



IMPROVING GOOD TURF

By James M. Latham
Director, Great Lakes Region,
USGA Green Section

In our zeal to achieve perfection in turf quality, we sometimes go overboard on certain facets of management and actually work against ourselves. Years ago at a Penn State Conference, the remark was made that most people want to get rid of *Poa annua* when it is healthy, vigorous and in bloom. When it gets sickly and begins to die, however, no stone is left unturned to save it. This is just another paradox in turf management and in our definition of "Good Turf."

Today we have excellent tools with which to work — good grass varieties, good fertilizers, good chemicals and good machinery. Why is it so difficult to put it all together? Probably because we are difficult to satisfy and continually raise our sights to more lofty goals. In so doing we often forget the many interactions in turf management and overdo one phase to the detriment of others.

Once upon a time the goal was to raise the fertility level of soils to produce ever greener, more vigorous grass. In Florida some greens were receiving a pound of N per 1,000 sq. ft. 52 weeks a year. In Oklahoma fairways were subjected to 10 to 12 pounds of N per 1,000 sq. ft. per year. In this area 6 to 8 pounds of N for fairways was not uncommon, and 8 to 10 pounds was put on some greens. This heavy growth caused thatch formation, increased incidence of hard to control diseases, high mowing requirements and poor golfing conditions.

Then came automated irrigation that was to cure all ills. Few people really understood it and most overused it. The result was increased compaction, increased *Poa annua*, and we produced swamp-like conditions after an unexpected rain.

The super herbicides arrived about this time to take care of all undesirable plants also. Weakened root systems, chemical uptake by trees and shrubs, irrigation water contamination etc., became other trouble zones.

Recently, too much faith was put into systemic fungicides. They are great materials, but some fungi rapidly became immune to their action when used continually. This immunity is more permanent than an E.P.A. ban.

Historically, Americans have thrived on inventions and the latest thing had to be the best thing. As we continually raise turfgrass quality and playing conditions, improvement comes in smaller and smaller increments. Panaceas are harder to come by. We know that the new bluegrasses are no more resistant to certain diseases than Merion, as their stands mature. Perennial ryegrasses are not nearly as perennial as we thought.

From a management standpoint, improvement of good turf lies in perfection of our techniques and the careful utilization of beneficial materials and machinery, both new and old. Some points to be considered in improvement are:

Will new turfgrass varieties be better than what I have now?

Will different soil mixtures be the answer to better greens?

Can I improve my planning to make better use of the materials now available?

Certainly the last item deserves much more thought by all of us. The following suggestions may help guide our thoughts on evaluation:

1. Develop realistic goals and deter-

- mine the turf quality attainable.
 2. Determine optimum fertility rate and ratio to provide the growth rate desired. Bear in mind that quality, not quantity production is now the basic aim. Remember that there is a difference among golf course soils and whether clippings are removed or not.
 3. Reexamine the timing of all operations to see if better arrangements can be made. This is especially true of aeration vs. herbicide applications. Fertilization timing is equally important.
 4. Bear in mind that most, if not all, herbicides have an effect on desirable as well as undesirable plants. Try to find out the effect before use.
 5. Adequate irrigation is often easier to provide than adequate drainage. Get a long range drainage plan set up, determine a priority program and carry it out.
 6. Improve your mechanical knowledge and upgrade preventive equipment maintenance to minimize down time.
 7. Begin in-service training programs, even on a small scale. Your employees need to know why some operations are necessary as well as how to do them. As golf course maintenance becomes more sophisticated, more individual finesse is required by the entire staff.
- This approach will utilize new materials and machinery as well as helping to make more efficient use of familiar things. It will also encourage more productive effort from the major budget item, labor. Good turf can be improved, through better management of all the resources now available to golf superintendents, through coordination of effort, and cooperation among the people involved.

