Use of Pesticides, Herbicides and Fertilizers

Invasive weeds and insect pests are a common problem for many yards and gardens. Effective management of these pests in the least toxic method requires careful planning and implementation. Developing an *Integrated Pest Management Plan* is often the best solution for managing pests and reducing pollution of ground and surface water bodies.

Introduction

Integrated Pest and Vegetation Management (IPM) is a natural, long-term, ecologically-based systems approach to controlling pest populations. The goals of IPM are to both encourage optimal selective pesticide use (away from prophylactic, broad spectrum use), and to maximize natural controls to minimize environmental side effects.

Following the integrated pest management process gives you the information you need to minimize damage by weeds, diseases, and pests and to treat those problems with the least toxic approaches.

The IPM Process

Step One: *Correctly identify problem pests and understand their life cycle.*

Step Two: *Establish tolerance thresholds for pests.*

Step Three: *Monitor to detect and prevent pest problems.*

Step Four: *Modify the maintenance program to promote healthy plants and discourage pests.*

Step Five: *If pests exceed the tolerance thresholds.*

Use cultural, physical, mechanical, or biological controls first. If those prove insufficient, use the chemical controls described below that have the least non-target impact. When a pest outbreak strikes (or monitoring shows one is imminent), implement integrated pest management then consider control options that are the least toxic, or have the least non-target impact.

Step Six: *Evaluate and record the effectiveness of the control, and modify maintenance practices to support lawn or landscape recovery and prevent recurrence.*

Keep records! Note when, where, and what symptoms occurred, or when monitoring revealed a potential pest problem. Note what controls were applied and when, and the effectiveness of the control. Monitor next year for the same problems. Review your landscape maintenance and cultural practices to see if they can be modified to prevent or reduce the problem.

A comprehensive integrated pest management program should also include the proper use of pesticides as a last resort, and vegetation/fertilizer management to eliminate or minimize the contamination of stormwater.