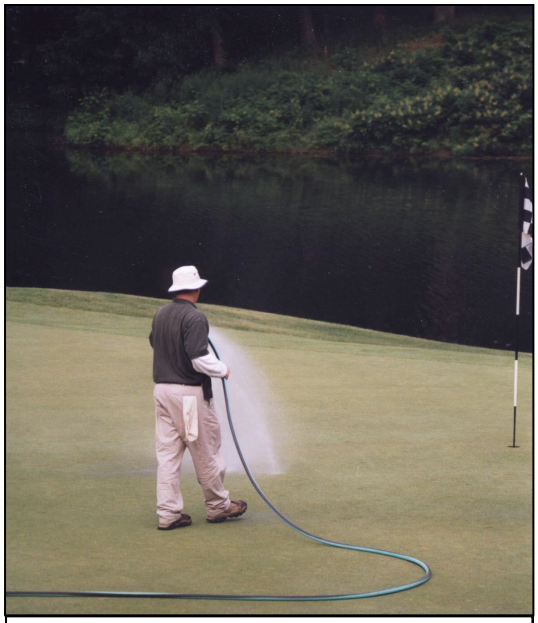
Audubon International

Fact Sheet

IPM: Landscape Eco-management

Integrated Pest Management (IPM), *Integrated Plant Management, Best Management Practices, Total Plant Care*— don't get confused by the complicated names. No matter what you call it, taking good care of the landscape you manage and doing so in an environmentally sensitive way should be a top priority for maintaining your property.

In this fact sheet, we use the term *Integrated Pest Management* or IPM. Put simply, IPM is an approach to pest control that employs a variety of methods to keep pest numbers low enough to prevent unacceptable damage or annoyance. It involves developing a strategy that will keep the trees, shrubs, turfgrass, or garden vegetables and flowers on your property healthy, while keeping undesirable weeds, insects, and diseases to a manageable level. Practicing IPM can result in significant pesticide reductions and financial savings, compared to the old "spray at the first sign of trouble, or even before" approach to managing problems. And while least-toxic chemical controls are sometimes needed as a last resort, they're targeted more specifically and more effectively using IPM methods.



IPM is a pest control strategy that employs a variety of methods to keep pest numbers low.

The ultimate result of IPM is a more informed approach to maintaining a healthy environment for both people and wildlife. To ensure the greatest success of your IPM program, make sure it includes the following components:

- Proper Plant Selection and Care
- Regular Monitoring
- Correct Pest Identification
- A Variety of Treatment Options
- Record Keeping & Evaluation

Proper Plant Selection and Care

Also known as "cultural practices," there's a lot you can do to make sure your plants stay healthy. Buying healthy plants, putting them in the right location, knowing their growth habits and needs, and keeping the soil healthy will ensure that your plants get off to the best start. Proper and timely pruning, mowing, fertilizing, and watering are additional cultural practices that cannot be underestimated. IPM is an approach to pest control that employs a variety of methods to keep pest numbers low enough to prevent unacceptable damage or annoyance.

Regular Monitoring

Scouting to determine if and when treatments are needed is a key component of IPM. Pay attention to both good and bad aspects of your landscape and aim to create a healthy balance between pest species and beneficial predators. When you spot a problem, ask, "What is the problem? Why is it occurring? Is intervention necessary? What is the best method of control?" Over time, you'll get to know what pests occur when and where, and identify "hot spots" that indicate when trouble is brewing.

Correct Pest Identification

Correctly identifying the problem and potential solutions takes more effort than using a chemical treatment right away, but it's worth it. You'll learn more about your landscape, identify underlying conditions or cultural practices that need attention, and better target the specific problem with an effective solution.

A Variety of Treatment Options

Since there's no one magic solution to solve landscape problems, equip yourself with a variety of effective treatments. Sometimes, planting pest-resistant plant varieties or modifying the plant's habitat work best. Or you might change your cultural practices, try physically controlling the problem, or choose a biological control. If you do choose a pesticide, seek the least toxic option and follow label directions carefully.

Scouting and maintaining scouting records is key in employing IPM.

Record Keeping and Evaluation

When you scout your property, record the results. Include the date, weather conditions, any problems observed, the method of treatment, and results. This will allow you to track season-to-season trends and modify treatment solutions as needed.

If you hire a landscape contractor to take care of your grounds, find out if they practice IPM. Ask whether they make regular chemical treatments to prevent problems or treat only when disease or insect threshold levels are exceeded. You can also ask them whether they assess underlying conditions that may cause insect, weed, or disease problems. This may include poor drainage, improper watering, poor soil, excess thatch, or improper plant choices or placement. Some companies address these conditions, while others simply offer advice. If you have underlying problems, try to deal with them promptly. You'll save money and time in the long run if you do. By following these practices, you'll maintain a healthy landscape and a healthy environment.

Legible, regular records are crucial to the success of your IPM program. Documentation is an important tool during and after the season. Set up a clear, concise way of recording all pest information to ease the task of record-keeping. The Cornell IPM Program recommends keeping three types of records: a field data sheet, weekly summaries, and control.

- **Field Data Sheets**

  Field data sheets vary from a sheet of paper with maps drawn of turf areas to the use of a sophisticated hand held computer. The field data sheet serves as the tool to record what, where, and how many pests are present during scouting. Additional information can be recorded on the field data sheet, for example, environmental conditions and observations of turfgrass growth and health.

- **Weekly Summaries**

  When the week's monitoring activities are finished, the results should be compiled on a summary sheet. The information is itemized for each turf management area, recording the pest incidence and population, and any unusual circumstances. Weekly summary sheets inform the pest manager in an organized fashion about what is happening at each area during each week. Based on this information the turfgrass manager can identify priority areas and then decide on control strategies.

- **Control Information**

  Recording information pertaining to control methods and their results are as vita to a successful IPM program as are the scout's records. The combined pest and control information forms the basis for judging efficacy and cost as well as making future plans. Pesticide use records must be complete, up-to-date and as detailed as possible. Preferably, the pest manager should record when pesticides are applied; name, classification, and amount of active ingredient; amount of material and water mixed for the application; how much of the pesticide was actually applied and where, including size of the area; type of application method (spray, granular, etc.); and labor hours.

- **Evaluation**

  Keeping good records enables you to ascertain important pest and control trends. For example, have there been reductions in total amounts applied, or has there been a shift to pesticides of a higher or lower toxicity? Comparing annual information also points out recurrence and trends of pests, allowing you to determine which control measures have been most successful.