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

DICK TREVARTHAN, Editor 122 Evergreen Drive Frankfort, Illinois 60423

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L. to R. Host Superintendent at the MAGCS May meeting Walter Pieper, Ed Wollenberg, Norm Kramer, GCSA Vice-President and our good friend, guest speaker Dr. Mike Britton and Walter Greens, chairman C. T. Mast.

"FLAG AND STRIPE SMUT"

Was the talk given by Dr. Mike Britton at the May Meeting of the MAGCS. Slides and actual diseased turf were shown as examples of identification. It was said that the disease is becoming more prevalent and the worst month for it being May.

The only control known is Benlate at a rate of 3 ozs./1,000 every 14 days. Benlate is also excellent for powdery mildew, and has little effect on Leaf Spot. Since Benlate is not on the market yet, our best control is don't let turf dry out, "no stress."



The President's Message

Within a period of 10 days recently, golf lost two fine gentlemen. I am referring of course, to General Eisenhower and Norman Johnson. General Eisenhower was our 34th president of these United States of America. I am pretty sure we are all very much aware of the history of his life, and will have to agree that he was a great man in many ways and had a very infectious personality. But I think we superintendents knew him best for his love for the game of golf. It was so great that he had a putting green constructed on the White House lawn. And I think it was Arnie Palmer who said that Eisenhower on a whole, did more to promote the game of golf than any other single person. Although very few if any of us knew him personally, and disregarding party affiliations, I am sure we have to agree with Palmer.

It was indeed a pleasure and a privilege to have known Norman Johnson, and I am sure many of you who knew him, share in my feelings. He was dedicated and sincere in his beliefs and desires in all phases related to golf. He was active in both National and local levels. He was the 18th president of the Golf Course Superintendents Association of America. He was secretary of the Midwest at the very first meeting I attended in 1946. He founded and initiated the bull Sheet in 1947. I remember his initial copy which was printed on a very common piece of paper. Since then the Bull sheet has developed into one of the finest, if not the finest, chapter paper in the country. In fact I believe the Bull Sheet is better known than the Midwest itself. In a conversation with another local chapter recently when the Midwest was mentioned, two of their members questioned if this was the association that put out the Bull Sheet. A real tribute to Norm Johnson.

Personally I felt he had many fine qualities not only during his term as president of the National, but equally as well during his career as a superintendent. He had the qualities of humanity, tolerance, and the outstanding ability to work with others and gain their trust and cooperation. And I will always remember him for the recognition he showed his fellow superintendents. Grass will continue to grow and be green in color, disease and other occupational hazards will persist, and the world will go on, but Norman C. Johnson will be missed. It's been my pleasure to have lived in his era and known him.

Ed Wollenberg, President

MAGCS FIRST GOLF OUTING 1969

Mr. Wally Piepers, Superintendent, Flossmoor Country Club, had his golf course in beautiful condition for the outing. Mr. Piepers' fairways are some of the finest I have ever seen.

Low Gross was won by Robert Kronn with a 79. 28 prizes were given out to the following winners in the Peoria system.

Low Net - Bill Hargrave, 62 Wayne Piel, 72 Dave Mote, 63 Dominic Grotti, 73 Harold Michaels, 73 Jerry Hanko, 65 Jim Kingfield, 64 Bert Jannes, 73 Oscar Miles, 73 Harold King, 64 Bob Dickinson, 73 Roger La Rochelle, 64 Richard Kronn, 73 Russ Reed, 68 Jack Hanson, 74 O. Harris, 69 Keith Fuch, 70 Vern Roscher, 74 Carl Hopphon, 75 John Nicoti, 70 Peter Voykin, 70 Robert Hessler, 75 Mike Mulvihill, 71 Norm Kramer, 75 Roy Schmitz, 71 Dan Tagger, 75 C. Mitchell, 75 John Brenner, 72 Bill Kraft, 72

All ties were settled by cutting cards. MAGCS Golf Chairman – Joe Canale.

NORM KRAMER, GCSAA VICE-PRESIDENT VISITS THE MAGCS MAY MEETING HELD AT FLOSSMOOR C. C.

Mr. Kramer reported to us a few decisions made by the recent GCSAA Board Meeting held in Atlantic City, N. J. (May 7-11, 1969).

Norm said that expansion of the GCSAA Magazine has been done by hiring a new girl to work in the office and putting managing editor Tom O'Hara on the road more to do Public Relations work.

He also announced that Buchen & Co. would no longer be working for the GCSAA. Norm praised Buchen & Co. for the fine guide lines set up by them for the GCSAA.

An Educational Director will be hired by GCSAA. Responsibilities are already up to 15 pages for the individual.

Pace and Co. of Houston, Texas to be the GCSAA, Show and Conference co-ordinator, taking this job off of Headquarters.

Budget for the GCSAA is reaching the \$500,000 mark.

A pension plan is being studied for Headquarters employees of the GCSAA.

A chance to gain fame, but little fortune. Write an article for the "Bull Sheet."

DR. FRED GRAU IS THE NEW EXECUTIVE DIRECTOR OF THE PENN. TURFGRASS COUNCIL

Don Krigger, President of the Pennsylvania Turfgrass Council, announces the appointment of Dr. Fred V. Grau, recent winner of the U.S.G.A. Green Section Award, to the post of Executive Director of the Pennsylvania Turfgrass Council. This is the position long held by the late Professor Emeritus H. B. Musser, pioneer leader in turfgrass research and education, also a Green Section Award winner.

Dr. Grau assumes leadership not only of the Council but, by virtue of previous appointment by Mr. Krigger, he is Chairman of "The H. B. Musser Turfgrass Fellowship." This is an effort designed to raise a large fund which will yield income to support Turfgrass Fellowships leading to the Ph.D. degree. Dr. Grau soon will release an announcement on this subject.

In accepting the post of Executive Director Dr. Grau said, "The Pennsylvania Turfgrass Council will seek to bring even closer together all Turfgrass interests in the Commonwealth so that there will be one unified voice speaking for this very important phase of modern living."

Dr. Grau will be remembered by his many friends for his part in the development of Merion bluegrass, Meyer Zoysia, U-3 bermuda, and for his efforts to achieve higher education in turfgrass. With the late Mrs. Grau they achieved lasting fame in discovering and developing Penngift crownvetch which beautifies many highway slopes in the United States.

Dr. Grau's career in turfgrass started in June 1927 when he entered the University of Nebraska and began work on the turf plots under a U.S.G.A. Green Section grant. He earned the degree of Master of Science at the University of Maryland in 1933, then continued to earn the Ph.D. degree in 1935.

After ten years at Penn State as Extension Agronomist, working closely with Professor Musser, he was named Director of the U.S.G.A. Green Section. From 1953 to 1965 he was consultant to West Point Products, to Nitroform Agricultural Chemicals, and to Hercules, Inc. Since 1965 he has devoted full time to Grasslyn, Inc., the firm that he and Mrs. Grau created, founder of the crownvetch industry. There is not a phase of the Turfgrass Industry in which Dr. Grau has not made his influence felt. He has inspired many young men to choose Turf as their life's work. He is eminently qualified for the work ahead of him in the Pennsylvania Turfgrass Council.

He is a Life Member of the American Society of Agronomy and of the American Association for the Advancement of Science. In 1946 he and Professor Musser succeeded in having A.S.A. accept and recognize Turf as an integral part of agriculture and of the Society. He holds Honorary Memberships in several Golf Course Superintendents Associations and in 1954 was accorded the Distinguished Service Tribute by the Golf Course Superintendents Association of America. The U.S.G.A. Green Section Award was given to him January 24, 1969.

In carrying out his new and expanded duties for the love of Turf, Dr. Grau will divide his time between his business office in College Park, Maryland, and his farms near State College, Pennsylvania. The new address of the office of Executive Director, Pennsylvania Turfgrass Council, will be, until further notice, "General Delivery, State College, Pennsylvania 16801."



What the USGA Wants in an Open Course

By Joseph C. Dey, Jr.

Executive Director, United States Golf Association

The ideal Open course, in the estimation of the USGA, is one that provides a test of Championship skill without being tricky or unfair. Emphasis is placed on accuracy, not only in the green area but from the tee onward.

The rough should be of a depth and cut that rewards good shots and requires testing recoveries from poor shots. No specific height of grass is required since this is dependent on the density and toughness of turf in the rough. Treatment of rough around each green depends upon the character of the green, its size and difficulty of the approach.

These heights and widths of cut represent average treatment for the Open, but are not hard and fast:

	Height	Width
Fairway	1/2 - 3/4 in.	30 - 40 yd.
Collar off fairway	2 in.	4 - 6 ft.
Rough	4 - 5 in.	-
Green	3/16 in.	-
Collar off green	1/2 - 3/4 in.	30 - 36 in.
Light rough off collar	2 in.	2 - 6 ft.

Here are the USGA's requirements for tees, fairways, greens and bunkers:

Tees: Firm, dry turf is essential to stance. The teeing areas should be cut at approximately the same height as fairways.

Fairways: Should be maintained with minimum quantities of water to provide firm turf. Hard and soft spots should be avoided. Fluffiness, which can be minimized by combing and brushing, is undesirable because it tends to produce a "floater" ball. Cut should be made with the purpose of providing dense, firm turf with no clover, weeds or grass blades.

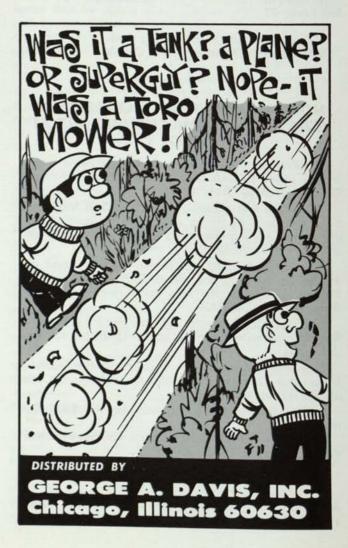
Greens: Cut may be as high as one-fourth inch where greens are severely undulating to prevent possible movement of the ball on a slope when the player takes his stance. Daily mowing is required for several weeks prior to and during the Open. Greens should be fast, not slippery. Irrigation should be uniform and only sufficient to maintain growth and color. Firmness is a must. Matted, fluffy turf should be corrected by combing, brushing and topdressing well in advance of the competition. Greens should not hold easily for a poorly played approach shot, but shots played with good backspin should hold reasonably well.

In locating cups, the first consideration is to what will give fair results. The two- or three-foot radius within the cup should be reasonably level. In no case should a cup be located in a tricky spot or on a sharp slope where a ball can gather speed (a player above the hole should be able to putt boldly for it).

Bunkers: A course grade of sand is preferable. If fresh sand is put in a trap this should come a month before the Championship so that it becomes well settled. The USGA doesn't permit use of a rake that puts large furrows in the sand.

To assist in uniform application of the Rules of Golf, the USGA seeks to meticulously define out of bounds, limits of water hazards and ground under repair.

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RECORD'S RECORD By Lee Record USGA Green Section Mid-Continent Agronomist

What is the present labor situation at your golf course? How many men did you carry last winter? What will it take to maintain your course in 1970? Look ahead, plan today for tomorrow's maintenance program.

To meet the demands of present day golf course maintenance, the most modern and up-to-date equipment is neded. Maintenance equipment alone will not be the answer at every course; administration, programming, adequate budgets, manpower, responsibility and a host of other elements will be necessary.

The following suggested maintenance equipment list may not be adequate at many golf courses, depending upon the degree of maintenance. This list should, however, be adequate for the majority of 18-hole courses.

Greens and Tees

- 6 to 8 putting green mowers
- 2 power aerators
- 1 vertical mower
- 1 power drag mat
- 1 power topdresser
- 1 power thatcher
- 1 power spiker
- 1 power sprayer (fungicides)
- 1 proportioner
- 2 rotary fertilizer spreaders
- 2 triplex mowers

Fairways and Roughs

- 2 seven gang hydraulic tractors and mowers
- 1 fairway aerator
- 1 fairway thatcher
- 1 fairway sweeper
- 1 power sprayer
- (herbicides) 1 rotary fertilizer
- spreader

1 5-gang mower (roughs) 1 3-gang roller

General Equipment

- 1 or 2 dump body golf tractors
- 2 general construction PTO tractors
- 1 jeep, pickup truck, etc.
- 1 dump truck (5 ton min.)
- 1 snow plow
- 1 front end loader and backhoe
- 1 power sod cutter
- 1 power saw
- 1 power stump cutter
- 1 power soil shredder
- 1 powered hand sweeper
- 2 powered leaf blowers
- 1 water ballast roller
- 6 rotary trimmer mowers
- 3 hand trimmer mowers
- 2 general purpose power reel mowers
- 3 gas powered runabouts

Miscellaneous Hand Equipment

(This list will go from A to Z.)

Axes, burners, crow bar, duster, cup cutter, wheelbarrow, ladder, sod edgers, sod lifters, shovels, rakes, funnels, spade, picks, forks, jacks, pruners, tree saws, traps (animal), pumps, gas cans, scales, pullers, hose, bamboo poles, soil testers, soil probe.

Tools For Repair Of:

All power equipment (trucks, tractors, mowers, etc.), plumbing, drains, electrical equipment, sewers, roadways, water systems, painting and wood working repairs, etc.

Shop Equipment

Lapping machine, air compressor, stream cleaner, table saw, bench grinders, bed knife grinder, reel knife grinder, pipe threader, paint sprayer, welder, drill press, vises, arbor press, work benches.

Irrigation Equipment

Pumping station and number of heads will be determined by the superintendent at each individual course.

This suggested list has only touched a few of the many odds and ends and pieces of equipment needed. If we have omitted a piece of equipment which you feel is necessary, by all means add it to the list.

A maintenance building should meet the following requirements:

- Superintendent's office (desk, file cabinets, adding machine, etc.)
- 2. Toilet facilities (showers, lockers, etc.)
- 3. Adequate heating and ventilation
- 4. Paint spraying room
- 5. Herbicide-fungicide, etc. storage room
- 6. Fertilizer storage area
- 7. Adequate storage area for all equipment
- 8. Adequate maintenance area.

Also in conjunction with the main maintenance building, an additional storage building is essential for the storing and mixing of topdressing material. Top dressing should be kept in a dry area so that it will be available at any time of the season. A twoyear supply should be stored at all times.

If we have the necessary equipment and maintenance building, how many men will be required to keep the equipment rolling for the necessary turf maintenance? We suggest the following personnel be considered for the average 18-hole golf course.

- 1 Superintendent (year round employment)
- Assistant Superintendent or Foreman (year round employment)
- 1 Mechanic (year round employment)
- 3 Laborers (year round employment)
- 3 Laborers to be hired at the beginning of the outside maintenance program to be carried through until fall maintenance is completed.
- 2 Laborers to be hired as summer help.
- 11 men total.

Regardless of the maintenance building and modern equipment; the work load cannot be carried out unless an adequate work force is available; a work force that can be depended on, day in and day out, men with responsibility to themselves, to the golf course they are working for and to the equipment they are handling.

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Schools of Golf and Landscape Operations

By Jerry Cheesman Golf Course Operations

The Lake City Junior College School of Golf Course Operations, Lake City, Fla., is a special two-year program designed to educate and train men for careers in golf course operations. Stress is placed on a combination of scientific principles and practical applications.

On the Job Training

Students spend one summer in selected field locations training under leading golf course superintendents and specialists in other phases of the Turf Industry. Instructors are National leaders in the Golf and Turf Industries.

Career Opportunities

Successful graduates of the Lake City Junior College School of Golf Course Operations will be especially qualified to enter careers in the Golf Course Industry as Assistant Superintendents, with possibilities of future advancement to Superintendent of Golf Operations, Golf Course Construction Foreman, industry technologists, sales representatives and specialists in allied fields of turf including sod production, highway operations, athletic facilities, pest control services, and lawn, garden and landscape businesses.

Landscape Operations

A second special School of Landscape Operations is also offered at Lake City. This program trains students for jobs in the Landscape Service and Sales Industry. Courses featured include plant indentification, growing and utilizing plants, landscape installation and maintenance services, and labor and business management.

Degrees and Placement

Graduates receive the Associate of Science degree in either Golf Course Operations or Landscape Operations. A job placement bureau is operated as a service to graduates.

Location

Fifty miles west of Jacksonville, Fla., near Interstate 10, Lake City is a small college community of approximately 15,000 population. The campus is adorned with attractive new buildings blending into the outline of tall, southern pines.

Persons seeking more information on the Lake City Schools should contact Mr. Jerry Cheesman, Dept. of Golf & Landscape Operations, Lake City Junior College, Lake City, Florida 32055.

MURPHY'S LAWS

(from the HSAF Newsletter)

- In any field of endeavor, anything that can go wrong, will go wrong.
- Left to themselves, things always go from bad to worse.
- If there is a possibility of several things going wrong, the one that will go wrong is the one that will do the most damage.
- If you have several jobs to do in the day and you save the easiest one for last, it will give you the most trouble.
- 5. If everything seems to be going well, you have obviously overlooked something.

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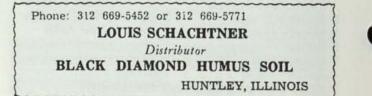
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Several cases of poisoning have been reported, including fatalities. Many reports of peripheral neuritis and skin rash following exposure to these products was noted. Other symptoms include weakness of chest muscles associated with pneumonia and hematuria; lethargy with poor muscle tone; ataxia, weakness and urinary frequency; irritability; lethargy; and increase or decrease of temperature. Most persons with symptoms also vomit.

So — let's not use our bare hands to unplug nozzles and screens and other such careless acts, nor allow children or pets to play long in areas treated only a short time before.



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Do You Talk to Your Trees? As you are out in the fields planting, shearing, mowing, etc., do you communicate with your trees? Do you tell them out loud and clear they are the most beautiful trees you have ever seen and that they will all become true specimen Christmas trees?

If you don't you are not using proper cultural methods. Science has just disclosed that trees have an emotional nervous system and respond to kind words. Conversely, trees that are told they are not beautiful believe it and develop into hideous plants.

Dug trees should never be dropped on the root ball of earth because this is a shock to the emotional system of the trees and the plants will not do well after planting.

How many times have you seen someone have phenominal success in planting flowers? No matter what they plant or how or where, they all seem to do well. They could plant a stick and it would grow. We say of these people, "They have a green thumb." Other people plant the same flowers under the same conditions and they all die. Now the reason for this we know: the people with "green thumbs" love their plants and tell them so. They tell them they will become gorgeous, the plants believe it and become so.

Now as you work with your trees this coming season communicate with them, tell them you have never seen such beautiful trees and repeat the message every day you are in the field. If you have some plants you don't care for, instead of praise, cuss and condemn and they will develop into ugly plants. (312) 349-8484

The writer has two plots of trees undergoing this scientific research, one block is praised every time he is in the field; the other plot is cussed. It will be several years until we can truly evaluate the results.

NON-ORGANIC FERTILIZERS CAN BE DEADLY

Dallas (UPI)—American youngsters eat less spinach than other children around the world—and it may save their lives.

In a paper presented to the 135th meeting of the American Association for the Advancement of science, Dr. Barry Commoner said that nitrates in spinach has poisoned infants in Germany and France. Commoner is director of the Center for the Biology of Natural Systems at Washington University.

His paper said evidence of nitrogen poison has been found in drinking water, especially in Southern California. In tests conducted at some 800 water wells in Southern California, Commoner found the nitrogen level in 88 to be above the limits set by the U.S. Public Health Service.

The rise in the amount of nitrogen found in food and water is due to the increased use of nonorganic fertilizers by farmers, said Commoner. Nitrate fertilizers are less expensive than their organic counterparts and also produce a larger crop yield.

But, says Commoner, they also are poisonous and unless something is done to stop their use, the world's population will suffer from an increased food supply instead of benefiting by it.

INSECT PESTS OF MAPLE TREES by Stanley Rachesky Entomologist, University of Illinois

Cottony Maple Scale — is a very common insect pest of maple. It is found on several species of maple trees plus on a variety of other plants. It can be easily identified as it resembles a string of popcorn wrapped around a branch. Heavily infested trees usually lose some twigs, branches or limbs to this insect. Occasionally the entire tree may succumb. Branches and foliage of the tree sometimes look black. This is caused by the great secretions of honeydew produced by the scale continuously dripping on the lower branches of the tree, automobiles and sidewalks. Growing in this secretion may be a sooty mold causing it to appear black.

Control can be accomplished in two ways: (1) In late winter an emulsifiable dormant oil spray can be used or (2) spray with Malathion in early July. Illinois is a long state with a difference of about four weeks in the growing season. Southern Illinois would spray probably during the last weeks of June while northern Illinois the last weeks of July. Timing is very important when spraying for scales. The only time control with insecticides is successful is when they are in the crawling stage.

The Green-Striped Maple Worm – is a caterpillar that will eat entire leaves of the tree. Occasionally entire defoliation of the tree will occur. The caterpillar is about two inches long and is yellowish green in color with green stripes running lengthwise along its back. For control use Carbaryl (Sevin) as soon as the worms are seen feeding.

An insect called the **Pigeon tremex** is found on a variety of trees and shrubs including maple. Trees found infested by this insect, nine times out of ten, are probably dead or in a dying condition and should be removed. However, let's not blame the insect for causing the tree to die. Trees that are diseased or that are already in a dying condition are the trees in which this insect will be found.

This insect is about two inches long with a redish head and body and resemble wasplike sawflies. The female lays her eggs by boring a hole in the trunk of the maple tree. No chemical control is recommended.

The pigeon tremex is usually biologically controlled by parasitic wasps. The female parasitic wasp drills a hole with fantastic accuracy where a pigeon tremex grub tunnel is. There an egg from the wasp is laid, hatched into a larva which finds the tremex grub and kills it.

Aphids – are often a cause of tremendous problems in residential areas. The insects will suck the sap from the underside of the leaves and secrete unbelievable quantities of honeydew that will wet sidewalks, streets, parked cars, etc. The aphid itself usually will not cause enough damage to large trees to justify the cost of spraying. Spraying can be justified only by the individual concerned if they become an unbearable nuisance. Control can be accomplished by spraying with Malathion.

The **flat-headed apple tree borer** – will occasionally be found in maple trees. Trees that are in a weakened condition by transplanting, hot dry weather, damage, etc., can be attacked by borers. The adult beetles are metallic colored about one-half inch long. A well fertilized healthy tree is the best defense against borers. Newly set trees should be wrapped with heavy paper the first two years. DDT is the insecticide of choice for borer protection. Follow label directions for application rates.

Maple bladder gall mite – can be found on the top sides of maple leaves. The young galls are green, as they get older they turn red and finally black. They resemble tiny pimple-like protrusions on the leaf. This particular problem is very common, however, it is doubtful whether they cause any damage to the tree other than make the leaves look unsightly. Control can be accomplished if desired by using Malathion after the buds on the maple are swollen but before new leaves appear in the spring. Sprays that are applied after the gall develops are useless. Timing of application is as important for control of galls as for the control of scales.

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For prices and name of nearest distributor, write BORDEN INC / Chemical Division, Turf Products, Box G, Columbus, Ohio 43203.