What Is IPM? How Does It Affect You?

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Exactly, what is this acronym or abbreviation that has pervaded the trade journals and golf course industry today? IPM stands for Integrated Pest Management, or as the environmentally correct version Integrated Plant Management.

The definition of IPM, as stated by Victor A. Gibeault and Associates, is as follows: "IPM—multiple tactics used in a compatible manner in order to maintain pest populations below levels that cause economic or unacceptable aesthetic injury without posing a hazard to humans, domestic animals or other non-target life forms."

Through one limiting factor or another, superintendents have always practiced portions of IPM, the classic example being that there is no monetary incentive to apply chemicals unnecessarily. As we move into the 21st Century, a total IPM program for your golf course will be required (written and practiced) to justify the high standards of today's golfers.

The basic components of an Integrated Plant Management program include scouting and monitoring, regulatory, genetic, biological, cultural, physical and chemical management. While each of these elements is important in the total program, it is the synergistic combination of all the components towards a common goal that is the strength of IPM. It also means that by depending less upon one component (such as chemical), you have to increase another or all other components to continue to meet your standards and the membership's standards.

Scouting and monitoring are your eyes and ears of the turf environment and are the foundation for most turf management decisions. Routines of daily scouting and monitoring should be documented in conjunction with recorded environmental conditions such as high and low temperatures, relative humidity, soil temperatures, rainfall, etc. These climatic records in turn determine degree days (DD), which directly coincide to the temperature driving life cycle of all biological systems. The degree days become very helpful in determining timing of insect and weed control applications.

Regulatory influences insure seed source integrity (Oregon Certified Blue Tag) and perform a check and balance for new golf course products.

Genetic research today has become a hot bed of activity and a large recipient of many research dollars from different golf industry associations. Plant breeding to genetically develop improved cultivars of turfgrass to drought, insects and other pests will continue to bring us new choices for our golf courses.

The turf microenvironment has always been a dynamic biological relationship of antagonistic and protagonistic organisms, with the exception of new 100% sand greens. Today's biological research has developed turf pest specific organisms that can help control and keep them below detrimental populations, a current example being "Exhibit" for the control of cutworms by parasitic nematodes.

Cultural management strategies have been used by superintendents from the beginning of golf to help control pest problems. Sound cultural practices of fertilization, irrigation, mowing and thatch reduction help insure the turf's health and therefore increase that plant's ability to overcome adverse pest pressure. A good example of good cultural management to decrease disease pressure is to manage your irrigation applications so that the turf foliage stays as dry as possible for as long as possible.

Physical means of control include providing good surface and subsurface drainage, good air movement and the use of sharp mowers to help reduce conditions that predispose the turf to higher pest incidence.

Contrary to popular perception, IPM doesn't mean the abandonment of chemical use. Pesticides are a component of an integrated plant management program, and whose use and/or decreased use becomes directly based upon the strengths of and/or weaknesses of the other components of the IPM strategy. When pesticides are applied, choose the most effective chemical to that specific pest, and also the least toxic to non-target organisms.

I encourage each superintendent to write and develop a total IPM program for his or her course. By continuing to show our professionalism as environmentally sound stewards of our golf courses, we will have the ability to use all the management tools available to us, rather than let those not in tune with our industry to make all those choices for us.