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THE NEW JERSEY TURFGRASS ASSOCIATION

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# **1998 RUTGERS TURFGRASS PROCEEDINGS**

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The Rutgers Turfgrass Proceedings is published yearly by the Rutgers Center for Turfgrass Science, Rutgers Cooperative Extension, and the New Jersey Agricultural Experiment Station, Cook College, Rutgers University in cooperation with the New Jersey Turfgrass Association. The purpose of this document is to provide a forum for the dissemination of information and the exchange of ideas and knowledge. The proceedings provide turfgrass managers, research scientists, extension specialists, and industry personnel with opportunities to communicate with co-workers. Through this forum, these professionals also reach a more general audience, which includes the public. Articles appearing in these proceedings are divided into two sections.

The first section includes lecture notes of papers presented at the 1998 New Jersey Turfgrass Expo. Publication of the New Jersey Turfgrass Expo Notes provides a readily available

source of information covering a wide range of topics. The Expo Notes include technical and popular presentations of importance to the turfgrass industry.

The second section includes research papers containing original research findings and reviews covering selected subjects in turfgrass science. The primary objective of this section is to facilitate the timely dissemination of original turfgrass research for use by the turfgrass industry.

Special thanks are given to those who have submitted papers for this proceedings, to the New Jersey Turfgrass Association for financial assistance, and to those individuals who have provided support to the Rutgers Turf Research Program at Cook College - Rutgers, The State University of New Jersey.

Dr. Ann B. Gould, Editor  
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# TURFGRASS IPM IN SPORTS AND RECREATION

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As athletic field managers we face many challenges. We are responsible for providing safe, playable, and attractive natural grass fields for sports and recreation, often under very difficult conditions. We are all familiar with the overuse of limited field space, unpredictable weather, and mistakes in the original construction. To these we can add communication problems, including major league expectations on little league budgets, and other challenges unique to our situation. And now, on school grounds and parks across the country, another major concern has been raised. As society considers the unanswered questions regarding the risks involved in the use of pesticides, people are becoming increasingly interested in how we manage our turf. They are asking us to use our heads in managing pests and to use chemical pesticides as a judicious last resort. Clearly, this is not an unreasonable request, and Integrated Pest Management (IPM) provides the means to honor it.

IPM involves the control of turf pests for a holistic perspective. It is a guiding principle of the overall management program and ties all pieces together. It is no coincidence that those same practices that promote an attractive, deeply rooted, durable playing field also produce a stand of turf more resistant to pest pressures. Indeed, the foundation of the IPM program is growing healthy grass. Viewed from this perspective, our challenges become opportunities to practice more sensible management, produce better fields, and promote our profession.

As sports turf managers we have an obligation to examine the controversy surrounding pesticide use. As we work to responsibly do our

jobs, it's easy to become alarmed by the intermittent hysteria and to feel pinned between opposing camps. We are sometimes expected to choose sides when in all probability the actual risks have been overstated by one side and downplayed by the other. However, the exuberant, early days of chemical pest control in agriculture did show us that the potential for harm to the environment and human health must be considered in the design of management programs.

We learned also that relying solely on the chemical approach can create problems such as the development of pesticide resistance and disruption of natural parasite and predator/prey relationships. We have already seen similar problems develop in turf. IPM has emerged as a strategy to avoid these problems and to improve pest management by incorporating other control measures with the use of pesticides. Turfgrass IPM embarks, in its infancy, towards an understanding of turf ecology and more effective management strategies based firmly on common sense.

It is generally acknowledged that the manufacturers of turfgrass management products have been more influential in the development of the standard, "conventional" turf program than have university turfgrass outreach efforts. This is a trend the IPM practitioner seeks to reverse. These product-based strategies, while allowing non-experts to cultivate turfgrass, naturally exhibit a certain bias. Many athletic fields are currently managed using some variation of the "five-visit" approach made popular by the lawn care franchises.

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IPM is knowledge intensive and the practitioner designs programs specific to his situation. It is a decision making process that involves a deliberated review of options and the selection of the most sensible and effective methods available. The practitioner seeks quality information so as to make quality decisions. To succeed, he must know his craft. Calendar-based, prophylactic application programs are replaced with monitoring and population-based decisions. Training for pesticide applicator certification emphasizes pest identification and product chemistry. IPM builds on this foundation but pursues broader understandings of pest biology that enable the practitioner to put pest pressures in perspective and establish useful action thresholds. Management records, begun as regulatory mandates, become detailed references and tools for focusing efforts. IPM abandons conventional programs in favor of holistic strategies that address the back-to-basics issues of turfgrass culture. Sportsturf IPM is the honing of craftsmanship. Our involvement and experiences insure the continued development of IPM tools and techniques.

Using an IPM approach, a good manager doesn't just solve problems, he prevents them. The application of a fungicide to control summer patch on a poorly rooted turf does not spell ecological disaster, nor does the application of an insecticide to stunted roots that can't tolerate grubs, or the application of herbicides to control booming populations of goosegrass, knotweed, and annual bluegrass. However, this does start to sound like irresponsible management. Besides the treatment of symptoms, has an effort been made to evaluate field use scheduling, or modification of a fine textured soil, or aerification frequency, or equipment needs? Has a soil test been conducted? Is the pH low, or does a nutrient deficiency exist? Is the fertility program pushing shoot growth and color intensity at the expense of the root system? How and why were

these particular turf cultivars selected for use on this field? Are we certain what grasses we are managing? Is the mowing height sensible? What about mowing frequency? These questions, holistic in nature, are representative of the IPM approach and scope. The athletic field manager's most recognized asset is common sense and IPM is sensible pest management.

The athletic field is an ideal venue for IPM strategies. Typically, the manager of athletic fields does not profit from the use of pesticides but instead realizes savings when an unnecessary application is avoided. The sports turf manager's love of the outdoors drives his desire to minimize risks to the environment. His awareness of the frequent, close physical contact between athlete and turf motivates him to seek out and employ alternative, least toxic methods. His affinity and sense of responsibility towards the children who play on his fields serve to remind him of the value and importance of his work.

The lifeblood of IPM is continuing education. Engaged in an open-minded pursuit of new developments and knowledge, we sincerely commit to professionalism and the cultivation of expertise. In much the same way as the golf course superintendent rewrote his own job description, and changed public perception in the process, we must become more visible and proactive. IPM provides the means by which challenges become opportunities, and through it the sportsturf manager assumes a leadership role within the green industry. We must act as accessible, reliable sources of accurate turfgrass information and vocal supporters of natural grass playing fields and environmental stewardship. We can invite those we serve to reevaluate their perceptions of who we are, what we do, and possibly even what we're worth. IPM means using our heads, a prerequisite also for meaningful dialogue.