, in a simple way, just followed the principles of Integrated Pest Management (IPM) to help you make educated, environmentally friendly decisions.

Integrated Pest Management (IPM) may sound like a fancy, hard to understand system. It is not. IPM is a simple, practical and flexible way to help manage pests in the home landscape. It involves the use of a blend of pest management tactics to protect plants against insects, diseases and invading weeds. People who practice IPM monitor their landscape and integrate cultural, biological, mechanical and chemical techniques to suppress pests. Think about going to the doctor. Your doctor uses a form of IPM on you. Information is gathered about history, signs and symptoms. Tests may be performed. Only after a diagnosis is made are treatment options considered.

## Basic IPM Principles

### *Identification and Diagnosis of the Pest*

The first step in pest control is accurate identification. Early, accurate identification and diagnosis are essential to a successful IPM program.

### *Monitoring*

Monitoring is the regular inspection of the landscape to determine the nature of the pest and cultural problems. This information can then be utilized to make decisions about management of the pest.

### *Action Threshold*

It is important to know that all pests don't have to be controlled. The term "action threshold" is used to describe the level of pest presence that requires control. Action thresholds vary considerably from pest to pest.

## Pest Management Strategies

IPM uses a combination of compatible control techniques. These include cultural, biological, mechanical, plant selection and chemical techniques. In many cases a combination of these strategies may be necessary.

***continued***

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- **Cultural controls** are modifications of practices to disrupt or reduce pest populations.

  ***For example:***
  - growing a healthy plant is one of the best ways to reduce pest populations.
- **Biological control** refers to the use of natural enemies to control pests.
- **Mechanical control** refers to the use of barriers or traps to exclude or catch pests.
- **Plant selection** involves the selection and use of plant varieties that are disease and/or insect resistant and compatible with the existing conditions.
- **Chemical control** includes the use of pesticides. The least toxic pesticide should be used initially. **Use pesticides as a last resort after other techniques have failed or show little success.** If applied at the correct time and rate, pesticides are usually safe and effective. **READ AND FOLLOW DIRECTIONS ON THE LABEL.**

## Using IPM on Home Landscapes

The following IPM strategies for the home landscape will greatly enhance the health of the plants and reduce the need for pesticides. **Maintaining the health of a landscape is the best method for reducing pest problems.**

### *Cultural*

- **Healthy soil**–is probably the most critical factor for successfully growing plants in the landscape. Addition of organic matter is beneficial in almost all soils.
- **Soil pH**–should be in the range that the plants prefer in order for the nutrients to be available. For most landscape plants this range is 6.0-7.0. There are exceptions including plants in the Ericaceous family–rhododendrons, azaleas, blueberries, etc., which require a soil pH of 5.0–5.5. A pH test is the only accurate way to determine the pH level and whether or not it needs to be adjusted.
- **Proper watering practices**–are also critical to the overall health of landscape plants. Most plants need 1-1½" of water a week during the growing season in the form of natural rainfall and/or supplemental irrigation. Deep, infrequent watering is preferred for optimum root growth. Watering early in the morning allows the leaf surface to dry off more rapidly and can help lessen some foliar diseases.
- **Do not over-fertilize.** Landscape plants that are grown in "good" soil need very little, if any, additional fertilizer.
- **Soils**–should be well-drained. Most plants will not prosper in a poorly drained, frequently waterlogged soil.
- **Use of a mulch(2-3")**–around plants can add organic matter, reduce weeds, help retain moisture and reduce soil temperature fluctuations.
- **Practice garden sanitation.** Destroy diseased plant material and clean-up plant debris and fallen leaves (especially if diseased).

### *Plant Selection*

Selection of the proper species and/or cultivar is important. Choose plants that are suitable for the area to be planted-consider cold hardiness, light and water requirements, soil conditions and exposure. Choose pest resistant plants when available. For example, *Cornus kousa* (Kousa dogwood) has far fewer disease and insect problems than *Cornus florida* (Flowering dogwood). The "right plant for the right place" certainly makes sense when planting landscape plants and is an important part of IPM.

### *Chemical Control*

IPM is not a pesticide free program. Home Landscape IPM incorporates all of the cultural factors discussed previously. Following such a program should greatly reduce the need for pesticides. However, if diseases or insects reach levels or an action threshold, the use of a pesticide may be necessary. Proper identification of the pest (insect or disease) is critical before any pesticide is applied. Timing of the application and the rate applied depend on proper identification of the problem. **READ AND FOLLOW DIRECTIONS ON THE LABEL.**

***Using Integrated Pest Management (IPM) is the best way to safe, long-term pest management with minimal adverse effects on the surrounding environment. Pesticides are just one of the tools used to effectively manage pests. Integrated Pest Management (IPM) practices can help you have an attractive, healthy landscape while minimizing adverse impacts on the environment and others.***

**OTHER BROCHURES AVAILABLE**

- **IPM – Basic IPM Principles**
- **IPM – Lawn Care**
- **IPM – Household Insects**

**FOR ADDITIONAL INFORMATION**

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