



# The Bull Sheet

Official Bulletin

Midwest Association of Golf Course Superintendents



DR. DANIEL  
Purdue University

## NEXT MEETING

TUESDAY, SEPTEMBER 18, 1962  
RACINE COUNTRY CLUB  
RACINE, WISCONSIN

*Field Day at Warren's  
Turf Nursery - Thursday,  
September 6th - 2:00 P.M.*

THE BULL SHEET, official publication of THE  
MIDWEST ASSOCIATION OF GOLF COURSE  
SUPERINTENDENTS.

TED WOHRLE, *Editor*,  
8700 So. Western Avenue  
Chicago 20, Illinois

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PRESIDENT'S MESSAGE

Sometimes situations do not develop to the conclusions that we want them to or expect them to. After repeated experiences of this type, one can become frustrated. To cite an example other than the most common and well known one, I offer the following: A host serves scotch and 7-up to his guest who prefers scotch and soda. There's quite a difference.

I have stated this simply as an introduction to the following information which has become very significant to me. "The chairman of an organization who is at the same time a member in full standing can vote on any motion. He can even speak on any motion by asking someone to preside while he takes the floor. However, a wise chairman does not vote when his vote would not be decisive because as the umpire of the contest between the proponents and the opponents his task is easier when he refuses to take sides in the controversy." I hope that I have used this information wisely.

Post script to last month's message:

. . . . . on the golf course at twilight I saw two hens, six young ones and one rooster - a very nice family.

. . . . . five Canadian Honkers regally marching over the crest of the hill on #16 fairway — a very majestic procession.

Donald Gerber, President

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LAST MONTH'S MEETING

On Tuesday, August 7, 1962 we met for an afternoon of golf and fellowship. How did you like those C-15 greens? Terrific weren't they? Now you can see why it is considered the best putting turf for the Chicago area. They were very uniform and weed free. There was no *Poa annua* to speak of either.

We would like to thank the Illinois Lawn Equipment people for supplying the refreshments out on the course. It certainly was appreciated.

Later in the evening we had Dr. Mike Britton speak to us about our disease problems. Here in brief is what he had to say;

There are several types of control. You can have complete eradication of the disease or you can arrest the disease. He is not sold on the Broad Spectrum type fungicides because there is always a *best* material for any given disease.

These are some of the combinations in use today. Thiram - as a base, Mercury (no special type), and Acti-Dione — as an anti-biotic. These are good for the general control of Brown Patch and Dollar Spot.

Next we have the Hot Weather Diseases. Pythium and Helminthosporium (Root and Crown Rot). Along with the aforementioned chemicals it is recommended that Zineb (Parzate) be used. An indication for the use of Parzate is the blueish color similar to wilt. This is caused by the fact that the roots are almost nonexistent. The grass often dies in a short time if left untreated. When this disease is noted it is suggested that Parzate be used at the rates of 6-8 ozs. per 1000 sq. ft. If possible it may be necessary to aerify first and increase the rate to one pound per 1000 sq. ft. Follow this up with 4 ozs. per 1000 in two to four days. In both cases it is advisable to syringe this chemical down into the thatch where it can do the most good.

A good preventative spray program consists of 3 ozs. of Thiram, the recommended rate of Mercury and 3 ozs. of Parzate. If this program is followed it may be necessary to follow this up with a straight application of Parzate a few days later.

This root and crown rot seems to be more severe in traffic areas; the injury makes the grass more susceptible.

Ortho Lawn and Turf Fungicide, Kromad and Dyrene were also mentioned as substitutes.

A very strong suggestion was made by Dr. Britton to the effect that if you are successful with your present spray program for heavens sake don't change it. After all, the results are what count.

During the Business meeting Bob Williams and Ray Gerber were nominated and elected to the National Advisory Committee representing the Midwest Chapter.

Ted Woehrle was elected as Delegate to the National Convention with Ed Stewart as alternate delegate.

## THE UNIVERSITY OF ILLINOIS TURFGRASS FIELD DAY WILL BE HELD ON SEPTEMBER 26, 1962

The day is planned in three parts:

10:00 A.M. — The first stop at the 9 hole Campus Golf Course will be presented by Dr. Fred Slife and will be concerned with weed problems.

11:00 A.M. — The second stop will be at the University of Illinois 18 hole golf course at Savoy, Illinois. It will be under the supervision of Dr. Michael Britton and turf disease problems will be discussed.

1:30 P.M. — The third stop will be at the Horticulture Farm. The theme at this location will be general turf management. Mr. Jack Butler will be in charge of this area.

This will be a full day. You are urged to be at the first stop by 9:30 A.M. so that the first session may start promptly at 10:00 A.M.

Lunch will be on your own.

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### ANNUAL FALL CLINIC

Warren Bidwell, Superintendent of Olympia Fields Country Club and Chairman of our Education Committee informs us that the Fall Clinic will be held once again at Olympia Fields on the last Tuesday and Wednesday of November. He is planning a new and exciting program for us.

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### FALL DINNER DANCE

We were informed that our Annual Fall Dinner Dance will be held at the River Forest Country Club on Saturday, October 13, 1962. Superintendent, Ed Stewart and his Wife will host this affair.

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### WARREN'S FIELD DAY

We recently received an invitation to attend a conducted tour of the Warren's Turf Nursery on September 6th. This is on a Thursday at 2:00 P.M.

Ben is anxious to show us some of the research that he has been doing in the field of disease control, plant selection and breeding. He also has a green house in which he carries on many experiments in the winter.

Just recently he held a press conference where he showed a new short stemmed Bluegrass which will soon be marketed. The entire day should be a must on your educational itinerary for the year.

This is one of the greatest advances in our profession for a long time.

The turf nursery is located at 8400 West 111th Street in Palos Park, Ill.

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Mr. and Mrs. Bernard Kazich (Whitey) are the proud parents of a new son, Bernard Jr., born July 27, 1962. Whitey is the Superintendent of the Riverside Country Club.

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Our deepest felt sympathies are extended to Amos Lapp and Kenneth Lapp and their families for the loss of Mrs. Amos Lapp. She left this veil of tears on Saturday, August the 4th.

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Paul W. Burdett is in the hospital for a checkup. We hope that it isn't anything serious and that he gets back on the job real soon.

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### UREA-FORM FOR TURF - Continued

*By Dr. Fred V. Grau*

Urea-forms may fail to produce good results if:

1. The soil is devoid of bacteria.
2. Ammonium nitrate has been used continuously for several years.
3. The soil has been fumigated or sterilized.
4. Soil is waterlogged.
5. There is an excessive accumulation of undecomposed organic residues in the turf and in the soil.

Urea-forms are used to supply 50 to 75 percent of the N in quality mixed fertilizers. Urea-forms are used to great advantage in seedbeds when mixed intimately with the soil to a depth of several inches. Eight (8) pounds per thousand square feet represents about a year's supply of N and it is safe to use. Up to twenty (20) pounds of N were used in Iowa in a seedbed experiment with excellent results.

Urea-forms give increasingly better results with continued use. The soil microbes will become "educated" (populations built up). Equilibrium is reached in second or third year. (5-6 in fruit in Mediterranean).

Urea-forms release early all of their N in contrast to 30 to 50 percent in the better natural organics.

Urea-forms produce less top growth than quickly available sources of N.

Urea-forms send grass into winter in a firm hardened condition, never soft and lush and susceptible to winter damage.

Urea-forms with 38 per cent N contains No filler. The other 62 per cent is carbon, hydrogen, oxygen without which the nitrogen would be usefull.

Urea-form have been on the market for 10 years. No one knows how to improve them, so don't look for any great changes in urea-form for turf.

Urea-forms reduce chances of error — release labor for other jobs, reduce cost per 1,000 sq. ft. of supplying N according to needs of plants.

Urea-form users say that they do not have the turf troubles they used to have. They say that less water is needed and at wider intervals. Turf is firmer with less disease. They get about the same amount of clippings each time they mow.

Burton reported interesting findings on nematodes with urea-forms.

Urea-forms are being used under roses, in flower and vegetable gardens and in horticultural work for trees and shrubs. Now it is being tested on farm crops -- cotton, lettuce, celery, and sugar beets -- results to date are very favorable.

Urea-forms are tailored to turf - -

This discussion has been on the basis of broader education with respect to urea-forms. Missing has been information on points of difference between materials produced by different methods of manufacture. It is

important that these differences be recognized even though they shall not be discussed here. Users are encouraged to make side by side tests to determine suitability to conditions.

— EDITORIAL —

This past summer many of our Superintendents in the Chicago area have started the use of increased amounts of Potash K<sub>2</sub>O. The theory in their thinking has been that it helps to fight disease as well as strengthen the plant structure. Additional applications are being made in conjunction with fungicide treatments at the rate of one pound of Potassium Sulfate or Muriate of Potash per green. This doesn't sound like much but if you figure that most golf courses spray their greens with fungicides at an average of 17 times per year this would mean about 8½ pounds of actual K<sub>2</sub>O per green per year, or 1½ pounds per 1000 sq. ft. per year. This in conjunction with the normal applications of Potash in the regular fertilizer program will bring the annual amount to about five pounds.

This is fine for greens and tees where the clippings are removed but in most cases it would be an excessive amount for the fairways and only promote the clover population. Of course if soil samples indicate the

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need for this amount of Potash you should apply this amount.

I would like to give a resume of an article printed in the U.S.G.A. Journal and Turf Management in the February, 1962 issue. The article was written by Mr Charles E. Corley, Agronomist, Southwestern Region, U.S.G.A. Green Section. The title of his article was, "Potassium, the Mysterious Macro-Nutrient".

Through scientific investigations and practical observations we have learned that plant uptake of potassium is often higher than any other mineral and that a deficiency of Potassium will give a marked decrease in growth and if the Potassium level is low enough, even death of the plant may occur.

**FUNCTION OF POTASSIUM.** It is pointed out in this article some of the functions of Potassium are as follows: (1) Synthesis of carbohydrates (2) translocation of carbohydrates (3) reduction of nitrates and synthesis of proteins particularly in meristematic tissues and (4) normal cell division. It is suggested that Potassium plays a part in maintaining turgor in plant cells as well as increasing disease resistance.

Most of the Potassium exists in the plant in the form of inorganic salts, but does not enter into the structural characteristics of the plant.

Usually when plants are growing rapidly, protein synthesis must necessarily be high. If carbohydrates

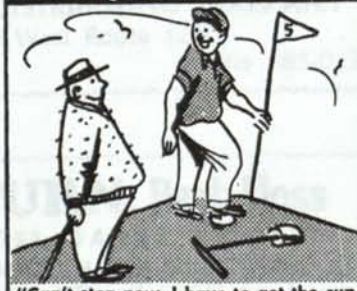
are used up in protein synthesis when high amounts of available Nitrogen are present, stems and plant tissue may not be stiff even though there is an abundant amount of Potassium present in the plant. However, if the Potassium level is low or deficient then carbohydrate production cannot proceed and therefore utilization of Nitrates can be cut to a minimum. The importance here then is that little or no response to nitrate fertilization can definitely be associated with Potassium levels or uptake.

It is believed that Potassium plays an important part in photosynthesis, however, no real direct evidence showing the exact nature of this function has been uncovered. It is believed that Potassium increase the uptake of CO<sub>2</sub> by the Chlorophyll molecule. This, of course, would increase the amount of photosynthate. If you have ever noticed the greening of turf-grass after additions of Potassium you might explain it by the next statement, "it is also thought that Potassium perhaps by way of activating enzymes plays a definite role in the manufacture of Chlorophyll molecules."

#### SOME FACTORS AFFECTING POTASSIUM UPTAKE.

It has been known for some time that soil aeration or the amount of Oxygen present in a soil is very important upon Potassium absorption and uptake. It has been shown that lack of Oxygen presents a greater inhibitory effect upon the uptake of Potassium than

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any other factor. This aeration factor does not affect the Potassium but produces its effect upon the plant root. As we have pointed out previously, there is no definite evidence to point out that in all cases it is a lack of Oxygen which causes this affect or whether it is toxic build up or concentration of Carbon Dioxide.

The factors of aeration, lack of Oxygen or build up of CO<sub>2</sub> becomes more important during July and August. This is when aeration produces its greatest affects not only on these factors, but also upon water penetration. You can now see why it becomes extremely important that we carefully observe our aeration principles during this period of time. Another important

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factor that is often crippling during this period is that we tend to keep our soil saturated with water. This not only excludes Oxygen from the soil, but does not allow the Carbon Dioxide to have free exchange with the atmosphere. This could explain the short roots during this critical period of the season.

Potassium applications should be made during the cooler periods of the year with only light applications being made during June, July and August. Large applications of Muriate of Potash or Potassium Sulfate can result in severe burning during these months. Therefore any applications of these compounds made during the hot weather should be very low and particularly when it is in combination with reasonably high levels of Nitrogen.

Ted Woehrle

**FIELD DAY — PURDUE UNIVERSITY  
SEPTEMBER 10 AND 11**

Dr. William H. Daniel of the Agronomy Department of Purdue University has planned another fine Field Day on September 10 and 11, in conjunction with the Midwest Regional Turf Foundation. He will show us some work done on plant selection and some new control for lawn weeds.

**PETE VOYKIN HAS HOLE IN ONE**

On Saturday, July 14, Pete had a Hole in One at Idelwild Country Club on the 9th hole. It is a sporty 135 yd. par 3.

Pete has been playing fine golf all year. To date he has won most of our low gross events at our monthly meetings. Last month at Midwest Country Club he shot a 72. Maybe we stand a better chance this year of winning the National Tournament.

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