

Two tributes to O. J. Noer

Editor's Note: Although our September issue featured O. J. Noer, he is such an integral part of our history and heritage that two "new" pieces on O. J. appear below. They were written by Fred Grau and Herb Graffis, two giants in the golf turf industry. They appeared in Vol. 40, No. 8 of "GOLFDOM," August 1966. Thanks to Walt Stepanik for the material.

By FRED V. GRAU

When the brave Norwegian heart of O. J. Noer stopped beating, there came to an abrupt end a unique and fascinating legend. In the history of turf there has been nothing like it anywhere. Revered by golf course superintendents across the land, he also commanded the respect of the scientific world concerned with soils, plant nutrition and grass ills.

Photography was almost a way of life with O. J. His color slides are

known wherever turfgrass meetings and conferences have been held. He seemed to have an uncanny knack of being there when the action took place.

To many golf course superintendents he was their counselor in good times and bad. A buddy in trouble might mean a flying trip across the country to soothe the spirit and to cool things off.

The familiar term "Doc" Noer testifies eloquently to the reverence in which he was held. Many times over he had earned a doctorate degree without having it conferred. Once started on his illustrious career, there simply was

no time for the details of an advanced college degree.

Words cannot restore him to the turfgrass world but they give some solace and help to recall the indomitable spirit which carried him and his colleagues across a desert of doubt and helped to satisfy the thirst for knowledge. The Foundation which bears his name will continue the Noer tradition for the ultimate benefit of future generations.

He passed this way but once—we are glad that we were here to see and work with him. He has earned his Rest.



O. J. Noer

By HERB GRAFFIS

O. J. Noer, 75, died July 12 in Milwaukee, of cancer, after 13 weeks hospitalization. Noer, for years agronomist with the Milwaukee Sewerage Commission, was the most widely known turf expert. He visited the majority of courses in the U. S. and worked in a consulting capacity with their superintendents and officials.

After his retirement from the Milorganite organization he was associated with the late Dick Wilson as turf advisor then went with Robert Trent Jones, doing the turf experting on Jones' architectural jobs in the U.S. and abroad. He was active in the Jones organization until his terminal illness.

Oyvind Juul Noer was born in Stoughton, Wis. His father was a physician. He attended schools in Wisconsin and Germany prior to entering the University of Wisconsin where

he graduated in 1912 with a B.S. in soils. He later taught general and analytical chemistry at the University of Wisconsin. He was overseas in World War I as a Captain in Chemical Warfare Service. He also taught chemistry in service schools in France and England.

He was soil chemist for the Great Northern Railroad, State Soil Chemist for Wisconsin and sales manager of the truck division of the Stoughton Wagon Co. before he returned to the university to do graduate work, helped in part by a fellowship created by the Milwaukee Sewerage Commission for research in Milorganite.

Noer spoke at far more turf conferences than any other expert. He popularized colored photographs as lecture material and as progress reports and in making photography a tool of course management showed superintendents how to save time and money and have available data for expert studies and recommendations. To Noer, more than to any other man, today's standard of golf turf is due. He received the USGA Green Section award and was honored by golf course equipment and supply companies that established the O. J. Noer Turf Foundation financing research and scholarships. The Golf Course Superintendents Association at its 1960 annual meeting presented a program feature of his career, illustrated by numerous pictures.

He was one of the best technical writers in any field of applied science as GOLFDOM's staff and its readers can testify from the handling and utilization of many valuable articles he wrote for GOLFDOM. He was one of the greatest all-around men in golf business. A comparative appraisal of Noer's service to golf would show him as having contributed more to enjoyment and better scoring in the game than any of the celebrated players.

Among Noer's innumerable valuable services to golf was his preservation and development of the strain of bent which, after a devious history ranging from the present site of the Pentagon building at Washington to Beechmont CC at Cleveland, then to a nursery operated by "Blondie" Wilson and Alan Bland at Toronto, has appeared as one of the superior putting surfaces. Charley Wilson, Noer's successor at Milwaukee Sewerage Commission suggests the strain be labeled "Noer bent."

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**Preserving The Past And
Planning For The Future**

**THE GOLF
FOUNDATION OF
WISCONSIN — ITS
FORMATION AND
DEVELOPMENT**

By Jack Reif, President



In the Spring of 1977 an idea sprung forth in the mind of one of the legends of golf in the State of Wisconsin, namely, FRANK WOODSIDE, who was elected to the Wisconsin Golf Hall of Fame in 1968. The idea centered upon the formation of an organization of organizations to preserve, promote and project the game of golf in the State of Wisconsin. Every golf involved organization was invited to attend an "exploratory" meeting held at the Ozaukee Country Club to help determine the need and possibility of establishing this all-encompassing organization that would be dedicated to promoting

the game of golf in Wisconsin. Evolving from this initial meeting was an overriding interest in determining a need for this type of organization. Additional meetings were scheduled which eventually led to the drafting of a charter constitution, the election of officers and the establishment of goals, purposes and objectives.

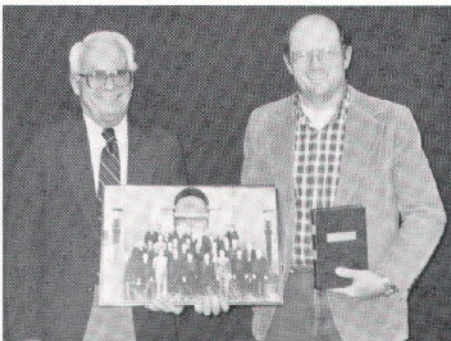
In June of 1978 the Constitution was ratified and the Federal IRS rendered a Non-Profit 501-C-3 Charitable Tax-Deductible status. The initial officers were elected with Woodside as President, Vice Presidents elected were BOB BRUE of the WPGA, TOM STOUTHAMER of WSGA, HAROLD "STRETCH" LUEDEMAN of GMCCA, JACQUIE PICARD of the WWPLGA; Secretary ROBERT BOLTZ of the WGCSA; Treasurer THOMAS KEATING of the WALHG and Directors WOODROW HENNING of the WPLA, THOMAS E. TESTWUIDE of NEWGA, and JOHN KNUTESON of the Evans Scholars. THOMAS P. CARROLL of North Hills Country Club was retained as General Counsel.

One of the first projects was to draft an appeal for contributions to go out to all golfers to help financially support the Golf Foundation of Wisconsin, with the funds to be directed to help establish a Golf Museum and Library and to possibly construct a "golf house" to house all of the major offices of golf associations in the State. Unfortunately, the direction and impetus supplied by the energies of Frank Woodside ceased with his untimely death in November of 1979.

The Golf Foundation floundered for two years without any active leadership until 1981 when the WSGA president, JACK REIF, requested a revision in the objectives of the GFW with new officers being elected and the Constitution expanded upon to include a Junior Division. TOM STOUTHAMER was elected GFW President and GENE HAAS, Executive Director of the WSGA, was elected Secretary/Treasurer. ARNOLD WALKER of the MCPLA and TOM BEFERA of the WPGA were elected Vice Presidents. A year-end invitational junior championship was inaugurated and held at the SentryWorld Golf Club in Stevens Point. Golf Clubs throughout the State were invited to join and con-

tributions were collected from interested golfers, thereby, enabling the GFW to initiate a very interesting and worthy golf championship for qualified juniors at Sentry-World.

In 1984, the GFW was again restructured to actively include more of the golf related associations to participate in the management and operating procedures of the GFW. JACK REIF of WSGA was elected GFW President and he immediately set about a program to develop a regional junior golf program that would involve instruction, informational materials and competitive programs for all interested junior golfers in the State of Wisconsin. DICK PEARSE, JAY LOHMILLER, and TOM STOUTHAMER of WSGA, MONROE MILLER of WGCSA, BERND STURM of WCMA, RAY RUPER of WPLA, KARLA DEMING of WWSGA, SUZI WIGGINS of the WWPLA, DENNIS TIZIANI, TOM KABLER and ALLAN MITCHELL of the WPGA were all added to the Board of Directors of the GFW. The goals and objectives of the GFW remain as high as ever, perhaps higher. At this time all golfers in the State are being called upon to support the GFW in its attempt to bring the game of golf to every interested young person in our state. We ask all of you to support this project in every possible way. We all know that golf is great...let's make it greater.



GFW President Jack Reif accepts museum and library gifts from WGCSA President Monroe S. Miller.

An advertisement for Flowables, a product line from Wacleary Chemical Corporation. The top half of the ad features six cylindrical containers of different sizes and colors, each with a label: SPOTRETE, 3336, EPROMOSAN, FLUP (UREA-FORM), LIMESTONE, and FUMATES. Below the containers, the word "FLOWABLES" is written in large, bold, black letters. Underneath that, in smaller text, it says "TOMORROW'S TECHNOLOGY TODAY". At the bottom of the ad, the company name "WACLEARY CHEMICAL CORPORATION" is printed in a bold, sans-serif font. Below the company name, the address "1049 SOMERSET ST., SOMERSET, N.J. 08873" and the phone number "(201) 247-8000" are listed.

Preserving Our Heritage GOLF COLLECTORS' SOCIETY — WHAT IS IT?

By Bill Sell

The Golf Collectors' Society, founded in 1970, now enjoys a membership of more than 1,000 men and women around the world who delight in sharing their interest in the collecting of golf artifacts.


The purpose of the society, unchanged since its founding, is to (a) introduce golf collectors to one another; (b) encourage them to meet and/or correspond; and (c) disseminate, through a Society "Bulletin," news and information which may be helpful in the pursuit of the hobby.

We emphasize that the Society is not a formal organization and other than a kindly volunteer who handles the finances, there are no officers.

As mentioned, a "Bulletin" is published, usually six issues a year. The manner in which the bulletin is written makes it enjoyable, hard-to-put-down, reading. An annual Membership Directory is distributed to all members. The annual subscription fee supports the cost of printing and mailing of these publications.

While the Society does not actively seek new members, we are receptive to the blandishments of those who may wish to join. Such applications should be sponsored by a current member in good standing. If such a member is unavailable, submit a short, informal statement of interest to Joe S.F. Murdoch, 638 Wagner Road, Lafayette Hill, PA 19444, and if accepted, he will act as your sponsor.

The philosophy that motivates us to band together is very simple: to share the fun of collecting golf items and learn a little about the grand history of the game. We have little sympathy for those who may wish to join the Society, or indeed, collect golfiana, for financial profit. The Society does not publish price lists, identification guides or catalogs, nor do we offer



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appraisal services. Individual members may wish to offer opinions on such matters but generally speaking, it has been found that such opinions vary individually.

The Society conducts a yearly mail auction for the benefit of whoever may wish to sell unwanted or duplicate material. A

member can nominate as many items as he or she chooses.

An annual Hickory Hackers Golf Tournament and meeting is held yearly, at different locations each year.

There are many Society chapters located around the world. However, Wisconsin does not have one.

Cutless Seminar

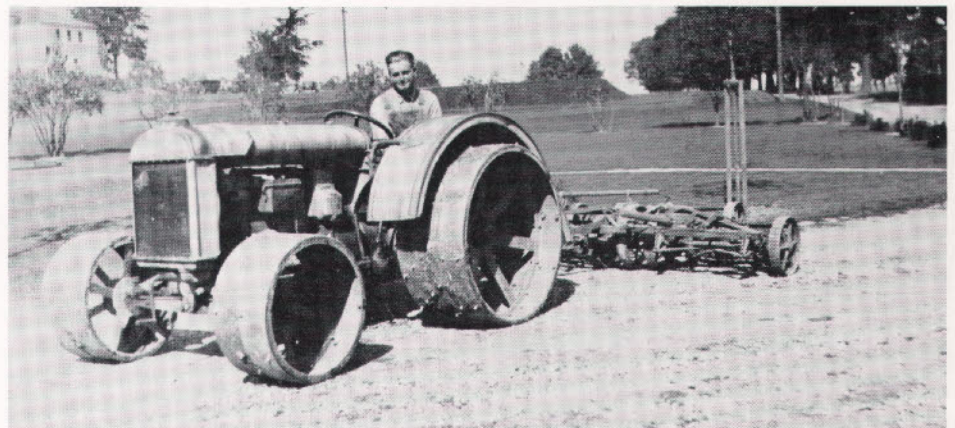
By Bruce Worzella

On October sixteenth, the Wisconsin Turf Equipment Corporation held a seminar at the West Bend Country Club on a new growth regulator. Forty-two golf course superintendents from around the state attended with numerous questions and interests.

The seminar included slides and taped interviews from four area golf course superintendents which willingly used this experimental chemical. Along with the inter-

views, Dick Baade from the Elanco Company added additional comments about the product being used throughout the country. Also, Mr. Mark Grundman, from the Northrup King Company, relayed some valuable data and results on different types of seed which included availability, longevity, and possible overseeding mixes.

The meeting was followed by golf, lunch, and a tour of an experimental fairway on which the product **Cutless** was used in conjunction with the overseeding of Perennial Ryegrass and Creeping Bentgrass.



Fairway mowing in the mid-1920's at Maple Bluff Country Club.

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There was some concern on this editor's part to include the three following articles with this "Heritage" issue of the GRASSROOTS. They were all written by John S. Bone, formerly of Blackhawk Country Club in Madison. My hesitation was caused by my concern that too much material about my own golf course might be misinterpreted by some as selfishness. However, since the "call" for historical materials relating to the WGCSA went out six months ago, limited items have come my way. So, since these articles do give an insight to the golf course management business in Wisconsin fifty to sixty years ago, I am including them. As one of my trusted colleagues and advisors pointed out, there is no good reason to withhold this historical information simply because the author and I have worked at the same Club.

John S. Bone was important to the WGCSA. He was one of the founders of our Association and was present at the UW "Greenkeeper" short course that precipitated our incorporation. He was a four term president of the WGCSA and was an Association leader for many years. There are a few older members at our Club who still speak highly of John.

The first article was printed in the September 1927 issue of GOLFDOM. The second article appeared in the March 1929 issue of the same journal. Both articles were sent to me by Janet Seagle, Librarian and Museum Curator for the United States Golf Association in Far Hills, N.J.

The last and shortest article appeared in a 1939 issue of THE DIVOT, the newsletter of Blackhawk Country Club, and is courtesy of Mrs. Jo Radder, editor of the newsletter. John obviously felt communication with the members of his Club was extremely important — some things never change. Several of the points he makes in his message to the membership indicate that principles of turf culture don't change much over the years either. He made points about height of cut, irrigation practices on Kentucky bluegrass and localized weather conditions that are just as appropriate today as they were in 1939.

Monroe S. Miller

Black Hawk's Green Making and Maintenance Methods

By F. B. Hadley, Green Chairman, and J. S. Bone, Greenkeeper, Black Hawk Country Club, Madison, Wisconsin

ALL persons who are charged with the responsibility of building and maintaining putting greens are constantly on the lookout for helpful suggestions. The writers have secured much help along this line from contributions in GOLFDOM. While we do not maintain that our practices are the best, we know that the results secured have been gratifying. Consequently at the suggestion of the editor, we are giving below a rather hurriedly composed outline of our methods.

Before starting work of any kind it is absolutely essential to have a labor force that can be relied upon. The more experienced a man is in golf course maintenance work, providing he uses his head, the more valuable he is to the greenkeeper. Without an adequate, well organized force, even the best greenkeeper is incapable of securing the desired results. Competent help is scarce, consequently the greenkeeper endeavors to help a good man when he finds him.

Here is a summary of the methods of an ideal team. The green chairman is a practical scientist and the greenkeeper a man with genius for turf culture methods. This association is one rare in golf, but of a type to bring joy to the hearts of the club members.

Note the emphasis they put on the element of labor. No matter how good the technique is, unless the staff is right, the results are disappointing.

opinion, than elevated greens with steeply sloping sides. They utterly spoil the appearance of the terrain and constitute an unnatural hazard that is not needed. Constructed elevations should be blended into the surroundings by making very gradual slopes, so as to deface nature to the least degree necessary. Grading includes a careful study of the surroundings to insure necessary surface drainage. It is desirable to allow several weeks to elapse after the grading is finished to permit the ground to settle.

Surfacing

This should take into consideration the soil

The procedure we follow in this work is given below, step by step in logical order of sequence and inches (1) grading, (2) surfacing, (3) planting, (4) mowing, (5) top-dressing, (6) water, and (7) weeding.

Grading

A sketch should be made for use as a guide, keeping in mind the desirability of altering the topography as little as possible. Nothing is more hideous, in our

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composition and texture. A heavy clay or other impervious soil must be covered with a soil containing humus. The addition of a considerable quantity of sand and the incorporation of a fertilizer containing available nitrogen for plant growth to the surface of the green is imperative. The top-soil is put in final shape by hand raking and when finished should be very fine, relatively loose, free of all lumps, roots, etc.

Planting

The bent grass sod is cut into rather small pieces by running it through an ordinary farm root cutter. If any clover or other undesirable plants are present in the sod, these should be sorted out. The stolons should be distributed as evenly as possible and in sufficient quantity to cover the ground well, thus avoiding gaps which are so liable to form tufts later. To keep the roots from drying out, they must be distributed over a small area at a time and covered as soon as possible. Enough top-dressing is applied just to cover the stolons and the surface is rolled at once and sprinkled. Sprinkling should be done by hand, rather than with a sprinkler attachment, to avoid washing the fine top-dressing mixture into ridges. This statement also applies to established greens during the first two or three days after top-dressing.

Mowing

The lawnmowers are put into use as soon as the grass has reached a height of about two inches. The grass is mowed every day thereafter. Sundays excepted, throughout the season. Preferably the mower should be run one day at an angle to the direction it was run the previous day, keeping in mind the advisability of cutting in rotation in four directions. This tends to keep the grass growing upright and to make the surface uniformly even. The mowers must be kept sharp to avoid tufting the grass—the bane of the golfer.

Top-Dressing

This is done as required to maintain the growth and condition of the grass and is as important as daily mowing. Among the reasons for top-dressing may be mentioned the following: (a) to protect the new stolons that grow laterally from near the base of the parent plant; (b) to furnish nourishment; (c) to fill any unevenness in the surface of the green. The top-dressing mixture which we are using has given splendid results in the past. It is composed of two parts compost, one part sand, with which is mixed for general use one and one-half pounds ammonia sulphate per 1,000 square feet of green. The ammonia sulphate content is varied to suit conditions. It is increased for spring and fall use and reduced for use in the summer and on newly planted greens.

Watering

Water makes available the plant foods in the soil by putting them in solution. The quantity of water needed will depend upon the season of the year, the nature of the soil, and the rainfall. We believe the matter of judicious watering is one of the most essential steps in establishing and maintaining a perfect bent grass green. It requires constant supervision and good judgment to obtain the best results from watering. The surface of a newly planted green should be kept moist at all times. This is accomplished by sprinkling daily until the ground is thoroughly saturated, but never to the extent that streams are formed, as they uncover the stolons and also leave the sur-

face of the green rough. For all sprinkling we believe a nozzle should be used that throws a fine spray, as the surface of a green becomes disfigured by too heavy a stream of water, which beats holes in the top-dressing and is likely to make little ditches.

We have solved the watering problem by employing a night man. He starts work at 7:00 p. m. and finishes at 4 a. m. His last duty is to turn on the sprinklers used to water the tees. These are allowed to run until the day force commences work in the morning. The statement that water and more water—though not in excess—is the only hope of keeping the grass green and growing is particularly pertinent to this discussion. Next season we plan to water the approaches to the greens.

Weeding

While it is possible to control weeds to some extent by applying an acid-reacting top-dressing, every putting green requires hand-weeding at least once a season. Messrs. Oakley and Fitts, in the *Green Section Bulletin* for July, 1927, state that the chief weed to fight in the latitude of Washington, D. C., is crab grass. This is also true in Wisconsin. The time to eradicate crab grass is when it first becomes more evident. One man can then remove more crab grass plants than can three men after the plants have started to branch. Crab grass is the greenkeeper's worst enemy and does more damage to greens than all other weeds combined.

Sand Must Contain No Lime

The sand which we have been using in our top-dressing mixture has recently been analyzed and found to contain nearly 18 per cent carbonates. This surprised and disconcerted us, as we were working under the impression that our sand carried little or no lime. It is a well established fact that lime is contra-indicated on the golf course, as it facilitates the growth of clover and weeds, both of which the greenkeeper is continually fighting. On the other hand, an acid-reacting top-dressing mixture inhibits the growth of these plants, yet stimulates the growth of bent grasses. A supply of quartz sand containing practically

no carbonates has now been secured, so we anticipate better results in the future.

Acid-Reacting Top-Soil Important

The black top-soil used for composting purposes is also subjected to chemical tests to determine its inorganic and organic matter composition. By this method we have been able to secure a soil high in organic matter (humus) yet carrying no carbonates (lime). With this information to guide us and a contract for a load of horse manure every day of the year for composting, we feel that the putting and fairway greens at the Black Hawk Country club should soon be as good as any in the country, as nature has provided a wonderfully fertile, well drained soil which only needs intelligent management to produce an ideal stand of the desirable grasses.

So far we have been fortunate in experiencing no damage from brown patch or other fungus diseases. Earthworms are a pest at times, but an application of corrosive sublimate (mercuric bichlorid) in solution has been an effective means of controlling them.

Planting Greens in Spring

We are convinced that the best time of the year to start work is in the late summer and early fall, the idea, of course, being to secure a good stand of bent before winter sets in. However, as every green chairman and greenkeeper knows, it is usually impossible to accomplish before snow flies all the work planned, so some of it must of necessity be postponed until spring. In southern Wisconsin excellent results have been secured with bent grass stolons planted in the spring. We tried this method on one green last season and another one this season. The 1926 work resulted in a green that was suitable for use just sixty days after the stolons were planted. This green now probably has the best putting surface and the most ideal stand of fine bent grass in this section. The green that was planted this spring was ready for play in practically the same length of time.

One of the big problems in connection with spring planted greens is fighting the weeds of all kinds which grow so rapidly under the ideal conditions for plant growth which must be maintained for the grass. This necessitates several hand weedings, but final results amply justify the expense.

MAINTENANCE POLICIES that make GOOD at Blackhawk

BY JOHN S. BONE

Blackhawk Country Club, Madison, Wis.

AS every greenkeeper has learned, it is impossible to follow entirely any hard and fast rules, for I can think of no business that is so governed by weather conditions as is ours. Each morning, we might say, presents its particular problems of adjusting plans to conditions.

To go into every detail of Blackhawk's methods of maintenance would not prove profitable, as we follow in a general way the accepted methods of present day practice.

Labor management we all recognize at once as one essential that if properly handled will go a long way in the solution of many of our other problems. We recognize that the quality and quantity of available workmen varies somewhat in different sections, and we find ourselves particularly fortunate at Blackhawk Country Club in being able to secure exceptionally good, reliable men, most of whom have been with us four, five, and six years. Each man has his own work for which he is trained and held responsible. In order to stay on our force a man must do

his work as directed, in a workmanly fashion, in a reasonable length of time, and show an interest in his work.

Report System Employed

Each man understands that he is expected to report to me anything that he may see on the course that is out of order or calls for my special attention. All our men are hired by the hour and receive pay for overtime whenever it is necessary to call on them for special work. Our rule is to treat our workmen as we would wish to be treated if we were in their places, and we have the respect and friendship of the entire force. One faultfinder can spoil a whole crew and the sooner we get rid of him the better.

Assaying Purchasing

Every greenkeeper should keep himself informed as to labor-saving machinery. The test of whether a club should purchase such machinery

is: will it do the work as well or better than we are able to do it by any other method at a real saving of time and labor, and: do we require the services of such a machine for a sufficient number of hours each year to justify the investment. If it meets these requirements we should purchase it by all means.

It is poor economy to try to make the old tractors or mowers or any other machine do after they have reached the stage when they are sure to give trouble instead of service. We believe it pays to give men good tools to work with and insist that they take proper care of them, which they are much more likely to do than if they are given poor ones.

Watering very properly suggests itself to us as of major importance, and I believe the only rule to govern this is the condition of the green itself. All greens on the same course do not require the same amount of water. Experience should teach us to tell immediately by the feel of the turf under our feet just what the water requirements of each green are.

As the edges of greens always dry out the most, especially on raised or banked greens, we make it a rule to sprinkle well outside the green itself.

Compost Practice

In regard to fertilizing greens I expect to be accused of being old-fashioned. We still believe in the good old compost pile and when I say old, I mean at least three years old, and right here is, in my opinion, why it has been so condemned lately. We might well expect to get all kinds of weeds and disease from compost only a year or less old. We make a pile each year, with the top wide and sloping to the center to hold water better, sufficiently large to meet the requirements of a year. This is made of horse manure and good top-soil in layers about a foot thick each, to a height of about six feet. If we expect to have good compost we must put good material into it. This is allowed to lie for a year, then turned under and mixed, taking care to leave the top wide and sloping toward the center each time it is turned, until the last before using when it is left with a crowning top to shed water. When we are ready to use this material it is screened and mixed in a common cement mixer ten parts compost with five of sand and from two to four pounds ammonium sulphate per 1,000 square feet of surface varied according to the season of the year. The screen and mixed are so placed that they run at the same time from one engine, and the compost is shoveled from the screen directly into the mixer. In this way we think we have reduced the labor cost about to the minimum. The first top-dressing is applied just as soon as it is fit in the spring, then again in from four to six weeks and so on according to the requirements of the greens.

I like to give the greens a late top-dressing which is rather heavy, as I think it sends them into the cold weather with lots of vitality and also makes a covering or mulch for the roots. For these same reasons and also because it has a decided tendency to produce that erectness of blade which is every greenkeeper's aim, I am strong for this system of fertilization.

Mowing Methods

Poor methods in mowing have been the very point where otherwise good work has brought disappointment to many a greenkeeper. After the first few cuttings in the spring, or just as soon as the grass begins to grow well, we set the mowers to cut three-sixteenths of an inch in height and keep them there until late fall. If one does not start cutting short early, the greens get grainy and matted or, in other words, the blades do not stand erect. When once we have this condition it is very hard to overcome it.

Every greenkeeper rejoices in the marked improvement in greens mowers that have come in recent years. I have no doubt that there are a

number of makes of nearly equal merit now on the market. The same applies to power green mowers, also. What I have said in regard to cutting greens refers entirely to creeping bent greens with which I am concerned.

Making a Complete Job

Ask any greenkeeper what his chief concern is and I suppose he would say his greens, and yet in order to make the thing complete and keep everyone happy we must maintain the same standards for fairways, tees, traps, bunkers, and rough. Just as a slight blemish may destroy an otherwise beautiful picture so to neglect anyone of these may have the same effect.

All greenkeepers are still looking for some modern Moses to lead them out of the wilderness in which they find themselves in dealing with brown-patch.

We have had no trouble in controlling brown-patch by using ten pounds of bichloride of mercury and three pounds of ammonium chloride dissolved in 50 gallons of water. Mix one-half gallons of this stock solution with 50 gallons of water. Fifty gallons to 500 square feet may be safely applied. This has not failed to stop each attack, although we had to use it two and in a few cases, three times on the same green during the season.

We hope some of our scientific men to whom

we owe so much may soon discover a real cure for this menace in our pet greens.

Make Changes Deliberately

No doubt Mr. Noer is correct in his suggestion that there is need for a revision of methods in greenkeeping, and the same thing is true in many other lines of business. I have sufficient confidence in the alertness and ability of the men engaged in this line to believe that every exigency will be met and each problem solved in time, and I prefer to make changes deliberately rather than rush from methods that are giving reasonably good results to new and untried methods, but I am always trying to maintain an open mind toward forward movements.

Our program for the coming season will follow much the same lines as that of the previous season except that, in view of the reports that are coming to us relative to the use of arsenate of lead, we plan to give it a thorough test on some of our greens. We also plan to do some experimental work in forestalling attacks of brown-patch by using light applications of the solution mentioned in this article.

In closing I would like to stress the importance of tidiness, a place for everything and everything in its place, each detail attended to just when it should be, always just a little ahead of our work instead of the work ahead of us.

THE DIVOT A CONTRIBUTION FROM MR. BONE

There are two items concerning golf course maintenance practices about which we feel our membership should be better informed in order to understand the reasons for and the justification of the program we have planned. We refer to height of cut for fairways, and fairway watering and watering in general.

First, in regard to height of cut for fairways. Unfortunately, the conditions that golfers find most to their liking are exactly the opposite to the conditions under which grasses thrive best. There have been many experiments conducted that prove conclusively that the root system is in direct proportion to the height of cut. Where the grass is kept real short the root system is poor and inadequate, and improves in proportion as we increase the height of cut. Primarily the fairways are to play golf on, but in order to add to the pleasure of playing we have to give some consideration to the welfare of the grass. It would seem to be foolish to spend money for fertilizer and watering and then nullify the results by too-close cutting. We do not intend to create the impression that we are changing to a more radical program in this matter, but to justify our present system of which there has been some criticism.

Another reason for using our present plan is that we leave sufficient grass to protect the roots from the sun's rays and to retard evaporation so as to conserve the moisture in the ground. Poor lies are caused by poor sod, the ball coming to rest in a spot not filled by grass but having grass all around it, making what we call "cuppy lies." We expect by carrying out our present program of fertilization, watering, and cutting, to overcome this condition and crowd out most of the dandelions, as well as to make the course attractive to look at.

Now some information about watering. According to rainfall statistics, a variation of

from two or three inches, and as high as 11 inches in 1930 between Madison and Milwaukee, occur in the growing season, that is, May, June, July, August and September; and very often what may seem to be a good shower in Madison may be only a few drops on the golf course and when we realize that a one-inch rainfall only wets loam soil to a depth of six inches and is equivalent to 27,154 gallons to one acre, and that grass uses from 500 to 700 tons of water in a growing season (equivalent to five to seven inches per acre), we may better realize that watering is a large subject. From this you can see that a 10- to 20-minute shower doesn't accomplish much as far as penetrating the soil is concerned, but prepares the surface to receive water artificially applied; so after a shower is the most logical time to sprinkle, as deep penetration is the important goal and we save in sprinkling costs what the shower has already accomplished.

Continual surface watering is bad practice as the grass roots stay at the surface where the moisture is and become shallow rooted and spindling. The ideal at which we aim is not to allow a dry area to form between the surface and the under soil.

It is just as harmful to overwater as to not water sufficiently. By overwatering we may so fill the soil with water as to exclude air, in which case grass will become yellow and sickly, and eventually die if such a condition is allowed to go on.

There is no end to this discussion of watering practices among men concerned with grass culture for the simple reason that there are so many different factors involved, such as kind of soil, amount of drainage, temperature, etc. As I see it, it's all a matter of good judgement, with constant watching of all indications to be able to decide from them what the requirements are.

(Signed) John S. Bone.



SELL IN HIS "SALAD" DAYS!

The following photograph shows WGCSA patriarch, sage and Past President Bill Sell when he was "green" and still working for a living. This photograph, taken early in the 1951 golf season, appeared in the program of the 26th Amateur Public Links Tournament that was held at the Brown Deer Park Golf Course. Bill was a member of the golf course crew and worked under "Links Custodian" Arnie Schaefer. In case you cannot tell, Bill is fifth from the left in the back row.

WGCSA ELECTION COMMITTEE REPORTS CAMPAIGN PROGRESS IS ON SCHEDULE

The WGCSA project to elect Bill Roberts to a directorship of the Golf Course Superintendents Association of America is on track and continues making arrangements for the GCSAA Convention and Show in Washington, D.C. The dates of the meeting are February 5 through February 13.

The activities to date have primarily been establishing contacts across the country to ask for support of Bill's candidacy. The names of these individuals have come mainly from WGCSA members, but others contacted include local and regional chapter officers, GCSAA past presidents and leaders in the national association. Once the list of delegates and alternates is available from GCSAA Headquarters, they will receive a letter from our chapter and a copy of October's Special Election Issue of the GRASSROOTS.

Roberts, taking advantage of every opportunity to meet GCSAA members in other states, has accepted several speaking engagements. He will be appearing at the Minnesota Conference, the Northwest Illinois Conference, the Midwest Turfgrass Conference and the North Central Turfgrass Exposition. His appearances are, quite obviously, non-political, but should help in establishing a stronger base of support in our part of the country.

Plans for the election itself in Washington, D.C. will involve as much contact with delegates and alternates as possible. This includes hosting a hospitality room in one of the hotels in the Convention area. The election committee has circulated a list asking for volunteers to help host the hospitality room.

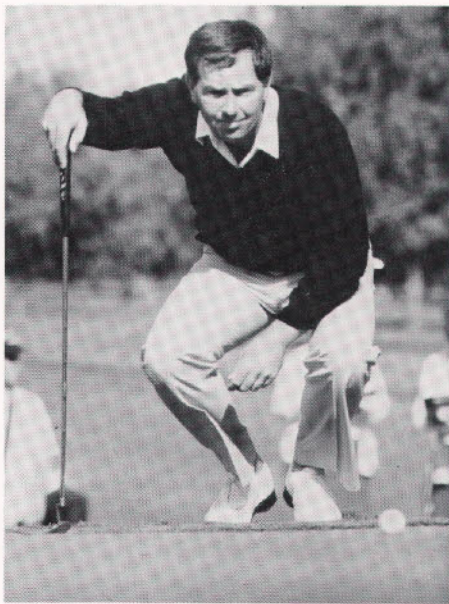
All WGCSA members who are planning to attend the Convention and Show in D.C. are asked to lend a helping hand. Although a lot of work has been completed, even more remains. The enthusiastic "go for it" attitude still prevails.

Looking Back

THE 1984 GMO

By Bob Erdahl

The Greater Milwaukee Open golf tournament at Tuckaway Country Club finally hit the big time in 1984. For years, a mid-July date forced the GMO to compete with the British Open for publicity and the top players. With this year's change to a mid-September tournament, top name players like Tom Watson participated in the GMO for the first time and helped make 1984 the best year ever for the GMO. The record four day crowds of over 100,000 spectators saw eventual winner Mark O'Meara battle Tom Watson over the perfectly conditioned Tuckaway C.C. golf course. Golf Course Superintendent Ray Knapp and his staff deserve congratulations from all WGCSA members for a job well done.



Mark O'Meara, the winner of the 1984 Greater Milwaukee Open. Photo courtesy of The Milwaukee Journal.

Let's listen to what some of the players on the PGA Tour had to say about the condition of Tuckaway C.C. Jay Haas remarked that, "The greens were very fast." Tom Watson agreed, adding "If there's a lot of wind this course can be tough. These greens are very fast so you'd better not be on the wrong side with your approach shot." GMO champion Mark O'Meara had these compliments; "This is the best shape I've ever seen Tuckaway in.

The people of Milwaukee can really be proud. These are the best conditions we play under in any tournament all year."

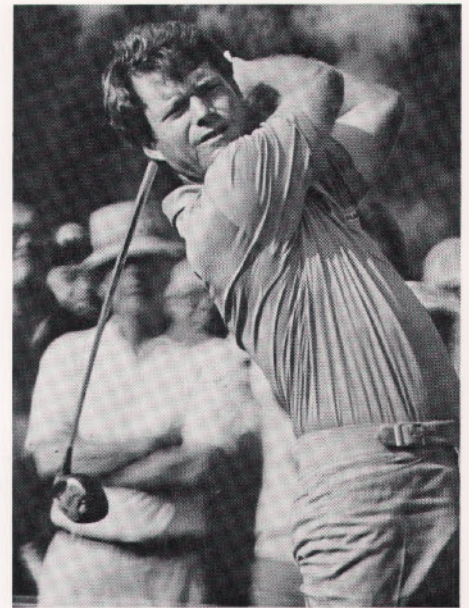
The exceptional conditions these pros are referring to included fairways cut at 0.50", tees mowed at 0.25", and greens shaved down to 0.10". The average stimpmeter reading for the greens on the first day of the tournament was 9'6". The PGA officials were so pleased with the greens that they told Ray to keep them just the way they were.

In addition to providing superb turf conditions, Ray undertook a major renovation program to upgrade Tuckaway's 65 sand traps prior to the GMO. All of the sand traps were recontoured and then filled with a total of 900 tons of sand.

When the GMO changed from July to September, some of Ray's concerns regarding the condition of his turf were alleviated by the cooler September weather. The change to September, however, meant that Ray would not have his well trained summer crew and the amount of daylight would be limited. The two problems were solved by hiring more employees to complete the work in less time and by recruiting employees from several southeastern Wisconsin golf courses to fill the skilled positions on the crew. On the final two days of the tournament, Ray's crew of 23 included 6 members of his regular staff, 7 recruits from other golf courses, and 10 temporary employees.

The aftermath of the GMO left Ray and his staff with several projects. First and foremost was to cut the 6" rough down so the Tuckaway members could once again enjoy a round of golf. In addition, the clubhouse lawn had to be resodded and the practice tees had to be renovated after the workout they received from the pros.

I'd like to close this article with some personal thoughts regarding the state of our profession. Golf course superintendents have long suffered an image problem within the golfing community. This problem really struck me while I was reading a newspaper article about the GMO. The article was written by the Milwaukee Journal Golf Editor and included the following statement, "The greens are faster this year because they are being triple cut twice a day." One can only guess as to the source of



First time GMO participant Tom Watson. Photo courtesy of The Milwaukee Journal.

such an exaggeration. One thing is certain, however, the reporter obviously did not have enough knowledge about the skill and dedication of the golf course superintendent to consider his comments to be of interest to his readers. A brief interview with Ray Knapp would have provided enough material for an entire article on how Tuckaway C.C. was prepared for the GMO.

Times are beginning to change, however. Following this year's U.S. Open, the co-superintendents at Winged Foot C.C. were introduced to the national television audience. It was a moment all of us had waited to see for many years, national recognition for the golf course superintendent's role in the game of golf. Even more important is the public relations campaign that the GCSAA has initiated to promote the image of the "Professional Superintendent." I wholeheartedly support this effort but feel it will not succeed unless every member of the WGCSA makes an individual commitment to promote themselves and our profession. Working together we can ensure a brighter future for all golf course superintendents.

Season's
Greetings

WGCSA/UW-MADISON: STRONG TIES SINCE 1930

The short course in Turf Management that was started in 1930 and that played a catalytic role in the founding of the WGCSA was continued until 1942. It was surprising to learn that it was sponsored jointly by the Wisconsin Greenkeepers Association and the Mid-West Greenkeeper Association. This short course was discontinued during the war years. It was resumed again, at the request of the Wisconsin Golf Course Superintendents Association and by O. J. Noer, in the spring of 1961. The dates were March 27, 28 and 29 of March. The meeting was held in the Wisconsin Center on the UW—Madison campus. Although not that many years ago, the room rate for a double room was \$2.50 and only \$1.75 for three to a room! Speakers at this meeting included O. J. Noer, L. E. Engelbert, Bill Daniel, Jim Holmes, D. C. Smith, Roger Thomas, Jim Marshall, G. W. Longnecker, George Ziegler, Mac Dana, John Voight, J. G. Dickson and R. T. Miller.

These meetings were held annually until 1967. At that time, into the present time, the decision was made to hold one-day regional conferences across the state.

Take a good look at this photograph, snapped at the 1961 meeting. Many of the speakers just noted are easy to recognize — O. J. Noer, for example, is in the front row. It is also easy to find Jim Love, Bill Sell, Walt Stepanik, Roger Larson, Frank Maurina, and Allan Kress. How many others can you find?

