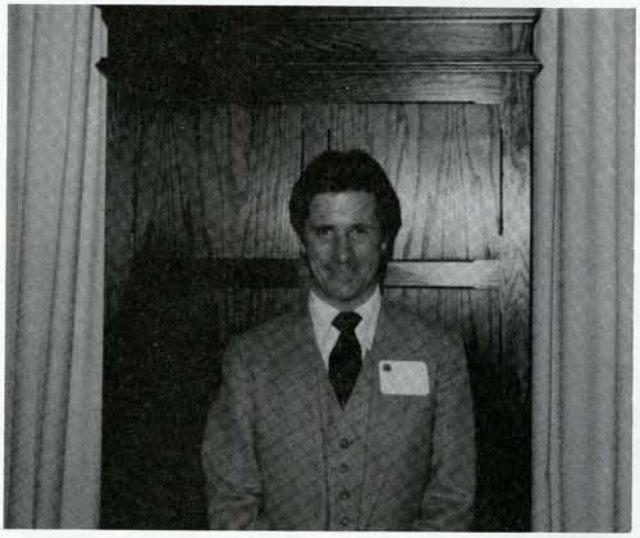
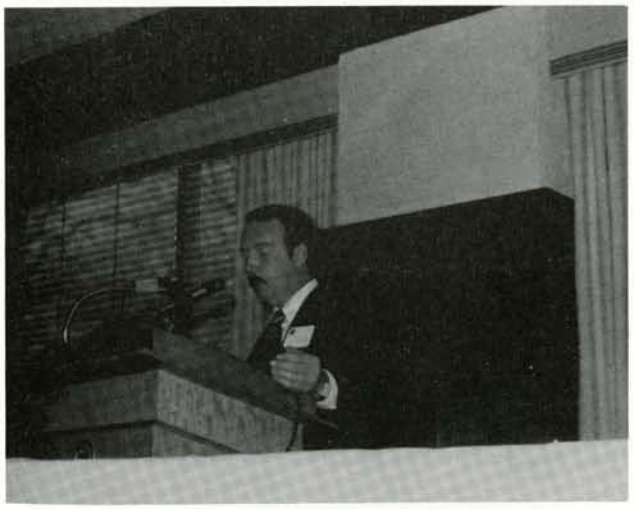
Pictures of the speakers from the Chicago District Golf Association Green Seminar held April 5th, 1983 at the Butterfield C.C.

Rees Jones, Golf Course Architect, the featured speaker on the CDGA Green Seminar.



Tom Wilcox, Professional, Sunset Ridge C.C. explained their program of re-shaping greens and re-contouring fairways at Sunset Ridge C.C.

Stanley Zontek, USGA Green Section, moderating the triplex mowing of fairways session.



**Bruce Williams, Bob O'Link Golf Club, describing his program of testing tri-plex mowing of fairways and related costs comparisons.**

**Oscar Miles, Butler National, explaining his program and costs of mowing fairways at Butler with tri-plex mowers.**

**Carl Hopphan, Aurora C.C., the moderator for the Turf Research Update with the University of Illinois.**

## THE VALUE OF GRADUATE STUDIES

Advanced or graduate training in any scientific area is a vital component of technological advancements. The biological and scientific complexities demand intensive training and detailed research. The graduate program is the thread that binds together the problems, studies, solutions and responses.

Graduate study offers intensive training in specific areas. Graduate research should be innovative and generally is based on problem solving.

The creative mind that responds to the current problems in turfgrass management offers us a better future. Preserving and improving our environment is an integral facet of the profession.

Graduate programs are based on recognizing a problem, determining methods of solution and arriving at satisfactory conclusions.

The research, preparation and defense of a thesis demands a soundly-based problem dealt with in a logical scientific manner.

Each graduate student is responsible not only to a graduate committee but has the resources and counsel of a group of professionals that represent a variety of disciplines.

The demands of a graduate program aid in the development of fertile minds and contribute to elevated levels of competence. The diversity of technology is well illustrated by the fact that there are many fields in which PhD degrees are granted at major universities.

A graduate program offers or provides the time for valuable inter-personal experience between staff and student. In most disciplines training for the Bachelor degree requires 4 years, the Masters, 2 years, and a PhD degree requires approximately three years — a nine year commitment for learning.

With an advanced degree, one is qualified to fill positions of teaching, research and/or extension as may occur in universitites, institutes, industries and general business.

Informed and dedicated leaders have made possible the high level of technology we now enjoy. We must continue to provide well-trained teachers and scientists for the future.

Seeking out and motivating bright minds and adequately supporting them during their years of training challenges the best of institutions and industry.

NOTE: This statement on graduate studies was written by Dr. W. H. Daniel, Purdue University and Musser Foundation Board Member. In it one may read the reasons why the Musser Foundatin is committed to helping finance exceptional students who are earning their advanced degrees. They are our FUTURE.

— Fred V. Grau

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## GET THE JUMP ON SPRING DISEASES WITH AN EARLY TREATMENT REGIME

Your turf survived the ravages of winter due to successful transitional management. But, is it prepared to handle the onslaught of spring diseases, namely leaf spot, melting-out and dollar spot?

"Unless you get a jump on spring diseases with early fungicide treatments, you may play a losing game called 'catch-up' the rest of the year," warns Joseph Niedbalski, TUCO plant health specialist, product/field development.

Your turf may appear vibrant, healthy and green now, but it's condition during summer — a period of environmental stress, intense disease pressure and heavy play — is what counts.

Once diseases gain the upper hand, you're forced to spray more frequently in a desperate attempt to halt their unrelenting spread. This 'catch-up' approach is costly, resulting in damaged turf, dissatisfied golfers and devastated superintendents.

One way to prevent disasters and minimize turf loss is to identify major disease problems now — before they occur. This approach allows you to implement a disease control program to effectively combat your specific problems.

"The key to controlling spring turf diseases is early fungicide treatments before diseases establish themselves," says Niedbalski. "Once established, diseases spread rapidly and are extremely difficult to control."

He recommends applying a turf fungicide such as Acti-dione RZ® or Acti-dione TGF® immediately after the first mowing. "Furthermore, early applications may serve to reduce the number of treatments required during summer."

An early spray program enables you to obtain the healthiest turf possible from Memorial Day through Labor Day when the bulk of golfers are on the course. "Strong, healthy turf is better able to resist disease epidemics than turf in a weakened condition," he states.

According to Niedbalski, a number of factors influence disease severity. "Some people assume a mild winter causes more disease activity in the spring. This isn't necessarily true," explains Niedbalski. "A mild winter may result in greater fungal inoculum density, however, disease severity depends on favorable environmental conditions. Temperature, humidity levels, amount of rainfall, course location and turfgrass species all affect disease activity."

Effective control of leaf spot (Helminthosporium species) demands an early treatment regime. Leaf spot overwinters in thatch and a large number of spores are produced during late fall, winter and spring months.

Spring rains splash these spores onto emerging leaf blades, causing lesions that are tan in the center and dark brown on the edge. As the disease progresses, the crown becomes infected and the plant may rot. If not treated, severe leaf pot infections, also known as melting-out, can wipe out large areas of turf. Conditions favoring the development of leaf spot include close cutting, excessive irrigation and a high level of nitrogen.

Regular, early applicatoins of Acti-dione RZ which contains an antibiotic — Anti-dione — and PCNB, create a fungistat barrier which helps keep diseases, such as leaf spot, from spreading. "Regular applications should be made at 14- to 21-day intervals. Disease severity may dictate a shortened interval of 7 to 10 days for at least 2 to 3 applications."

Dollar spot, an early fall disease, is also a problem in the late spring. Warm days and cool nights provide an ideal setting for the development of dollar spot, as does a low nitrogen level, dry soil and high humidity. Disease symptoms appear as light tan lesions with a reddish border on the leaf blade.

"To control dollar spot, apply Acti-dione TGF after first mowing in the spring," says Niedbalski. "After the first spray, follow a 7- to 10-day treatment schedule to mid-May for optimum control."

Disease-causing fungi are present year-round and are a constant threat to golf courses across the country. Many superintendents have discovered the most economical and effective approach to vigorous, healthy turf is a well-planned four-season disease management program.

By getting a jump on spring diseases with early fungicide applications, superintendents can maintain quality turf throughout peak play periods.

**The Upjohn Co.**

**Dr. David J. Wehner, Turfgrass Specialist at U. of I. discussing his program of research and trials at Urbana.**

**Dr. Hank Wilkenson, Plant Pathologist at U of I explaining his research program.**

**David Ward explaing his sand topdressing programs at Ravisloe C.C. and moderating the Sand Topdressing of Greens session.**

**Wayne Otto telling his eight years on sand topdressing of his greens at the Ozaukee C.C., Mequon, Wisconsin.**

**Warren Bidwell telling it the way it is: "There are too many locker room agronomists, and they should leave the driving to us." "Sand topdressing on greens is just a quick fix that may turn into a time bomb down the road."**

## NEWSLETTER ARTICLE ASSIGNMENTS "BULL SHEET"

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|---|---|
| June | John Stephenson |
| July | Joe Williamson |
| August | Dave Behrman |
| September | Mike Hart |
| October | Ken Goodman |

## CHARGING THE PRESSURE TANK

For those who have automatic pumping plants which incorporate a pressure tank, it is suggested that the air-water operating ratio be 60% air and 40% water. This ratio will permit the pressure pumps to operate within the desirable pressure limits.

One method to obtain the above 60/40 air-water ratio in the tank is to start the air compressor, **while the tank is still empty** and raise the air pressure to 60% of the system operating pressure, I.E. if the system operates at 100 lbs. then operate the air compressor until the pressure reaches 60 lbs. (100 x 60%), or if the system pressure is 130 lbs. then run the compressor until the air pressure in the tank reaches 130 x 60%, or 78 lbs. Once this pressure is established in the tank the pressure pump can be started and when the tank becomes 40% filled with water it will be found that the tank pressure has increased to the desired operating pressure of the system. In other words, the original volume of air in the tank has been compressed into 60% of its former volume and the pressure increases in direct proportion.

**C. E. (Scotty) Stewart**

## WELL WATER TEMPERATURE

A mistaken idea held by some is that well water, owing to its low temperature, will chill turf when discharged directly through a sprinkler and considerable sums of money have been needlessly spent on the construction of so called "tempering ponds" to hold and warm well water before its use for irrigating.

In the Chicago area we have three main sources of well water and the temperatures of the water delivered from them at ground level is as follows:

1. Where the well is about 400 feet in depth the water is obtained from the crevices in the Niagaran limestone formation and is produced at 53 deg. F. temperature.
2. Where the well is about 800 feet in depth the water is obtained from the St. Peter sandstone formation and is produced at 56 deg. F. temperature.
3. Where the well is about 1500 feet in depth the water is obtained from the Galesvile sandstone formation and is produced at 59 deg. F. temperature.

It will be noted that the water temperature increases in relation to the depth of the well.

Regardless of any of the above temperatures it will be found that when the water is discharged and properly broken up into droplets by a modern sprinkler that these droplets in falling through the air will almost even themselves up to the existing air temperature. It might be noted that the reverse action takes place with high temperature water.

**C. E. (Scotty) Stewart**