

Managers will have fewer tools

In addition to fostering integrated pest management implementation, the new initiative will increase the level of safety testing required of manufacturers to obtain new use-registrations or to maintain an existing pesticides' use-registration. In the next three years, implementation of these higher safety standards will lead to a substantially reduced number of chemical tools on which managers will be able to count. Fully two-thirds of the more than 600 pesticides currently registered for use have not been fully tested for human and environmental safety. Many narrow-use products may be lost because manufacturers will choose to stop making them rather than meet the new safety standards. And some broad-use pesticides may make label modifications that will restrict their use in turf management.

For what ever reason, three years from now, there will be fewer chemical pesticides available for use by turfgrass managers. But lower turfgrass quality won't fly. The public's heightened chemical paranoia has led to a substantial increase in questioning of turf and agricultural managers about the use of their chemical tools. Yet, at the same time, demonstrating its typical schizophrenia, the public has indicated that with the expected

reduction in pesticide usage it will not tolerate any reduction in quality.

Food shoppers want fewer pesticides to be used to produce their food, but they are unwilling to accept some of the inevitable reduction in quality that will come with this reduction in pesticide usage. Golf course superintendents are under increasing pressure from golfers and greens committees to reduce pesticide usage, yet the same golfers have let superintendents know that they expect current course playability to be maintained.

How to keep up quality with fewer tools?

Turfgrass managers are stuck. They know that any substantial reduction in total pesticide use under the current management strategies will lead to a substantial reduction in turfgrass quality. Tinkering around with current strategies might be able to deliver pesticide use reductions of from 10% to 15%, but even that modest level of reduction would require a substantial effort.

Tinkering with decreased herbicide and insecticide usage might produce some significant pesticide use reductions without a substantial impact on turf quality, but restricting chemical fungus control applications, for example, would prove problematic as turfgrass quality would vary dramatically, depending on the disease to be controlled and current weather conditions. Clearly, modifying current turfgrass management techniques will not be able to reach the initiative's stated goals of 50% reduction in total pesticide usage by the year 2000. What is needed is a different approach.

Problem solver: integrated pest management

The pressure on the pesticide applications industry to maintain both food quality and turfgrass aesthetic standards while reducing chemical inputs will continue to increase. New biologically based pesticides will be able to replace some of the chemical pesticides. But more than anything, this pressure will put an increasing premium on the accurate and timely use of those chemical tools that remain.

When turfgrass managers use a chemical pesticide, they must be sure of the pest with which they are dealing, have a good idea about the size of the pest population, and the present life cycle stage of the pest. The full implementation of turfgrass integrated pest management techniques offer the only realistic format to accomplish this increasingly difficult juggling act. Whether or not we like it, turfgrass managers in the year 2000 and beyond will be using integrated pest management. ■

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by Dr. Peter Landschoot

and

Mr. Andrew McNitt

both of Penn State University