



The Bull Sheet

Official Bulletin

Midwest Association of Golf Course Superintendents



**WALTER FUCHS, President
and June Host to the M.A.G.C.S.**

JUNE MEETING

Warren Turf Nursery

10 A.M. Till 2:30 P.M.

Glen Eagles Country Club

For Golf and Business in the P.M.

JUNE 10th

ARTICLES

- 1. A Stellar New Bluegrass —
Low-growing FLYKING**
- 2. Red Spider Mites**
- 3. Holmes' Corner**
- 4. Green Grass and Grass Roots**
- 5. New Approach to Curtail Dutch Elm Disease**

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

DICK TREVARTHAN, Editor
122 Evergreen Drive
Frankfort, Illinois 60423

OFFICERS

President — Walter H. Fuchs
First Vice-President — Ed Wollenberg
Second Vice-President — Paul N. Voykin
Secretary-Treasurer — Roy Nelson

DIRECTORS

Alfred Bertucci	Harold F. Frederickson
Bertram H. Jannes	Theodore J. Sokolis
Dudley Smith	Richard E. Trevarthan



John Husar, guest of the M.A.G.C.S., is flanked by Ray Gerber on the left and Peter Voykin on the right. Mr. Husar writes a column titled "The Locker Room", which appears every Sunday in the Chicago Tribune.

M.A.G.C.S. WIVES

The M.A.G.C.S. wives will have their second meeting June 28th at the Willoway Manor. The Willoway Manor is located at Route 65, Naperville, Illinois. Dinner will be at 7:30, anyone interested in attending call Mrs. Walter H. Fuchs (312 - 257-2869).

You need not be a wife of a golf course superintendent. All wives of all members are cordially invited to attend. You need not attend all meetings to be a member. Sixteen wives attended the May meeting. Our goal this month is for each member to bring at least one more new member with her.

Mrs. Walter Fuchs



The President's Message

The bull sheet celebrates its twenty-first birthday with the current issue. It was founded by Mr. Norman Johnson who was editor until he moved to Florida. The late Mr. Donald Strand was editor following Mr. Johnson. Other editors have been Mr. William Stuppel, Mr. Bert Rost, Mr. Ted Woehrle, Mr. Doug Jabaay, Mr. Tom Burrows, and our current editor, Mr. Dick Trevarthan. I'm sorry if I missed mentioning anyone. Do any of you know of any others? It is not an easy task to be an editor, as you all can well imagine. We are very proud of the Bull Sheet and we know it is appreciated by all who receive it. We hope it will continue to succeed for many, many, more years. We're sure it will.

The poem in last month's issue entitled "Changing Times" is one I gathered from somewhere a few years ago. If any of you have anything you would like to have published send it to our editor, Dick Trevarthan. I'm sure he would appreciate it. A little chuckle now and then is good for us all.

As I said before we are now in the busiest time of the season. More supervision and less physical labor is required of us. You cannot supervise your crew properly and be on some remote spot on the golf course. Keep constant check on supplies. Order materials early. Do not rely on suppliers for immediate service and deliveries of important and necessary chemicals. They too are busy this time of the year. Oh! I know our suppliers will, and have, delivered to us on short notice. Let's just try and not ask them to. Relax for a few hours now and then. This will keep you fresh both mentally and physically. Play golf at our montly meetings. Paul Voykin, arrangement chairman, and Bert Jannes, co-chairman, have informed us that the monthly meetings for 1968 have been arranged. I, too, would like to thank all the superintendents who so kindly donated their clubs for our meetings.

Both our May and June meetings will probably have taken place by the time you receive this issue. I will tell you later about them. Try and attend the July 8th meeting at Glendale Country Club. Mr. Clarence Mueller will be our host Superintendent. A family style chicken dinner will be served.

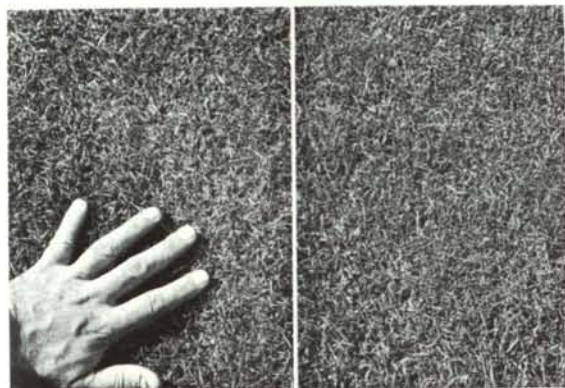
My father passed away May 1st in Cedar Rapids, Iowa. I want to thank the members of the Midwest Association for their kind expressions of sympathy. The flowers and sympathy cards were appreciated by the family of Mr. Englebert Fuchs.

Walter Fuchs, President

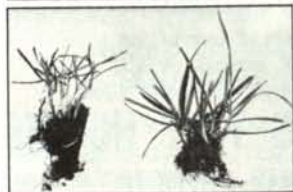
A stellar new bluegrass — low-growing FLYKING

By Robert W. Schery

Director of The Lawn Institute, Marysville, Ohio



PHOTOGRAPHS BY LAWN INSTITUTE



ABOVE: Which is bluegrass, which is bentgrass? With both mowed at 1/2-inch it's hard to tell. That's 'Fylking' bluegrass under the hand. LEFT: Both are bluegrass. 'Fylking', left, has fine texture compared to the usual form; has twist or curl to leaves.

Kentucky bluegrass as a species is outstanding for lawns—elegant, hardy and widely adapted. No other turfgrass spreads so profusely by underground stems (called rhizomes), forming a soil-holding, weight-supporting sod second to none. No wonder that this once incidental grass from Europe has become one of the most important "agricultural" crops, near the top in economic importance for many states. As America suburbanized, bluegrass was ready for the move, its mettle tested by decades of natural selection in Kentucky and the Midwest.

Now a new stage in the evolution of fine turfgrass has come. Selections are sorted out from this hereditary pool of proven accomplishment, to yield varieties matching today's demand for luxuriousness and tailored performance. One such is 'Fylking,' widely tested as 0217.

'Fylking' has "arrived" opportunely. Today's standards do not permit much seasonal weakness, and some of the bluegrass elite are beginning to suffer from unpreventable disease. Stripe smut attacks widely used bluegrasses such as 'Windsor' and 'Merion' (though genetically diversified "old fashioned" natural Kentucky bluegrass suffers less, as do mixed populations such as 'Arboretum' or 'Park'). So far 'Fylking' has proved relatively unbothered by the incurable stripe smut.

Not only is 'Fylking' resistant to smut and most other diseases, but it is novel in another important respect. 'Fylking' can be mowed low, much lower than customary for a bluegrass, about as one might expect to keep Highland bentgrass. 'Fylking' or combinations of it with a fine fescue did well at half-inch mowing on the Lawn Institute grounds in Ohio. Dr. Funk of Rutgers University, however, suggests mowing at one inch to help grass vigor and weed control. This is still low enough to please those homeowners who "itch" to crop closely.

Individual plants of 'Fylking' don't look a whole lot different than other bluegrasses, except that the leaves are unusually fine-textured and quite arched (causing the sod somewhat to felt). Its delicate appearance much resembles fine fescue, suggesting that a bit of Chewings or Penn-lawn in a 'Fylking' seed blend should prove compatible as a nurse for new plantings. As with most bluegrasses, 'Fylking' is an excellent rhizomer, spreading into a sod that can be lifted in a matter of weeks. 'Fylking' also spreading into a sod that can be lifted in a matter of weeks. 'Fylking' also spreading into a sod that can be lifted in a matter of weeks. 'Fylking' also spreading into a sod that can be lifted in a matter of weeks. When 'Fylking' is mowed low, less than a half inch, the tillers grow near the ground much like bentgrass.

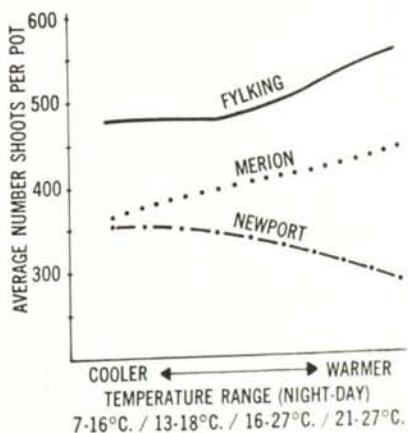
Continued

New Bluegrass

Continued

'Fylking' will be licensed for sale this spring. Some seed was furnished sod growers last year, so that select sod can be purchased too, although both seed and sod will be scarce at first over much of the country. Indications are that 'Fylking' will become one of the premium sod grasses, joining 'Merion' as a "Cadillac" variety. So far 'Fylking' has shown no serious drawbacks during three years of testing at research centers throughout the country. Some new pathogen may eventually attack, but so far its disease-resistance seems promising.

The planting and care of 'Fylking' is much the same as for other bluegrasses. The variety is remarkably fast sprouting and quick to cover. Experience at the Lawn Institute indicates that after a rapid first few weeks, slow, consolidative growth sets in. Planting has been successful at all seasons; the newer techniques for irrigating, mulching and pre emergence control of crabgrass make even summer seedings more feasible than formerly. 'Fylking' is a moderately heavy feeder, and a lawn fertilizer rich in phosphorus is suggested for mixing into the seedbed. Once established, 'Fylking' should do well with three or four feedings annually, each to provide about a pound of nitrogen per 1,000 square feet. Because of its low growth 'Fylking' responds to reel as well as rotary mowing. 🌱



Growth chamber response of three Kentucky bluegrass varieties planted in pots. Note 'Fylking's' greater density, and response of it and 'Merion' to higher temperatures, as compared to 'Newport.' Research was by Dr. Victor Younger, U. of California, Riverside.

Red Spider Mites

by Stanley Rachesky

Extension Entomologist, University of Illinois

Description — Several species of mites that feed on the foliage of trees, shrubs, flowers, and vegetables are commonly called red spider mites, spruce spider mites, two-spotted spider mites, or European red mites. They are small, active creatures that look like specks running about on the undersides of the leaves or on the fine webbing spun by them. In spite of their small size, they can easily be seen when the infestation becomes heavy. The mites vary from almost no color at all to pale yellow. They may or may not have dark spots — orange, green, or almost black — depending on their size, stage of development, and the host plant. The first stage that hatches from the egg has six legs, but after the first molt both the immature and adult mites have eight legs. The almost spherical eggs are lightly cemented to the foliage of the plants. They hatch in five to ten days, depending on temperatures. In warm weather, a generation may be completed in ten or twelve days.

Damage — In feeding, the mites rasp and pierce the foliage to withdraw the plant juices and chlorophyll. The damaged foliage at first appears finely mottled and then grayish, dry, and brown. The leaves of deciduous plants fall prematurely, while the foliage or branches of evergreens die. The damage is not due to the voracious feeding of a few mites, but to the feeding of a tremendous population which builds up quickly.

Detection — Plants that are likely to be attacked by mites should be inspected frequently, beginning in May, to detect and control the infestation before damage occurs. A convenient way to detect an infestation is to strike a few branches of the plant sharply with one hand while holding a white dish or piece of paper under the branches with the other hand. If mites are present, they can be seen running about on the paper or dish when it is held in bright light.

Control — Mites can be kept under control by syringing the plants frequently with a strong stream of water. It is not enough merely to sprinkle them, because a forceful stream of water is required to dislodge both mites and eggs. More dependable control can, however, be obtained by spraying, and fortunately several excellent miticides are available. Among those that can be recommended are dicofol (Kelthane) or malathion, Aramite 15-W, Chlorobenzilate 25-W. These materials have good initial killing properties, and the spray residues are effective against mites for several weeks. None of the materials are hazardous to use. Directions of the respective manufacturers should, however, be followed.



Spider mite



— YAZOO RIDERS —

YAZOO

Master
Mowers

The highly
Maneuverable
Husky, Dependable
Fairways Mower.

SENSATION — The Finest Trimming Mower
made — Sizes 14" to 21"

KAHN BROS. CO.

4409-25 S. Halsted
(Across from Ahphitheater)

BO 8-0640

now available . . .

SCOTT'S WINDSOR SOD

- also - • Merion - Kentucky - Shade Blends
- C-15 Sod and Stolons
- Penncross Bent Sod

THORNTON'S TURF NURSERY

a/c 312 - 742-5030

Rt. 2 Box 72

Elgin, Ill.

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"

ASK FOR OUR NEW CATALOG

Wayne L. Trometer

Pete Vandercook

Bob Johnson

ASPHALT DRIVEWAYS — PARKING LOTS — ETC.

"Golf Course Work a Specialty"

LEMONT PAVING CO.

SAND & STONE

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

FOR EVERYTHING IN IRRIGATION !

Sisco
ENGINEERED RAIN

Sprinkler Irrigation Supply Co.

799 Roosevelt Rd., Glen Ellyn, Ill. 60137

Phone: 469-8730



HOLMES' CORNER

by James L. Holmes
USGA Green Section
Mid-Western Agronomist

This will be a rather short BULLSHEET article as I have been kept busy, the last couple of weeks, observing serious "winterkill" damage on greens in the greater Chicago area — and especially further west and north. Of keen interest, to me anyway, is the comment in "Holmes' Corner" which appeared in the April issue of the BULLSHEET. In the last paragraph, I reported I have seen "absolutely no evidence of winterkill or serious damage throughout the Chicago area this spring." It looks like you would learn after a while to be a little patient when dealing with nature. Honestly, at that time we had just had a wet snow and it looked like green turf would recover in great shape. Within two weeks following the April article, temperatures were in the 80's, wind was in excess of 30 miles per hour for three days, and relative humidity was 30% or below. Sure enough, green turf, especially on high spots, simply desiccated and to date has refused to show much life. Even so, it would seem that nodes continue to be alive in these areas and recovery should be almost complete — with time. Most golf course superintendents have either spiked or aerated the high spots, overseeded with either Seaside or Penncross bentgrass at a rate of 1 pound per 1000 square feet, and topdressed with soil either from the cores or from an outside source. This, along with keeping the desiccated areas constantly moist, is all that can be done. A considerable amount of patience must be forthcoming from golfers as well as golf course superintendents; simply waiting until some seed, but primarily node growth, occurs. Recovery should be well on its way following two to three weeks of "good growing weather." In the future, I believe I will wait until June 1st before I make any specific statements regarding winter and spring recovery.

This past week was spent in southern Indiana and Kentucky. Green turf in these areas has wintered well and is quite good. Not only this, but Bermudagrass, where it is used, has completely broken dormancy and it would appear that winter damage is only minimum this year.

This coming week I plan to make a series of visits in Wisconsin and have already heard that desiccation or drought damage on greens is a serious problem there, also.

THE LOGICAL CHOICE

Golf course superintendents everywhere are turning to Greens and Fairways turf products from Borden Chemical. It's the logical choice. Greens & Fairways turf foods are especially formulated for use on golf courses.



FOR PRICES AND NAME OF NEAREST DISTRIBUTOR, WRITE:
THE BORDEN CHEMICAL CO., SMITH-DOUGLASS DIVISION
P. O. Box 419, NORFOLK, VIRGINIA 23501

WARREN'S A-20 BLUEGRASS —
For Tees & Collars, Takes Short Mowing

WARREN'S A-34 BLUEGRASS
For Shaded Areas

MERION BLUEGRASS AND BULEGRASS BLENDS
CREEPING BENT SOD AND STOLONS
WASHINGTON — TORONTO — COHANSEY

WARREN'S TURF NURSERY

8400 West 111th Street Phone (312) 448-7200
PALOS PARK, ILLINOIS



for PROFESSIONAL TURF MAINTENANCE

- Fumigants
- Insecticides
- Fungicides
- Herbicides
- Plant Foods
- Soil Conditioners
- Soil Structure Builders

Swift & Company Agricultural Chemicals Division

150 Marble St., Hammond, Ind.
Phone 312-862-0700

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.

QUICK GUIDE TO BETTER SLIDES

1. A slide should present **one** and only one **central idea** and be as brief as possible.
2. **Only specific items** to be discussed in the talk should be included in the slide.
3. If **tables of data** are to be presented, three to four columns each having three to four lines of data should be the maximum for one slide.
4. Slide **copy should be** lettered using either a LeRoy or a Wrico mechanical lettering set, or be typed with a special typewriter having boldface pica Gothic type.
5. The preferred **height-width ratio** for the full slide field in reading position is 0.7.
6. Lines **separating columns and headings** greatly improve the ability of the viewer to comprehend the data quickly.
7. With **graphs**, grid lines should be at a minimum and lines for curves should be heavier than border lines or axes. Separate lines should be of different type or colors.
8. **Color adds** attractiveness to slides and makes clarity of the illustrations much easier and should be used whenever possible.
9. In taking **pictures of plants** and plant parts, select the time of day, season, etc. with the thought of obtaining the best possible illustration of that which is to be illustrated.
10. **Use a scale** in photographic illustrations and have a background that has contrast and adds clarity to the subject.
11. Critically **examine every slide** and try out the entire set before presenting them at a public meeting.
12. **Number and mark** every slide to show its proper sequence and orientation and hand them to the operator exactly as you wish them shown.

Southern Weed Conference

FOR YOUR GOLF COURSE NEEDS

WRITE OR PHONE

ALFCO ROKEBY CO., INC.

FERTILIZERS & CHEMICAL SPECIALTIES FOR HORTICULTURE & TURF

phone 373-1394 p. o. box 267 MARIETTA, OHIO 45750

Phone: 312-669-5377 — 312-669-5452

LOUIS SCHACHTNER

Distributor

BLACK DIAMOND HUMUS SOIL

HUNTLEY, ILLINOIS

AQUA-GRO QUALITY BLENDED WETTING AGENT
AQUA-T LOW COST BLENDED WETTING AGENT
STOMA-SEAL CHEMICAL CONTROL OF WILT

AQUA-GRO GRANULAR

CONVENIENCE OF APPLICATION

EAGLE
EP
 PICHER



ANNOUNCE WITH PLEASURE
 THE APPOINTMENT OF SWIFT & COMPANY

DISTRIBUTOR

- DIALOAM-DIATOMACEOUS EARTH SOIL CONDITIONER — NOT A CLAY
- FLOOR DRY A HIGHLY ABSORPTIVE OIL ABSORBENT

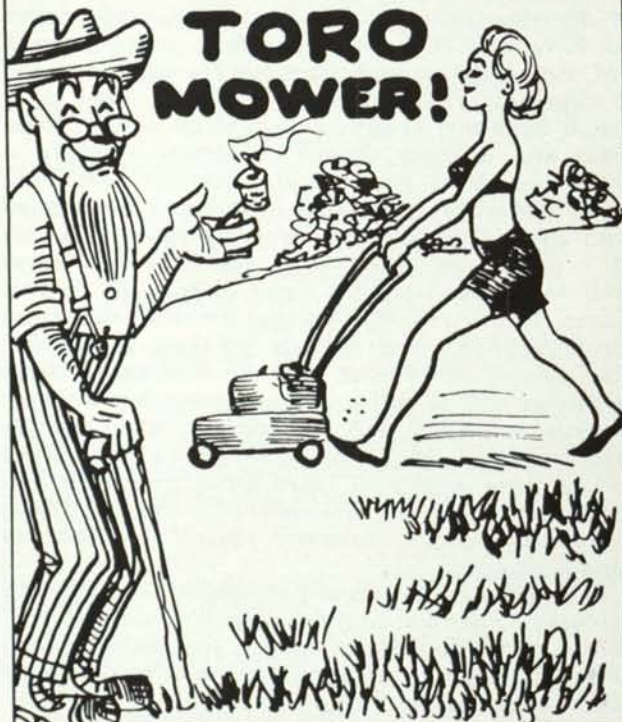
Swift & Company, Agricultural Chemicals Division

150 Marble St., Hammond Ind.

Phone: 312 - 862-0700

There ain't nothin' purtier
 than a lawn mowed with a

**TORO
 MOWER!**



GEORGE A. DAVIS, INC.

5440 Northwest Highway — Chicago 30, Ill.

Golf Report May Meeting

Our first official golf outing of 1968 was a tremendous success. Adolph Bertucci and his crew are to be highly commended for the wonderful condition of Lake Shore Country Club. 106 members and guests participated in three contests. The Peoria handicap system was set up for the members and the Callaway handicap system was set up for the guests. The third contest being closest to the pin, was set up for both members and guests.

The winners of the closest tee shot to the pin on all par three holes were:

- 6th hole — George Druzisky
- 8th hole — Peter Voykin
- 11th hole — Adolph Bertucci
- 14th hole — Larry Dennis

The winners of the Peoria were:

- | | |
|----------------------|---------------------|
| 1. John Hooper | 11. D. Meyer |
| 2. Harold Micheals | 12. G. Weidner |
| 3. Toney Meyer | 13. J. Hanson |
| 4. Oliver Miles | 14. H. Nielson, Jr. |
| 5. Bill Krafft | 15. D. Gricus |
| 6. Ron Voykin | 16. R. Schei |
| 7. Paul Voykin | 17. D. Richardson |
| 8. Bill Saielli, Sr. | 18. C. Hoppnan |
| 9. Barne Wendt | 19. Adolph Bertucci |
| 10. Dom Grotti | 20. E. Fisher |

The Winners of the Callaway were:

- 1. H. Fuchs
- 2. Bill Mooney
- 3. R. Wagley
- 4. P. McDonald, Jr.
- 5. A. Stanley
- 6. G. Winar
- 7. J. Nickerson
- 8. H. Nielsen, Sr.
- 9. M. Bonamarts
- 10. T. Byrne
- 11. B. Haskell
- 12. R. Thompson
- 13. T. R. Ruwitch
- 14. H. Dennis

Host superintendent gifts were given to the following:

- January 1968 meeting — Al Johnson
- April 1968 meeting — Roy Nelson
- May 1968 meeting — Adolph Bertucci

Thanks to be given to Mr. Gus Bernardoni, assistant golf professional at Lake Shore Country Club, for managing the golf events.

M.A.G.C.S.
Golf Chairman
Al Bertucci

Correction: Author of the article "Irrigation Water and Related Golf Course Problems in the Chicago Area" in May Bull Sheet, is **Vaclay Zolman**, Representative for Brookside Research Laboratories in New Knoxville, Ohio.



Carl Grassel, Superintendent Park Ridge Country Club, Jerry Cheesman moving to Florida to start a new Teaching Assignment at a Junior College, and Don Gricus, Superintendent of Valley Lo Club.

MILORGANITE

USED AND PREFERRED BY
GOLF COURSES EVERYWHERE

TORONTO

C-15
BENT
SOD & STOLONS

"PURE TO STRAIN"

GROWN ON STERILIZED SOIL TO INSURE FREEDOM FROM POA ANNUA AND OTHER FOREIGN GRASSES.

PENNCROSS BENT SOD



H & E Sod Nursery, Inc.
4301 W. Flossmoor Rd.
Tinley Park, Illinois
312 798-2210

GREEN GRASS and GRASS ROOTS

by Dr. C. W. Lobenstein
Associate Professor of Horticulture
University of Missouri

The growing of healthy green grass is the common goal of our respective jobs which brings us together at meetings. The users of our products expect the production of an adequately thick ground cover at all times in spite of the many hurdles of disease, weather, and soil problems and at the same time desire the product to be green. Many time GREEN is NOT GREEN ENOUGH and we may find ourselves yielding to pressures to make it greener. This is fine—we all desire to produce a product that gains maximum customer satisfaction.

All who have examined critically the question of "How green is good" recognizes it is not a new problem. In any series of turfgrass literature this matter is discussed repeatedly. As recently as 1960 Dr. Eliot C. Roberts discussed the relationship between foliage and root production and again pointed out that yield, as foliage production, and dark green color were, in themselves, poor indicators of quality turfgrass.

Anyone seriously concerned with turfgrass management recognizes as obvious, the fact that grass, like most other plants, cannot be grown without an adequate root system. Examples of problems observed apparently do not yet recognize this point or overlook it in the pressures of the growing season. Thus some of the factors affecting foliage and root development are perhaps worthy of review and re-emphasis.

Mowing is necessary in production of good usable turf but may be a necessary evil as far as the grass is concerned. The fact that clipping practices, especially at the heights often required, reduces foliage and root growth is a cardinal principle in turfgrass growth. Maintenance of high nitrogen levels and optimum moisture conditions stimulate shoot growth much more rapidly than root growth especially when new leaves are removed as rapidly as they are produced. This is the second principle. If root development is further placed at a disadvantage by poor aeration through compacted or poorly drained rootzone structure, the effects of the two previous facts are aggravated. The poor growth of roots is transferred to poorer shoot growth. Additional nitrogen or additional water in an effort to get quick results only makes matters worse. With a good structured, well aerated rootzone, troubles may still arise from problems of pH or failure of the turf user to appreciate the limitations of air and soil temperatures beyond which the turfgrass cannot be forced without serious injury.

Development of slow release nitrogen fertilizer compounds in recent years have been a most useful and welcome addition to the tool kit of turfgrass management. The ability to provide a more continuous feeding in place of the very stimulative soluble materials should lead to better turf health. At the same time, many still use moderate amounts of the quick solubles or even spray-on applications to get that "quick-kick" to keep the color up and the user happy without full knowledge and awareness of the interacting factors regulating foliage and root growth, all three forms can still cause serious trouble.

As an example, up to June, the greens on a small course in Southern Illinois started the season in excellent shape. Upon subsequent show of poor color, a urea-formaldehyde application was made, the only fertilizer application since early spring. The greens

responded—colorwise! During the summer nearly all greens went out from 20 to 90 percent in spite of verticutting, skipping, daily watering, and more U-F. When the damage had been done it was discovered that the greens had received 16 pounds of calcium arsenate per 1,000 in a split application the preceding fall and spring, some potash but no phosphate of record. No soil test had been made, but a fairly good guess could be made as to the trouble, especially in view of the arsenical used on typically low phosphate soils of Southern Illinois.

The point of concern here is that even with the exclusive use of slow release nitrogen materials, trouble can surely arise if all factors are not considered. With the typical reduction of the working depth of the grass roots accompanying high temperatures, coupled with depletion or complexing of the phosphate reserves in the surface zones of soil, addition of even slow release nitrogen to get growth and color can backfire just as surely as the more quick soluble forms.

Two home lawns in Carbondale illustrate a durable turf. They were established with the best of seed with adequate surface fertilization including limestone but no incorporation sufficiently deep into the rootzone of the slowly soluble limestone or phosphates. The results—? By following recommended applications of a complete fertilizer with a high ratio of slow release nitrogen including regular month applications, beautiful lawns were produced—as long as the rains came and before that section of the city ran out of water. Then, with the dry summer and an anti-watering ordinance, disaster struck. Other lawns in the neighborhood, with moderate to little fertilization and particularly lower nitrogen levels, survived. Not as green of course, but they survived. The luxuriant foliage had been produced at the expense of a root system adequate to carry through; moreover, the thatch developed by this program had encouraged the roots to develop even shallower in the tight soil. Small wonder the turf expired when the thatch dried out.

In a long-term fertility experiment on bluegrass at Dixon Springs in cooperation with the University of Illinois, Department of Horticulture, we again observed

STILL TRYING, THOUGH

One of the reasons we are still a great nation is that we have been unable to exhaust our resources—in spite of our best efforts.

BURDETT'S, INC.

Seeds • Fertilizers • Golf Course Supplies
Swift Road at North Avenue
P. O. Box 186 Lombard, Ill. 60148
Phone 312-629-1123



AGRICO COUNTRY CLUB

12 - 4 - 8

(50% Organic Nitrogen)

10 - 6 - 4

(25% Organic Nitrogen)

Uramite and NuGreen
Rainbird & Nelson
Sprinklers and Valves
Myers Sprayers and Pumps
All Insecticides and
Fungicides
Weed Killers —

Soil Sterilents

PROMPT SERVICE

the breakdown of greenness of color as a measure of turf quality. This experiment was set up on low phosphate soils of very desirable structure but receive supplemental irrigation only once during the summer. In the various combinations used, plots receiving high nitrogen rates in monthly increments always rated highest from the viewpoint of color regardless of whether P and K were high or at the minimum level. When drought took its toll, high nitrogen plots lost most grass and by the end of the season were the lowest in measured shoot density.

In review, the basic principles of maintaining good foliage and root balance are summarized by many papers and talks in previous turfgrass meetings as follows: maintain clipping heights as high as possible with the dictates of the grass and its use; diseased leaves cannot support adequate root growth nor use of the turf; phosphorus and slowly soluble nutrients must be adequate throughout the rootzones; other essential nutrients should be supplied in proper balance and quantities; pH and water factors should be regulated with common sense; roots cannot grow without air; and nitrogen levels be as low as possible without causing the grass to completely lose its vigor to recover when climatic and disease factors become more favorable. Even though the slow release materials may provide a much more desirable means of supplying nitrogen to grow GREEN grass, they do not provide a means of escaping the pitfalls of grass being permitted to grow TOO GREEN for its own good.

(Originally Published in the Massachusetts Turfgrass Bulletin)

Dr. Lobenstein was born in Kansas. He received his B.S. degree from Kansas State, M.S. in Botany from University of Illinois, and Ph.D. in Agronomy from Purdue.

YOU KNOW WHAT? . . . YOU AND ME DO ALL THE WORK

The population of the United States has now reached the 200,000,000 mark. A practical mathematician calculates it this way:

Half of the total is under 21 — leaving 100,000,000 to do the work; There are 70 million over 65 — leaving 30,000,000 to work; Government employees, 24,000,001 — that leaves 5,099,999 people to work. The military has 5,600,000 in service — leaving 399,999 to work; Another 203,000 are in hospitals and sick — leaving 196,999 to work; Jails are housing 101,000 leaving 95,999 to do the work; People lost or missing total 54,000 — leaving 41,999 of which 41,997 are bums, protesters or agitators.

This leaves 2 — YOU AND ME TO DO ALL THE WORK!

(Editor's note — You get busy, I'm going fishing.)

NEW MEMBERS — Since January 1, 1968

1. Michael S. Pontius — D
Freeport, Illinois
January 18, 1968
2. Kenneth L. Quandt — B
Glencoe, Illinois
January 18, 1968
3. Ralph C. Peterson — Hon.
Oak Park, Illinois
January 19, 1968
4. Donald P. DuBeau — D
Naperville, Illinois
February 1, 1968
5. John C. West — A
Waukegan, Illinois
April 17, 1968
6. David A. Meyer — D
Lisle, Illinois
April 17, 1968
7. Thomas F. Cronin — E
Hoffman Estates, Illinois
April 17, 1968

Rotary Mowers
Electric Edgers

"OK"

Hedge Trimmers
Generators

By ORR

SOLD BY

ARTHUR CLESEN

C. E. STEWART

Civil Engineer

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

Ask about our complete
line of Turf products for
all Golf Course Main-
tenance.



Tel. LE 7-2177

ARTHUR CLESEN

I.M.C. Plant Foods

TERRA-GREEN

Pioneer Chain Saws

Regular & Jumbo

CLEARY'S TURF SPRAYS

611 So. Wolf Rd.

Wheeling, Ill.

DON'T BUY BIGGER TONS — BUY BETTER TURF
BUY GOLD CUP & PREMIUM THRIVE
IMC's DYNAMIC DUO!

Contact Your IMC Distributor or Call:

INTERNATIONAL MINERALS & CHEMICAL CORP.



Bud Camp — 757-7217

Frank Ross — 757-7217

IN APPRECIATION

Mr. Adolph Bertucci would like to thank the following people for helping him celebrate his birthday, along with the M.A.G.C.S. monthly meeting held May 28, 1968, at Lake Shore Country Club:

Art Clesen, George Wellek, and Bob Johnson for the Bar. Roger Brown of I.M.C. for the **Shrimp and Beer**, Cortesi Brothers of Sun Set Foods for the **Fruit**, Jack Kearmey and Don Conover for the ball washers, Bill Mooney from Lake Forest Savings and Loan for the guest prizes, Mando Scornavacco from Washington Gardens Restaurant for the prizes for the closest to the pin contest (each winner receiving two free dinners), and Mike Miotti from Menoni and Mocogni Co. And special thanks to Kenneth DeWees and his staff from Lake Shore Country Club.

NEW APPROACH TO CURTAIL DUTCH ELM DISEASE

Dutch Elm Disease may be curtailed by a tiny wasp that kills the disease carrier. The wasp, **Dendrosoter protuberans**, attacks a disease-bearing beetle that burrows into the bark of elm trees. The female Dendrosoter wasp locates hidden beetle larvae in the bark, thrusting her stinger — actually an egg-laying organ — through the bark, depositing eggs beside the beetle larvae.

When the eggs hatch into wasp larvae, they attack the beetle larvae, killing them by sucking their body juices. Adult wasps increase the tempo of the attack by producing three generations for each generation of beetles.

Entomologist R. I. Sailer, former head of ARS' European Parasite Laboratory, near Paris, now Chief of the Insect Identification and Parasite Introduction Branch, Beltsville, Md., collected the wasp in France. After he determined that the wasp attacks only the European elm bark beetle.

Releases of the wasps by entomologists of USDA's Forest Service, in Ohio and Missouri, indicate that the parasites will seek out the beetle larvae under the environmental conditions in those States; more extensive releases are being made by cooperators in Michigan with equally promising results.

Scientists are now rearing the wasps by the millions at several laboratories, including the Northeastern Forest Experiment Station Laboratory, Delaware, Ohio, for research and mass release in infested areas. Although the wasps are not expected to eradicate the beetles (this would result in starvation of the wasps), they could become a major weapon in the battle to end the epidemic threat of Dutch Elm Disease. The wasp kills up to 70% of the beetle larvae in Europe, which is one reason Dutch Elm disease is not as serious a problem there.

Reprinted from Area Hort. Extension Newsletter

Our Deepest Sympathy to Mr. Henry L. Lange and Family. Mrs. Henry Lange Passed Away May 17, 1968.

PRECISION BLENDED TOP DRESSING

Custom blended to your specifications by our modern equipment.

*Buy when you need —
Eliminate costly storage*

We sell an air dried, uniform and free flowing top dressing.

ASK THE MAN WHO HAS USED IT.

HUMUS — BLACK SOIL

HENRY FRENZER

Area Code 312
658-5303

620 Webster St.
Algonquin, Ill.
60102

ROSEMAN

2620 CRAWFORD AVE. UN 4-1842
EVANSTON, ILLINOIS

TURF EQUIPMENT HEADQUARTERS

ROSEMAN GANG MOWERS	FORD TRACTORS
TILLER RAKES	LELY SPREADERS
SNOW PLOWS	ARPS TRENCHER
ROYER SHREDDERS	PAR AIDE PRODUCTS
SEEDERS	LOADERS
ROTO TILLERS	ROTARY MOWERS

SALES ● SERVICE ● PARTS ● RENTALS



Team up with ARMOUR for a championship course

For *Professional Turf*, look to Armour for a complete line of golf course fertilizers and turf protection products. Vertagreen Tee-Green, Tournament, Vertanite, and Vertagard Turf Protection Products team up to put your course in championship form. Every product recommended as part of the Professional Turf Program is made *especially* for golf turf. Every product is backed by Armour research and the services of your experienced Armour representative. He's a "pro" when it comes to turf.



George A. Davis, Inc.
5440 N. Northwest Hwy.
Chicago, Illinois
312-763-8363

Kahn Brothers Co.
4425 South Halsted
Chicago, Illinois
312-268-0640

Lohse Nursery
R.R. #1
Dixon, Illinois
815-288-1637

Sommer Brothers Seed Co.
P.O. Box 248
Pekin, Illinois
309-346-2127

Garden & Turf Supply Co.
300 Bade Street
New Haven, Indiana
219-749-5162

Assoc. Pfister Growers
P.O. Box 471
Geneseo, Illinois
309-944-4661

ARMOUR AGRICULTURAL CHEMICAL COMPANY

P.O. BOX 1685 • ATLANTA, GA. 30301

Two timely articles which will appear in the June issue of "THE GOLF COURSE SUPERINTENDENT."

THE GOLF COURSE SUPERINTENDENT IN JAPAN

by Charles Mainard
Mallinckrodt Chemical Works

Of Japan's 100 million population, over 5 million are avid golf players. Japan's enthusiasm for golf received world-wide publicity in the fall of 1966 when the Canada Cup Tournament was held at the Yomiuri Country Club in Yokohama.

This fantastic enthusiasm for golf, and the extremely high ratio of players to golf courses, combined with the Japanese traditional desire for picturesque beauty in landscaping makes the task of the golf course superintendent unbelievably challenging. Nevertheless, he has risen to this challenge. Even though some private clubs may have as many as 150 to 200 players per day each, their hardworking and dedicated superintendents have produced and maintained some of the most beautiful golf courses in the world. No cost is spared in labor or time in achieving a beautiful course. The seemingly manicured courses of Japan are indeed a source of pride and "face" not only to the superintendent but to all the club's employees and members as well.

From the extreme of too much water in the rainy season, the superintendent must then contend with not enough water in the dry season. Golf courses in Japan seldom have irrigation systems except for on the greens. This is overcome to some extent by having a **double** set of greens at each hole.

Probably the most striking thing about the operation of the golf course as compared to the United States is the number of people employed. On the average 30 persons per 18 holes are necessary (many Japanese golf courses do consist of 36 holes); con-

sequently, it is very common to find 50 to 60 workers per club all reporting to the one golf course superintendent.

A THOUGHT ABOUT AUTOMATIC IRRIGATION

by Frank Dobie — The Sharon Club

Some of the features a superintendent may desire may already be standard in the industry; some others may be in use by a few other superintendents; and others may have never been tried before. Research by the superintendent into existing practices will disclose where his ideas fall. With a composite of the superintendents' ideas, an engineer can design a system that will not only be a replacement for his night waterman, but one that will fill all of his requirements of irrigation.

Since maintenance of the system would be handled by our personnel, we felt that they should be involved in every operation of installation. This way they would know first hand every component of our system.

A stock of spare parts for almost every portion of the system is maintained by our mechanic.

Since the original crew and myself will not be here forever, we have written a service manual and have made an "as-built" drawing of the system. The drawing is on a plastic overlay of an aerial photograph.

The requirements we wanted in our system are not important in themselves. They do illustrate that a system can be engineered and built to accommodate all the needs that you as a superintendent wish to fulfill in irrigating your course. By researching the experience of the many qualified irrigation engineers, contractors, and superintendents who have worked with automatic irrigation you can adapt their knowledge to your own situation.



L. to R. Kenneth DeWees, Elmer Bertucci, Adolph Bertucci, and Corrado Bertucci.



Adolph is flanked by his staff at Lake Shore Country Club.



Adolph is flanked by two out of town guests, Leo Cleary on the left and Dick Hagberg on the right.

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

THE SEQUESTERED FERTILIZERS



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

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