



Choose the right turf species for your climate, budget, use, water supply, etc.

Management on the Edge

by **JAMES F. MOORE**

Mid-Continent Director, USGA Green Section

“**M**ANAGEMENT on the edge of what?” you ask. Unfortunately, many superintendents are on the edge of failure. A rapidly growing number of superintendents find themselves in situations where they are under excessive stress, in constant fear of losing their jobs, and truly only a step away from failure. On the other hand, a small but growing number of superintendents know their work, and have a great deal of justified confidence in themselves and in their positions.

What are the primary differences between these two groups of individuals?

What do the successful superintendents do differently? Although the answer may be complex, the overriding common ingredient is that these superintendents avoid putting themselves into situations where failure is a greater possibility than success. They are basically sound in turfgrass agronomics and the requirements of golf. At least four agronomic trends in the industry of golf course management have greatly increased the chances of failure.

Turfgrass Selection

In a backward sort of way, the tremendous success of breeders has also

brought about a new set of problems. With improved varieties of nearly every type of grass used on the golf course, there is a growing tendency to ignore the regions of adaptation for each species. Without question these regions have stretched quite a bit, providing greater flexibility in grass selection. Unfortunately, consultants, golf professionals, architects, and even superintendents are convinced you can grow anything you want, anywhere you want, as long as you spend enough money and hire the right superintendent.

One notorious example is the broad-scale planting of bentgrass greens in

climates far better suited to bermudagrass. Certainly those rare clubs with limited play, excellent construction, and large budgets may do just fine. In truth, however, very few clubs have such an ideal set of circumstances. In most instances, the greens end up under severe stress for four to six months of the year. Such greens are obviously susceptible to failure due to pests, weather, and excessive traffic. Minor problems normally become major losses of turf. This failure is almost always attributed to mistakes by the superintendent, and the inevitable parade of one superintendent after another begins.

Chemical Usage

Just a few years ago, it seemed like the turfgrass industry was losing chemicals faster than new ones were being introduced. Today, it seems like a new chemical is unveiled in a trade journal every month. If you collect all the labels available at a turf conference, you can find claims to solve every turf problem in existence. With so many cure-alls,

you would think *Poa annua*, *Pythium*, and mole crickets would all be on the endangered species list. There is a trend to substitute chemicals for good judgment, good construction, good management, and properly designed and maintained irrigation systems.

Combine excessive chemical use with improper turfgrass selection and superintendents find it necessary to make more and more pesticide applications a year. On these courses, it is only a matter of time until resistant organisms develop or the turf overdoses on the chemicals. Too often it is a combination of the two.

Another trend in the industry that concerns chemicals is the use of recently introduced products in a manner prohibited by the label. All good superintendents should experiment with new products, and often their work leads to changes in the manufacturer's original recommendations. However, such work should be carried out on the nursery and in a controlled manner, not on the greens, where unpredictable results often lead to disaster — and usually a change in superintendents.

Fertility Practices

The third trend concerns fertility practices. In the interest of putting green speed, nitrogen has been reduced to bare minimums. In our efforts to discourage *Poa annua*, phosphorous fertilization is often completely eliminated. In spite of significant research that indicates the value of potassium, too many greens remain well below recommended levels. There is a tremendous difference between greens that are lean and mean and those that are undernourished to the point that they are unable to carry out vital plant functions, such as photosynthesis.

Such undernourishment often occurs when there has been a significant change in topdressing practices. After prolonged sand topdressing over a soil base, it is common to see major changes in nutrient availability. When the bulk of the plant's roots are confined to a sand zone of very low CEC (cation exchange capacity), fertility practices must be increased accordingly.

Failure to choose the right turf species places the turf under constant stress much of the year. Failure is likely.



Player Demands

A final trend involves the players themselves. Think of how the game has changed in the past 15 years. Many players demand on a daily basis the same type of conditions normally reserved for championship events. Too many self-appointed experts base their assessment of a course strictly on the speed of the greens. These individuals demand greens that measure 10 feet or higher on the Stimp meter, ignoring the fact that 8½ feet is considered fast for member play. Speed is demanded regardless of the budget, amount of play, climate, or construction of the greens. These individuals demand greens that measure 10 feet or higher on the Stimp meter, ignoring the fact that 8½ feet is considered fast for member play. Speed is demanded regardless of the budget, amount of play, climate, or construction of the greens. These same factors that make it difficult to maintain healthy turf at ¼ inch can prove insurmountable at ⅛ inch, and often result in major losses of turf and putting quality. The parade of changing superintendents grows longer.

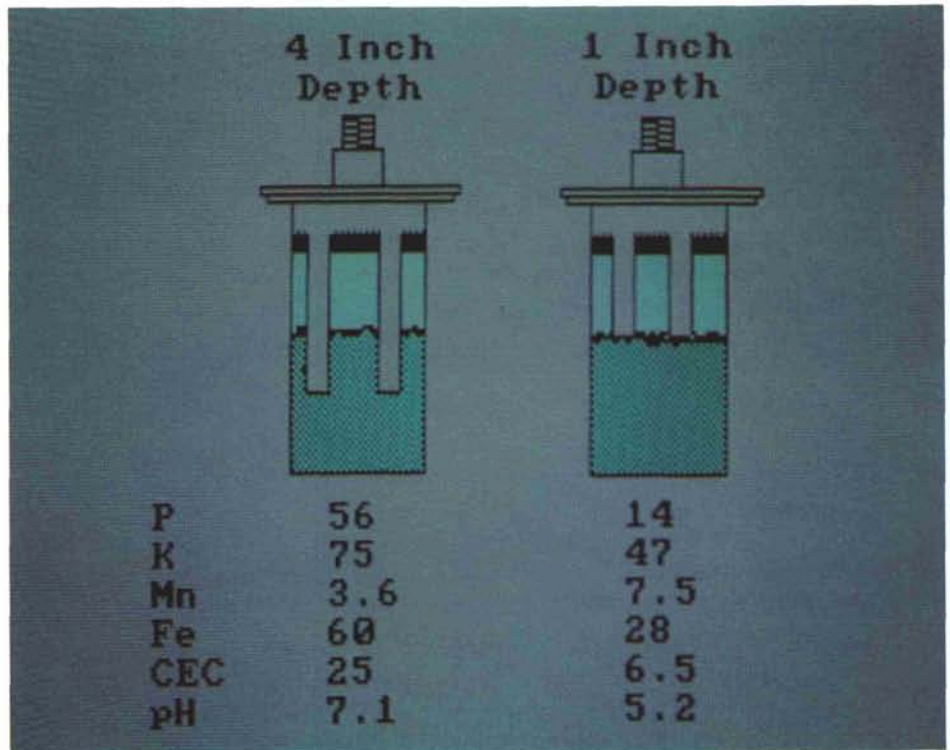
Today, Green Section agronomists seldom see major losses of turf from a single cause. Usually a whole spectrum of events must be recognized and corrected individually. When the four trends discussed above are combined, it is easy to see how the superintendent may be in the high-risk category for failure.

How can a superintendent avoid "Management on the Edge?"

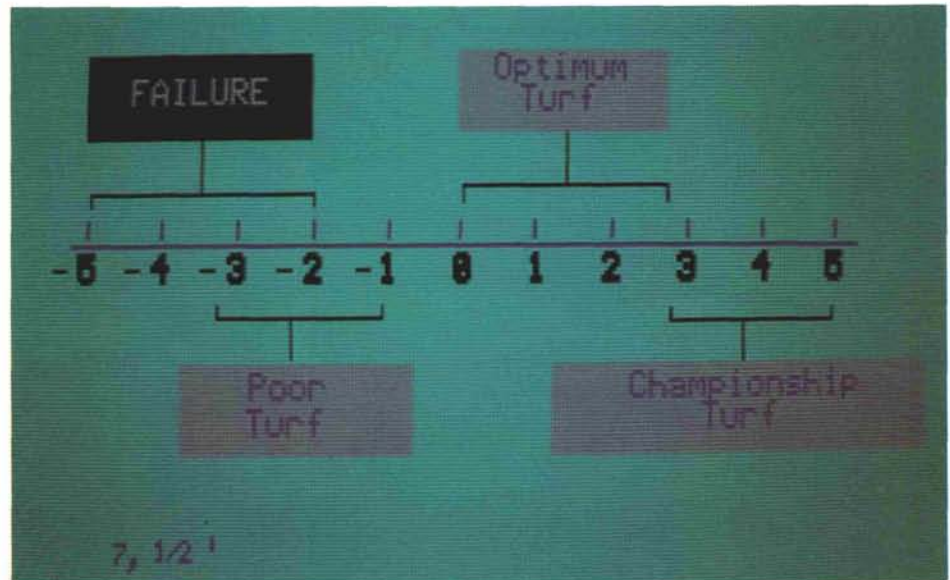
1. Examine and document all the factors that must be considered when choosing a turf for your course. These include the irrigation system, budget limitations, green construction, type of membership, your ability, and, of course, the grasses' zones of adaptation.

2. Avoid looking for chemical solutions to every problem. Although chemicals are some of our most valuable tools and as yet we cannot avoid using them altogether, they are not a substitute for good agronomics. By far the best chemical pest control programs are those that are as simple as possible. Also, far too many superintendents rely strictly on systemic fungicides and fail to include in their spray regime contact fungicides that have proven effective for years. Rotation of pesticides is still a must in any pest control program.

3. Utilize the unbiased services of the Green Section to help you and your membership identify and reach your course's maximum potential. A second opinion is simply good business. The Turf Advisory Service is available to all USGA Member Clubs. See the inside cover of this magazine for the address and phone number of your regional office.



Layered greens brought about by a change in topdressing practices can significantly alter soil fertility.



There is a middle ground between championship conditions and poor turf. Strive for it for daily play.

4. Finally, remember, you are dealing with Nature, and your turf is subject to stresses beyond your control, regardless of your education or the maintenance budget. Attempting to maintain today's championship quality on a daily basis is an invitation to disaster. Select a level of maintenance that provides good playing quality and addresses the agronomic needs of your turf.

What is the difference between the successful superintendent and the one

who is on the edge? The successful superintendent has found the proper balance between the two powerful and unpredictable forces — the demands of the players and those of the turf. He can shift his efforts to correspond to a temporary increased need by one without abandoning the other, because his programs are consistent and based on sound agronomic principles. He, too, is always on the edge — but of success rather than failure.