

# Watching Your Tees & Q's

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## What is Integrated Pest Management for Turf?

During the late 1960's and through the 1970's a great deal of concern was aroused in America about the quality of our environment. After decades of no concern and often times excessive practices, we began to realize that the long term effects of these practices were having a detrimental impact on the world we live in. Along with nuclear energy and industrial waste, the use of pesticides came under serious attack. All too often the attacks came from "Environmentalists" with a fanatical gleam in their eyes. These environmentalists were totally anti-chemical of any form and proposed that we live in a natural, all organic world. However, from the practical standpoint, we are aware that without the use of chemicals in agriculture there is no way we could hope to maintain our current standards of living. One tremendous benefit this turmoil caused was a realization that indiscriminate use of chemicals was not economically or ecologically sound. The result has been an increase in efforts to find and use alternative means of pest control. The term, "Integrated Pest Management" was coined to describe this new approach.

What is Integrated Pest Management or IPM? In its current form, IPM is a management strategy that blends sound production practices, (fertilization, irrigation and cultural operations) with biological control agents and chemical control intervention. This type of approach, however, is not something that is totally new. Many of the current practices were originally developed in the pesticide days before World War II. In the past decade, a great deal of university research has been conducted to develop sound IPM programs for the major agricultural crops such as cotton, corn and soybeans. As a result, there are numerous IPM programs currently in use in the field. Some examples are the insect scouting operations for cotton and soybeans, and also the "no-till" planting operations.

There are five basic fundamental areas or tactics that are considered as pest management strategies. They are:

1. Plant resistance
2. Parasitoids or predators of the pest

3. Diseases as control agents
4. Attractants, repellants and genetic control of the pest
5. Chemical pesticides

With the idea of using as many as possible of these tactics in the overall production program. One major downfall of IPM programs as they are practiced for crops that has limited their adaptation for golf courses, is that a certain level of damage is allowable. With cotton for example, the fields are scouted on a regular basis, but until there are a set number of pest insects per 100 feet of row, chemical applications are not made. I don't think too many superintendents would keep their jobs for long if the greens had an outbreak of a disease and they told the Greens Chairman that they were waiting for the right "economic threshold" to build-up before they were going to make a fungicide application. While many of the factors involved are well understood, to date sophisticated IPM programs for turf have yet to be developed. But, we should definitely not ignore the concepts in our overall programs or day-to-day operations.

A good turf IPM type program would incorporate:

1. Frequent observation
2. Accurate record keeping
3. Using the most adapted species (this may not be possible on an established course)
4. Sound management practices
5. Accurate identification of pest (insect, disease or weed species)
6. Understanding other stresses in relation to the pest
7. Incorporating any cultural or biological control techniques available
8. Wise use of pesticides

I know that after reading the above practices everyone will say that they are already doing these things in one form or another. By introducing a different mentality and reviewing the basics of this control strategy, hopefully you can approach your current practices from a new angle and improve their effectiveness. ■