



**Random thoughts**

For some unknown reason I could discover no dominant theme for the editorial in this issue. Recent events, conferences, field days and visits have covered so many facets of turf that it seems best to record thoughts as they have come to my mind.

At the field days that I attended there seemed to be a drop in attendance among golf course superintendents. One factor was the weather which kept many at home. *Pythium* was rampant in many areas and *Poa* was dying by the yard. There was a scarcity of golf course architects at field days. It may be that they are depending on their consulting agronomists to bring the technical information back to them—as needed. Perhaps they are all so busy building new courses that field days are difficult to fit into their schedules. One superintendent suggested that their appearance would do much to build confidence among the golf course superintendents. I sense that they miss the chance to chat with the architects and to get “gripes” off their collective chests.

Sod field days are growing in popularity. This is a burgeoning segment of the turfgrass industry that merits a great deal of attention. Sod growers use only the purest Certified seed to meet rigorous standards, thus effectively marrying seed and sod. Not to be left out are those sod types that are produced vegetatively. Hopefully sod producers might come up with a self-imposed assessment to build a fund that could be devoted to research and education. The public would support a surcharge that would insure continued improvement of sod products.

Many young people in the turfgrass field profess to be deeply interested in the historical sketches that I've been invited to present at various functions. Hopefully I will

have the time to develop the theme, A Sense of History, but I may need encouragement.

Cutbacks in money for turf at colleges and universities seem to be the order of the day in spite of the growing economic importance of turf. This puts pressure on turfgrass councils and foundations to generate financial support or to see the plow put to at least a part of the experimental plots. This is a point in time when we need all the technical help we can get to learn how to produce top notch turf with some of our most reliable turfgrass protectants denied us. Then, too, with evidence mounting in favor of real turf and with the four-day work week staring us in the face, we must do a better job in

amending soils and in selecting and managing our grasses. The public is learning how good *good* turf can be and the turfgrass managers will have to produce results.

Communications among the various components of the turfgrass industry continue to improve. Newsletters have made tremendous strides in effectiveness, in informing readers, in composition and in format. Also, I believe that there is a complete exchange among the various publications. The public relations angle is much better than it used to be, thanks to some very astute writers and to some understanding newspapers and magazines. But as one writer put it, “If you have something that you want me to say in my paper get it to me. I'm not coming to you to get it!”

Leadership is a quality that we are seeking constantly. We see aggressive leadership developing particularly in graduates from university courses where the student is taught how to think. We are thankful for the guidance and counsel of those who have had rich experiences and who are ready and willing to share their wealth.

In looking back over my 44 years  
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of deep personal involvement in almost every facet of turfgrass, all I can say is, "We've come a long, long way!" The finest development of all is the host of friends I've made around the globe—all of whom are dedicated to developing better turf.

**Q**—The soil-less mixture for our new greens is 80 per cent sand, 20 per cent peat. The pH value is 7.6. In preparing to seed the greens to Penncross

shouldn't we omit limestone altogether? We don't want to see the pH get too high. (Wisconsin)

**A**—I would reserve judgement on the decision to use (or not to use) limestone in the seedbed until "soil" tests are completed for Ca and Mg levels. The buffering capacity (ability to resist change due to added materials) of sand-peat mixtures tends to be low. We need Ca and Mg for good nutrition. With low buffering capacity rather large changes in soil pH can be produced with rather small additions of materials; pH values do not tell the whole story as

related to the need for limestone. Do you know if the sand you used carries calcium?

**Q**—Our club has an application blank from the Pennsylvania Turfgrass Council wherein golf clubs are invited to join as Sustaining Members at \$100 a year. Would you consider this to be a good investment? What might we expect in return for our membership? Isn't this something new? (Pennsylvania)

**A**—Yes this is something new, and I consider it a good investment. In return for \$100 a year, each Sustaining Member club will have the privilege of: 1) receiving periodic news releases in the Keynote, the official publication of the P.T.C.; 2) supporting scholarships at Penn State wherein top-notch students are rewarded for their scholastic proficiency in their efforts to become turfgrass managers; 3) compensating in part for years of free advice and service from the staff at Penn State; 4) insuring the continuance of high-quality programs of research, teaching and extension and the training of replacement golf course superintendents and 5) making possible another authentic Turfgrass Survey to assess the true scope and value of the turfgrass industry.

These are a few of the important elements that can be accomplished with money from a one-year Sustaining Membership in P.T.C. Already 15 commercial firms have indicated their support of the goals by joining the council. Several hundred golf course superintendents have dug into their pockets for individual memberships to support its progress.

**Q**—How can I increase the cold tolerance of my bermudagrass turf? I have mostly Tifgreen on the greens and tees and Tifway on the fairways. (Alabama)

**A**—Without getting into specific recommendations on quantities, there have been some excellent studies on N-P-K ratios with respect to cold tolerance and killing of grass. A 4-1-5 ratio resulted in increased winter hardiness in Texas. High levels of P reduced cold hardiness as did high levels of N. Potash seems to hold the key to improving cold tolerance; N and K in equal quantities, with low P, seems to be a sound policy.

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## Automatic irrigation

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Oaks' annual maintenance budget. Because the cost of labor continues to rise rapidly, this savings is expected to increase sizably over the next few years.

Through careful engineering, the automated system has significantly reduced North Oaks' actual sprinkling time. This not only means better utilization of water and lower pump costs, but reduced man hours as well. Previously Toupal required one man full-time around the clubhouse eight hours a day specifically for irrigation. He now uses one man 5 1/2 hours a day. In addition, the shorter irrigating schedule means more late night and early morning golf time. The old irrigating schedule called for watering from 7:30 p.m. until 8 or 9 a.m. With the new irrigation system, Toupal could wait until 9 p.m. to begin the evening's sprinkling, well after the last golfer had headed for the clubhouse. In addition, he had completed his cycles by 7:30 a.m., in time to run a quick syringe over the course before the first golfer had time to tee-up.

The end result for North Oaks has

been a much improved, more challenging course for its members. "Two seasons ago members were constantly on my back about the shoddy condition of the fairway edges and roughs," says Harry Olson, club manager. "We recently held a golf guest day and many of the people playing the course told me they felt we had the most enjoyable course in the Minneapolis-St. Paul area," he says. "I'm particularly pleased with the increased number of golfers we have in the mornings and late evenings."

To date the North Oaks system has been a success. "We are totally satisfied with the design, engineering and operation of the system," says Leo Mariani, greens chairman. "The few problems we have incurred have all been man-made."

Today a system similar to North Oaks' could cost \$120,000 including the entire clubhouse area and practice range, excluding pump stations and pressure mains. This is completely offset by the assurance that the system will operate with maximum efficiency giving the course increased playability with a minimum amount of labor and maintenance. □

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**Q**—We've heard the 1966 Pennsylvania Turfgrass Survey extolled as "the first authentic survey." Can you explain the basis for the "authenticity"?

(Hawaii)

**A**—The label "authentic" was given to the 1966 Pennsylvania Turfgrass Survey primarily because it was conducted by the Crop Reporting Service under the guidance of the Secretary of Agriculture Dr. Leland H. Bull. The Crop Reporting Service over a period of years has perfected a system of sampling various phases of agriculture wherein a high degree of accuracy has been achieved. The Turfgrass Survey was the fortunate recipient of this highly developed A.Q. (accuracy quotient). Nothing was estimated. Each published figure was derived from computerized calculations based on data obtained from accurate samplings.

We need more such authentic surveys in order to have unassailable facts and figures to give us support when we request needed tax support

for our coordinated programs.

**Q**—When we have soil tests run we get values for Ca and Mg with suggestions for rates of application to maintain certain levels. Can you explain briefly just why calcium and magnesium are important to us for growing superior turf? (Virginia)

**A**—Calcium deficiency promotes failures in the development of terminal buds and root tips. Magnesium deficiency creates loss of green color between the veins of leaves. Calcium builds strength and rigidity in cell walls and helps turf resist wear. It is important in the manufacture of proteins, in nitrogen up-take and in the enzyme systems. Magnesium is vital to enzyme systems and is the only mineral element on which the chlorophyll molecule is built. Chlorophyll is vital in energy conversion. Both elements help to maintain proper pH levels in the plant as well as in the soil, thus maintaining a correct chemical balance.

Calcium and magnesium are furnished in dolomitic limestone, an inexpensive material that is universally available on the market. □