Tee to Green

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Meeting Notice MGCSA

Date:	Thursday, July 15, 1971
Place:	Winged Foot Golf Club
Golf:	12 noon "Superintendents Championship" There will be golf championship flights for all MGCSA members A, B, C and Honorary For details contact Al Tretera 472-1467
Cocktails:	6 PM
Dinner:	7 PM
Program:	To be announced along with Awarding of all Golf Championship prizes
Host:	Edward C. Horton

Edward "Ted" Horton is a graduate of the Turf Management course at Stockbridge School of Agriculture at the University of Massachusetts, in Amherst, Massachusetts. While at Stockbridge, Ted edited the "Turf Bulletin" and "Turf Clippings." He came to the Metropolitan New York area as placement student with Sherwood Moore at Winged Foot. After graduation he put in a year as Assistant to Sherwood and subsequently became Superintendent. In his fourth year as Superintendent at Winged Foot, Ted has been an enthusiastic member of the MGCSA and has served as Secretary for two years. He has been a voting and advisory committee delegate to the GCSAA national convention and is presently serving on a Recreation Advisory Board Committee in the Town of Harrison. Ted and his wife, Nancy, live in Harrison with their two boys, Timmy and Chris, and English Bulldog, Alfred.

Directions: Coming from NYC and Lower Westchester County take Interstate 95 North to Exit 10S, Fenimore Rd. Take left onto Fenimore Rd. entrance ¼ mile on right or Hutchinson River parkway to Mamaroneck Rd. exit, turn right (south) 1 mile to entrance on right or South on Interstate 95 to Exit 10, Mamaroneck Avenue, to Mamaroneck. Just before turn into the center of town, make right onto Old White Plains Rd. Follow Old White Plains Rd. ½ mile to entrance on left.

Coming Events:

July 13	Golf Club at Aspetuck (Conn. GCSA)
*July 19-25	Westchester Classic*

National Superintendent cards along with Metropolitan Superintendent cards in all classes will be honored in exchange for one ticket each day of the Westchester Classic. Please check in at Will-Call-Tent by clubhouse for your ticket.

July 20	Annual Picnic, Cider Mill Grove NJGCSA
August 2	New Haven C. C. (Conn. GCSA)
August 15-19	American Society of Agronomy Meeting NYC
August 24	MGCSA Equipment and Supplies Field Day Fenway Golf Club
August 25	Rhode Island Field Day
Sept. 14	Waccabuc C. C.
October 5	Elmwood C. C. Superintendents Invitational
November	Open Date
Dec. 17	Christmas Party, Hampshire Country Club

Membership:

The following new members have been approved by the executive board: Dominic De Marzo, Chairman.

Anthony Urbanowicz	Class A	Lake Isle Country Club
Ralph Castelli	Class B	Innis Arden C. C.
Louis Peluso	Class C	National Chemsearch Corp.
James Smith	Class C	Tuco Products Co.
Michael Mattwell	Class C	M. O. Mattwell Inc.
Ray Henshaw	Class C	Texas Refinery Corp.

Classification change

Aniello Penirelli — Class B to A

MGCSA News:

The June meeting at St. Andrews certainly was enjoyed by all who attended. We are fortunate to be able to play on the oldest course in the United States. It was interesting to read the old plaques and look at the old books displayed in the clubhouse. As usual Roger had his little boy with him hitting the golf ball his average 275 yards.

We hear Bob Osterman had a hole in one at the last Conn. GCSA meeting. Congratulations, Bob. It certainly encourages high handicap players like Harry and Garry.

Hyperodes has shown its face again, possibly a little later this year because of the cool Spring. If you have areas that seem a little off color and stressed when you think it shouldn't be – chances are hyperodes are present.

Irrigation water supplies are being tested again with little rain in June. The MIGS maintenance system should be in full gear.

We are moving along fine for the up and coming Equipment Field Day. Each member can help by contacting any person who is interested in all types of turf maintenance equipment, supplies and irrigation and asking them to enjoy the day with you. Each member also should make it a point to support the field day by being there.

Tee to Green

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Pat Lucas	*Editorial Staff*
Ron Boydston	*Advertizing Manager*

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PRESIDENT'S MESSAGE

Gentlemen:

I am writing this message to inform you of a new column that will begin in the next issue of *The Tee to Green.* Please, take advantage of this opportunity to learn all you can about the decisions that must be made by your board and how we go about it.

The new column will be titled, "MGCSA Questions And Answers." In this column will be printed any questions sent in by members of this association in regards to accomplishments, things to be accomplished, how we go about accepting a new member, etc., etc., etc. Along with each question will be printed an answer from your governing board.

Through this column we are hoping to not only inform those members who are interested enough to write, but to help close that ever present communications gap. Gentlemen, please write. Remember, "He who asks a question is uninformed for a short time, but he who does not is uninformed forever."

Please address your questions to any member of the board. Their addresses are printed in each issue of *The Tee to Green.*

Everett C. Wood
President, MGCSA

MEMORIAM

We extend our sincere sympathy to Norman W. Kramer's family on his sudden death on June 3rd of a heart attack.

Our past President of the National had been active in the National since 1951 and was active in many local associations in the Mid-West. His leadership will be missed.

For Sale: "2" Galvanized pipe
Contact: Harry Nichol – 592-6608

Metropolitan Golf Course Superintendents Association

present

ANNUAL TURFGRASS SUPPLIES

IRRIGATION and

EQUIPMENT FIELD DAY

TUESDAY, AUGUST 24, 1971

1:30 P.M. – 5:30 P.M.

FENWAY GOLF CLUB

Old Mamaroneck Road

White Plains, New York

All interested persons are welcome to view displays and demonstrations under actual field conditions

RAIN DATE WILL BE AUGUST 25th, 1971

Pond Weed Control

Legal Responsibilities – A ruling of the State Water Pollution Board states that before any chemicals are used for the control or elimination of aquatic vegetation in any waters of the state written permission to do so must be obtained from the permit issuing office who in Westchester County is the Health Department, County Office Building, White Plains. In applying for a permit, definite information must be supplied regarding the waters to be treated, the volume, the chemical and the amount and procedure to be used.

The above regulations apply to all waters excepting waters which are entirely confined to the premises, that is, they have no outlet leaving the owned lands of the individual.

RESEARCH REVIEW
by Wayne C. Morgan

"NITROGEN NUTRITION OF TURFGRASSES"

One of our nations authorities on the nutritional needs of turfgrasses is Dr. R. E. Schmidt of Virginia Polytechnic Institute. His information with the above title was presented at the First International Turfgrass Research Conference at Harrogate, England, July 1969 and published in a proceedings of these talks.

In formulating a nitrogen nutrition program for turfgrasses, all environmental phenomena must be considered. For example, bermudagrasses do well in the semi-tropics and bentgrasses are adapted to the temperate regions. This discussion will be limited to the general observations of nitrogen nutrition of those grasses that are mainly used within the temperate region (the cool-season grasses).

Ecological factors, both natural and imposed, influence chemical reactions within a plant. Symptoms of bad nitrogen fertilization management may be noticeable only after the turf has undergone stresses. It has been observed on the author's research plots that **Pao Pratensis** (Kentucky bluegrass) L. recovery from summer drought was influenced by timing of nitrogen fertilization. Plots receiving 6 lb. nitrogen per 100 sq. ft. were much slower to recover when 2/3 of the nitrogen was applied in the spring than when 2/3 was applied in the fall.

Normally, under soil conditions, nitrate is the principal source of nitrogen utilized by higher plants. In order for nitrates to be reduced, enzymatic reactions must occur. Thus, nitrogen and carbohydrate metabolism are interacting. Loss of energy appears to be especially true with high nitrogen and warm temperatures.

Both nitrogen assimilation and carbohydrate metabolism are influenced by environmental factors such as moisture, pH, light, temperature, and nitrogen concentration.

Soil acidity influences nitrogen metabolism in several ways; for example nitrate uptake increases with pH to about pH 6, then decreases with further pH increase.

Nitrogen assimilation is dependent upon the carbohydrate reserves. Carbohydrates also furnish the substrate for respiratory release of energy.

The rate of nitrate and ammonium ion absorption has been shown to increase with their external concentrations up to a certain point. Nitrogen-starved plants high in carbohydrates absorb nitrate more rapidly than those grasses previously fertilized with nitrogen. The rate of nitrogen assimilation in the plant may act in regulating nitrogen absorption.

Increases in temperature generally increase nitrate uptake. Temperature also affect photosynthesis and respiration. When temperature is increased, CO_2 fixation increases to a point (then decreases with further temperature rise): respiration is stimulated, thus enhancing nitrogen assimilation and carbohydrate utilization. If respiration increases so that carbohydrate reserves are used faster than CO_2 can be fixed, there will be less subsequent release of energy. This is what appears to limit cool-season grass growth when large amounts of nitrogen are made available during periods of high temperature.

Cool-season grasses preconditioned to maintain high carbohydrate content are better able to stand heat stresses. Bentgrass growth for 45 days at 88 ℉ was seriously injured with heavy nitrogen fertilization but bentgrass that was preconditioned for 45 days at 76 ℉ and 56 ℉ did not show injury when switched to 88 ℉ and fertilized with heavy nitrogen.

In formulating a nitrogen nutritional program one must consider seasonal root and top growth development, carbohydrate accumulation, and extreme temperature stresses. Bentgrass under almost uniform nitrogen supply has been shown to yield the most foliage in early spring followed by a sharp decline. In late spring, foliage yields increased again, but then declined as hot weather persisted in July and August. Top growth did not increase with the approach of lower temperatures in the fall, but in fact continued to decrease, with the lowest yields given in October.

Underground seasonal growth of cool-season grasses differs somewhat from the top growth. Roots and rhizomes of Kentucky bluegrass increased from December to May with much less root development thereafter.

Results obtained in Virginia showed that carbohydrates of bentgrasses increased from fall to spring and then decreased at about the time that the flush of spring top growth occurred. Carbohydrates remained low during the summer months. High nitrogen fertility generally increased top growth and decreased root development and carbohydrates. However, late fall and winter nitrogen applications applied to cool-season grasses have increased roots and rhizomes. The increased underground plant development appears to be contingent upon the increase of chlorophyll associated with increased nitrogen fertilization and sufficient mild days during the late fall and winter to favor photosynthesis. Winter nitrogen applications on bentgrass increased carbohydrate reserves and root growth because the associated low respiration enhanced net photosynthesis.

Root growth of cool-season grasses is favored over foliage growth at a low temperature. This combined with a high carbohydrate reserve and an adequate nitrogen supply, enhances root development and should enable plants to have more vigor during summer stress. On the other hand, nitrogen application immediately prior to or during the spring flush growth increases top growth at the apparent expense of root development and carbohydrate reserves. When excessive nitrogen is made available to the cool-season grass during periods conducive to rapid top growth, it stimulates respiration and lowers carbohydrate reserves, and thus offsets the root development, initiated by late fall and winter fertilization.

It appears that for best year-round turfgrass vigor, nitrogen fertilization should be programmed to conserve carbohydrates and enhance root development. Seasonal stresses and management practices within an ecological area must be considered in formulation of a nitrogen nutritional program.

Divot News, Southern California GCSA

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