

FEBRUARY, 1966
VOL. 19, NO. 8



The Bull Sheet

Official Bulletin

Midwest Association of Golf Course Superintendents

**Midwest
Regional
Turf
Conference**
March 7-8-9

MARCH MEETING
ELMHURST COUNTRY CLUB

GOLF WE HOPE

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

DOUG JABAAY, Editor
P. O. Box 305
Naperville, Ill. 60540

OFFICERS

President - Adolph Bertucci
1st Vice-President - Dudley Smith
2nd Vice-President - Walter Fuchs
Secretary & Treasurer - Roy Nelson

DIRECTORS

Edward Braunsky Gerald Dearie, Jr.
E. F. Johnson Douglas Jabaay
Thomas Burrows Edwin Wollenberg



**DOUG JABAAY, Superintendent
Cress Creek Country Club**

The President's Message

January and Winter have arrived in full force with the season's coldest temperatures and heaviest snow-falls. These are the days I envy our counterparts in the Sunny South and West.

A very big vote of thanks to Doug Jabaay and Cress Creek Country Club for being such gracious hosts at our meeting last month. The food and accommodations were enjoyed by all. A special personal thank you to the new chairmen of the committees for this year, each man accepted with enthusiasm. I'm sure we'll all have a great "1966".

In talking to most of the Midwest members, three subjects came to the top . . . getting all the equipment repaired and ready to go, the big National Convention in Kansas City and, finally, vacations. Many of our members will attend the convention and then go on to sunnier climates for a well-earned rest and vacation. All indications are that we will have a record total attendance, and I hope to see a record turnout from the Midwest. When you are there, be sure to stop by the Midwest Association's Hospitality Room.

See you in Kansas City!

Adolph Bertucci
President

PATRONIZE

OUR

ADVERTISERS

JANUARY MEETING

Cress Creek Country Club and Superintendent Doug Jabaay were host to our members on January 4th. This was an afternoon meeting which was fairly well attended. Eighty-six were there for the business section and sixty-five for dinner. Again the meal that was prepared by Mr. Ben Waskow's Staff was something that a man on a diet was in trouble with. The chicken and beef that was served family style with home made bread, left you wondering how you made room for everything. The hors-d'oeuvres were donated through the courtesy of M. Harold Moser, the owner of Cress Creek Country Club. Three cheers to the management and staff of this fine club for giving us the use of their facilities to start the new year off with a bang.

By this time the people that left early found out about the films that were shown after dinner. Bobby Jones Beats Par was the first one and the Indianapolis "500" race high lights was the second sound film shown. The education committee wishes to thank Doug Jabaay for obtaining these films for this meeting. Again this committee would like to know what you would like to hear about at our educational portion of our meeting. Make your wants known. We know we can't please everyone but we are sure going to try, so tell us your likes and dislikes so that we can get the things that will be interesting to all of the members.

Notes from our Secretary-Treasurer Nelson on our January meeting show under new business a letter from Joe Doan was read asking for Superintendent assistance in comments concerning new departments for the "Golf Superintendent" magazine. The financial statement for 1965 was discussed and Roy Nelson made clarification of the Fall Clinic and the Bull Sheet operation.

March 15 at the Elmhurst Country Club was announced as our first seasonal meeting. Walter Fuchs, chairman of our Arrangements Committee, has asked for volunteer clubs to complete a subsequent schedule for the year.

The Benevolence Committee Chairman, Doug Jabaay asked for notification to the committee concerning any member or member's immediate family hospitalized. The committee consists of Peter Bild (Northside), Roy Nelson (Southside) and Doug Jabaay (Westside).

Our Honorary and Complimentary memberships were continued for 1966, with the additions of Carol McCue, John Chovanec, Charles Bartlett, Heimie Martin and Tommy Kouzmanoff.

Joseph Dinelli was appointed by President Bertucci as Superintendent Chairman of the Flower Show booth of the Illinois Turf Foundation at McCormick Place. Bob Williams made an announcement concerning a Horticulture Short Course to be held at Wilson Junior College. Further information can be obtained from him.

MIDWEST REGIONAL TURF CONFERENCE

From the office of Dr. W. H. Daniel, Program Coordinator, Department of Agronomy, Purdue University, Lafayette, Indiana comes the information that "Turf Management for '66" is the theme of the conference coming up this March 7-9, 1966. The general turf and golf course sections are again in evidence as well as a new section called industrial lawns. It's quite evident that the Midwest Regional Turf Foundation is keeping step with the times by incorporating an area that is growing in the field of turf management.

Parking is no longer a problem with the new garage across the street from the Memorial Union. If you were there last year some of you can speak from experience. Again each one should make his own reservation early if a choice of rooms is wanted. Pre-registration is encouraged, if you find that your plans have changed a refund will be made if advised before the program begins.

The program for this conference starts Monday, March 7.

A.M.

9:30 - on Registration - early by mail preferred.

9:30 - 11:00 Greenhouse tour - by bus for those interested.

12:00 Speakers Luncheon.

P.M.

1:15 Welcome - Eric Sharvelle.

- 1:30 Does Your Turf Use Everything You Feed It? - Roy Goss.
- 2:15 The Anatomy of Turf Plants - M. H. Ferguson.
- 3:10 Plant Metabolism - Coleman Ward
- 3:50 British and American Turfgrass Diseases - Noel Jackson.
- 4:30 Film.
- 6:30 Banquet - Glee Club.

Tuesday, March 8

General Turf

- Turf Fertilizer - From Plant to Plant - H. Lucks.
- Northwestern Turf Research - R. Goss.
- Planning the St. Louis Stadium Turf - R. Freeborg.
- Serving Metropolitan Turf Needs - S. Frazier.
- Irrigation for General Turf - R. Rugar.

Sod Growing and Development

- Large Area Sterilization - D. Habenicht.
- Sod Grower's Associations Review and Development R. Warren.
- Pre-emerge Weed Control - W. H. Daniel.
- Comments on So. Nur. and Grasses - C. Ward.
- Special Equipment and Its Performance - Open Discussion - S. Frazier.
- Fast Seeding & Mulching - R. Stamm.
- After Grown - Then What with Sod ???

Golf Courses

- A Novel Estate Golf Course - R. Freeborg.
- Manicuring Turf - 3rd report - N. Kramer.
- Replacing Weeds - 2nd report - C. Clemans.
- Prep. for a Nat. Tournament - E. Schneider.
- Pre-Emerge Weed Control - W. H. Daniel.
- Building New Golf Courses - Pete Dye.
- Evapo-Transpiration & Weather - M. Ferguson.
- Pipe for Irrigation Systems - R. Stoltz.
- Design & Econ. Comp. of Turf Systems - R. Abernathy.
- Using Autom. System on Need - D. Wright.
- Using Autom. System Daily - R. Craig.
- Automatic Irrigation - Now What? - J. Holmes.

Wednesday, March 9

Industrial Lawns

- Beauty for Industry - C. Colvert.
- Maintenance by Contract - R. Duke.
- Implications of Roadside Beautification - V. Coers.
- A Lawn Program that Works - L. Bowers.
- Growing Turf on Sand - O. Redenbacher.
- Turf Questions - Roy Goss, W. H. Daniel.

Golf Courses

- Research in Spraying - H. Watkins.
- Bluegrass Research - T. Riordan.
- Sod webworm - Biology & Control - D. Schuder.
- The Problems of People - W. L. Nelson.
- Recognition & Control of Turf Dis. - N. Jackson.
- Soil Warming - 3rd Report - J. Barrett.
- Materials & Prices for 1966 ??

TURF TROUBLES

try our line of tested, trusted treatments for finest turf!

- FUNGICIDES
- HERBICIDES
- INSECTICIDES
- LIQUID & SOLUBLE FERTILIZERS
- WETTING AGENTS

write for our FREE 25th Anniversary Catalog

ALFCO ROKEBY CO., INC.

Marietta, Ohio • P. O. Box 267 • phone 373-1394



TORONTO C-15 SOD and STOLONS

(Grown on sterilized soil with seedheads removed)

Merion and Kentucky Bluegrasses

SURE-GRO Plant Foods	}	12-6-6 Organic Base
		12-6-6 16-8-8
		10-6-4 5-10-5
		10-10-10 10-3-7

H. & E. Sod Nursery, Inc.

4301 W. Flossmoor Rd.

SY camore 8-2210

Tinley Park, Ill.

PAUL E. BURDETT

Seed - Fertilizers & Golf Course Supplies



SOLE DISTRIBUTORS
OF
AGRICO COUNTRY CLUB

12 - 4 - 8
(50% Organic Nitrogen)

10 - 6 - 4
(25% Organic Nitrogen)

16 - 8 - 8

Also
Hydraulic Feeders

Rainbird & Nelson Sprinklers and Valves
Myers Pumps - Johns Manville Pipes
E. I. DU PONT & CHIPMAN CHEMICALS

P. O. Box 241, Lombard, Illinois — 629-1123
Jim 629-0223

Take advantage of the most
experienced name in golf course

IRRIGATION SINCE 1925

Call —

MILLER SPRINKLING SYSTEMS

DIVISION OF A. J. MILLER, INC.

650 Roosevelt Rd. Ste. 213
Glen Ellyn, Illinois 60137
A/C 312-HO 9-8730

1320 N. Campbell Road
Royal Oak, Michigan 48067
A/C 313-542-8400

MILORGANITE

USED AND PREFERRED BY
GOLF COURSES EVERYWHERE

ASPHALT DRIVEWAYS - PARKING LOTS - ETC.

"Golf Course Work a Specialty"

LEMONT PAVING CO.

(RAY MURPHY TRUCKING)

115th & Archer Ave. (Rt. 4-A) — Lemont, Illinois
RAY MURPHY CL earwater 7-6701

PLANT NUTRIENT SUMMARY

W. D. Haven

International Minerals & Chemical Corp.

The Elements

Of the 16 plant food elements known to be necessary for the healthy growth and development of plants, 3 usually come from air and water, and 13 usually come from the soil.

Carbon, hydrogen, and oxygen are normally obtained by plants from water and air, and are seldom a limiting factor in plant growth if water is available.

The remaining 13 are divided into three groups according to the quantities plants use in their normal growth processes.

Nitrogen, phosphorous, and potassium are needed in the greatest amount, are most often limiting, and are therefore called major nutrient elements. These three major elements, carried in various types of materials, form the basis of fertilizer formulations in general.

Calcium, magnesium, and sulfur, as a group, are needed by plants in quantities somewhat less than the major elements and are called secondary nutrients. Until relatively recently, the concern for these elements generally was not very great because they were not often limiting to plant growth. These elements were often in the materials that carried the major nutrient elements as impurities and were supplied in adequate quantities when applications of the major elements were made. As the technology of fertilizer manufacture has progressed and the drive for higher quality, higher analysis, more refined materials, has succeeded, the amounts of secondary elements supplied as impurities in major element carriers has become less. This fact, combined with the higher quality of turf demanded which intensifies management, makes it necessary to consider the secondary plant food elements separately from the major elements.

A developing deficiency of the secondary elements is more often less dramatic than the major elements and therefore can be responsible for an insidious case of **hidden hunger**.

Micro-Nutrients

Needed in even less quantities than the major or secondary plant food nutrient elements are the micro-nutrient elements. In the past, these elements have been called "minor elements" but their importance and limitations to the healthy growth of plants is becoming so well established that calling them "minor" because they are used in small amounts is misleading. A complete lack of one of the micro-nutrients will eventually be just as detrimental to plant growth as the lack of any other element.

Seldom is there a complete lack of any plant nutrient element in the soil but seldom also are the elements in the exact quantity and balance with each other to produce the best possible quality of plant growth.

Boron

Boron deficiencies are mostly found in the humid regions as the element, when soluble, is easily leached out of the soil. Most of the boron in soils is tied up in an unavailable form in the organic matter. As the organic matter is broken down by soil micro-organisms, the boron is released in an available form to plants.

Soils likely to be deficient in available boron are
(Continued)



NEW

NEW Weather Control Shelters
Engraving — Styles — Colors
Tee Data SIGNS and BENCHES
Club Entrance & Grounds SIGNS

ORDER NOW FOR SPRING and SAVE

PARKWAY PRODUCTS
ENGRAVED REDWOOD SIGNS

Write → → → → **BOX 487 McHENRY, ILL. 60050**
Phone → → → → **Area Code 815-385-0825**

WASHINGTON and TORONTO (C15) STOLONS
SOD FOR ANY SITUATION
MERION AND KENTUCKY BLUE GRASS,
CREEPING BENT, FESCUE OR
MEYER (Z52) ZOYSIA

WARREN'S TURF NURSERY

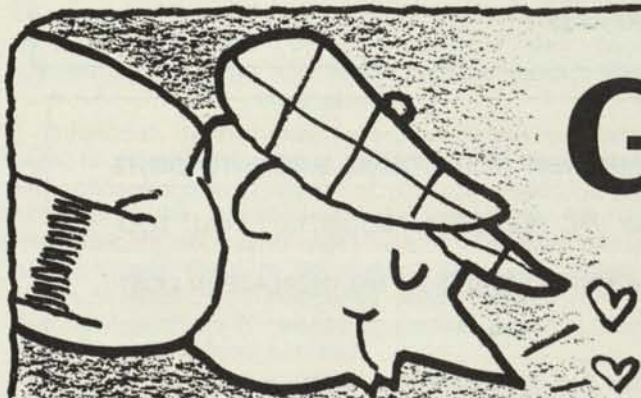
8400 W. 111th STREET :: Phone: Gibson 8-7200
PALOS PARK, ILLINOIS

ROSEMAN

2620 CRAWFORD AVE. UN 4-1842
EVANSTON, ILLINOIS

TURF EQUIPMENT HEADQUARTERS

ROSEMAN GANG MOWERS	FORD TRACTORS
WEST POINT GREENS MOWER	LELY SPREADERS
ROGERS SWEEPERS	ARPS TRENCHER



Golfer's Delight

Since 1882...

that's 83 years ago and the year Darling & Company started in the plant food business. These years of experience, plus technical know-how and continuous research have established Darling a leader in plant food manufacturing.

Whatever your problem—plant foods or soil conditioners—Darling can help you. Our plant and warehouse in Chicago means a ready supply of products with 83 years of know-how at your service.

Fairways and greens kept at their best! And remember: DARLING'S PLANT FOODS DOES IT BEST!

DARLING
& COMPANY

4201 S. Ashland Ave., Chicago 60609
Phone: 927-3000

**For POWER
When You Need
it...**

**...TORO
TRACTORS**

GEORGE A. DAVIS, INC.
5440 Northwest Highway - Chicago 30, Ill.

- MERION and KENTUCKY BLUEGRASS
- C-15 SOD and STOLONS
- PENCROSS BENT SOD

DEARIE and STRUD SOD NURSERY
or Thornton's Turf Nursery
R. R. 2 - Box 72 - ELGIN, ILLINOIS
SHerwood 2-5030

Phone: 312 669-5452 or 312 669-5771

LOUIS SCHACHTNER
Distributor
BLACK DIAMOND HUMUS SOIL
HUNTLEY, ILLINOIS

"DESIGN OF BUCKNER AUTOMATIC
GOLF COURSE SYSTEMS"

Sprinkler Irrigation Supply Co.
650 Roosevelt Rd., Glen Ellyn, Ill.

Glen Ellyn Chicago
HO 9-8730 346-9355

MORE AND MORE MID-WEST GOLF COURSE SUPERINTENDENTS
ARE SWITCHING TO IMC FERTILIZER PRODUCTS. YOU, TOO,
CAN ENJOY OUTSTANDING RESULTS AT NO INCREASE IN COST.

Our Turf Specialists Are At Your Service!

INTERNATIONAL MINERALS & CHEMICAL CORP.
Skokie, Illinois -- Phone YO 6-3000

THE SEQUESTERED FERTILIZERS

FERTIL-ADE and AQUA-SOL
For 15 years Golf Course Superintendents
have relied on Fertil-Ade or Aqua-Sol for
Better Greens that stay Better.

FERTIL-ADE, LIQUID

No. 1 10-8-6
No. 2 10-8-6 with extra chelated iron.
No. 4 15-0-7½
No. 5 15-0-7½ with extra chelated iron.

INSTANT AQUA-SOL
25-10-20 This ratio of analysis scored
"Most Likely for best growth of lawns,
trees and flowers."
Distributed by: George A. Davis, Inc. - R. L. Ryerson
SMITH EQUIPMENT and SUPPLY CO.
1615-21 N. Central Ave. • Chicago 39, Illinois

"Can't stop now, I have to get the cup
in before this Fertil-Ade green closes
the hole."

(Continued)

light-colored sands, sandy loams, and silt loam soils, alkaline soils, and drowthy soils.

Copper

Grasses are among the plants that have a relatively high requirement for copper. Soils most likely to be deficient are peat and muck soils and light-colored, highly acid, leached soils. Copper is important in controlling water balance in the plant and in leaf and shoot growth. Plants that are suffering from copper deficiency lose their firmness and develop a bleached look. Deficiencies have been reported in 13 states and the number seems to be growing.

Iron

Most soils contain a lot of iron but the major portion if it is tied up in unavailable forms often resulting in not enough being available for the plants growing in the soil. Iron is directly essential for the formation of chlorophyll and dramatic results can often be obtained from the addition of iron to the soil.

Iron need is indicated by pale-yellowish color foliage, in the presence of adequate amounts of nitrogen and in soils that are high in lime. A deficiency of iron will often cause a plant to develop short and much branched roots. Iron deficiency is relatively easy to correct and there is little danger of over-applying it because it is not toxic in excessive amounts.

Manganese

Manganese is somewhat like iron in that it is more available in acid soils with a declining availability as the pH goes up toward alkalinity. Manganese is important in the utilization of calcium, magnesium, and phosphorous within the plant. Sandy soils are often short of this important plant food element as are peat and muck soils in some cases.

Molybdenum

It has only recently been discovered that molybdenum is essential for plant growth. It is very much like phosphorous in many of its soil reactions. In acid soils, the soluble iron and aluminum tie up molybdenum so plants can't use it. Deficiencies in plants causes them to be stunted and light yellow-green in color. It is associated with nitrogen utilization. Molybdenum is needed in smaller amounts than any other plant food element.

Zinc

Zinc is linked with iron and manganese in the formation of chlorophyll. The amount available in soils for plant growth is usually very small, ranging from 0.1 to 5 parts per million. Light textured and highly alkaline soils are most likely to be deficient.

Chlorine

Chlorine is the latest element established as an essential micro-nutrient. In plant life it is believed to stimulate the activity of some enzymes and to influence carbohydrate metabolism, the production of chlorophyll, and the water holding capacity of plant tissue. Generally there is no deficiency of chlorine in soils. Chlorine is supplied in many fertilizers, particularly those containing muriate of potash.

Hidden Hunger

Plants, like humans and animals, not only need enough food, but also a balanced diet if they are to make healthy growth and be of top quality. When any one of the plant food elements is not available to the plant in sufficient quantity, growth is affected whether or not the deficiency is acute.

Acute deficiencies usually will reveal themselves in abnormalities, which can be detected by careful observation and study.

Hidden hunger is a much bigger robber of plant growth and quality than is acute deficiency, because it is widespread and goes unseen. While limiting growth and quality, it seldom reveals itself in any recognizable abnormality of plant growth. Moreover, most managers whose turf is suffering from hidden hunger are completely unaware of the fact. It occurs in the zone between acute deficiencies and optimum growth and quality and is relative rather than specific.

Conclusion

While plant food elements are not the only factor a turf manager has to deal with in his efforts to reach his goal of quality turf production, they are a very important tool. Like the use of any other tool, skill is required to use it efficiently.

Advanced programming of the fertilizer applications based on the past experience and soil tests is the mark of a good manager. To program, a manager must establish a goal which is an image of the result he wants to achieve. As in any area of life, the man who clearly identifies his goal and develops a program to reach it, will be successful more often than the man who shoots in the dark.

CLEARY PRODUCTS FOR BETTER TURF

PMAS — Crabgrass and Turf Disease Control

CADDY — Economical and Effective — Liquid Cadmium Fungicide

SPOTRETE — 75% Thiuram Fungicide

"THIMER" — A broad-spectrum wettable powder fungicide and crabgrass killer containing phenyl mercury and thiram.

"METHAR" — Disodium Methyl Arsonate (DSMA) in wettable powder (highest concentrations) and liquids.

"SUPER METHAR" — The new "AMA" liquid crabgrass killer.

CLEARYS MCPP

For selective control of Chickweeds, Knotweeds, Clover, Dandelion, or Plantain in Bentgrass Greens and Fairways as well as Bluegrass, Fescues, and their mixture.

"ALL WET"

Added to Water Obtains Quicker and Deeper Penetration
Retains Moisture, Prevents Dew

W. A. CLEARY CORPORATION
NEW BRUNSWICK, N. J.

ROSEMAN

2620 CRAWFORD AVE. UN 4-1842
EVANSTON, ILLINOIS

TURF EQUIPMENT HEADQUARTERS

ROSEMAN GANG MOWERS

FORD TRACTORS

WEST POINT GREENS MOWER

LELY SPREADERS

ROGERS SWEEPERS

ARPS TRENCHER

ROYER SHREDDERS

PAR AIDE PRODUCTS

SEEDERS

STANDARD PRODUCTS

WEST POINT PRODUCTS

ROTARY PRODUCTS

SALES ● SERVICE ● PARTS ● RENTALS

Notes

Congratulations to the Ted Woehrl family on the birth of a boy!

Glad to hear that Al Bertucci is up and around again.

Dudley Smith will be a speaker on the 23rd of the month at Penn State Turf Conference.

INDISPENSABLE

Sometime when you're feeling important
Sometime when your ego's in bloom,
Sometime when you take it for granted
You're the best qualified in the room,
Sometime when you feel that your going
Would leave an unfillable hole,
Just follow this simple instruction
And see how it humbles your soul.
Take a bucket and fill it with water,
Put your hand in it, up to the wrist.
Pull it out—and the hole that's remaining
Is a measure of how you'll be missed.
You may splash all you please when you enter,
You can stir up the water galore,
But stop, and you'll find in a minute
That it looks quite the same as before.

The moral in this quaint example
Is to do just the best you can.
Be proud of yourself, but remember,
There's no indispensable man.

— From "Our Collaborator"

PATRONIZE OUR ADVERTISERS



SAY YOU SAW
IT IN THE
"BULL SHEET"

ILLINOIS LAWN EQUIPMENT, INC.

OF

ORLAND PARK, ILLINOIS

14750 LA GRANGE RD. U.S. RT. 45

Area 312 - 349-8484

"For the Finest in Turf Maintenance equipment
and Supplies"

WE ARE NOT THE BIGGEST BUT WE TRY THE
HARDEST.

ASK FOR OUR CATALOG

Bob Johnson

Pete Vandercook

Wayne L. Trometer

C. E. STEWART

Civil Engineer

Irrigation, Drainage, Water Supply, Pumping Plants
Design — Reports — Consultation — Supervision
18357 Homewood Ave. Homewood, Illinois

MILLBURN Peat Moss

SAVES TIME! SAVES MONEY!

PROMPT DELIVERY ON BULK TRUCKLOADS

Write, or phone collect: (A/C 317) 583-4411 for details
MILLBURN PEAT CO., INC. P. O. BOX 297 OTTERBEIN, INDIANA

Tel. LE 7-2177

ARTHUR CLESEN

I.M.C. Plant Foods

TERRA-GREEN

Custom Spreading

Regular & Jumbo

CLEARY'S TURF SPRAYS

611 So. Wolf Rd.

Wheeling, Ill.

EVERSPRAY CO.

• UNDERGROUND LAWN SPRINKLING SYSTEMS

IRRIGATION EQUIPMENT

AND SUPPLIES

GEORGE WELLEK

9250 GOLF ROAD
DES PLAINES, ILLINOIS
296-5555

Nels J. Johnson, Tree Experts, Inc.

SINCE 1930

Complete, economical tree service for Private Estates, Parks,
Municipalities, Golf Courses Cemeteries, Schools, Industrial
Areas.

All phases of Arboriculture, Diagnosing, Pruning, Treating,
Transplanting, Fertilization, Hydraulic and Mist Spraying,
Removals, Stump Routing, Municipal Forestry.

— FULLY INSURED —

GRADUATE FORESTERS

• LICENSED ARBORISTS

MAIN OFFICE: 912 Pitner Avenue, Evanston, Illinois

Phones: GR eenleaf 5-1877 — GR 5-5255

Hinsdale, Illinois — FA 5-0970