V.P.I. EXT. SERVICE NOTICE

J.F. SHOULDERS-EXT. SPECIALIST V.P.I.

Gentlemen:

The unusually mild winter and much warmer temperatures than are usual for this time of year have caused much concern in regard to the timing of spring turf management practices. In view of this situation, we are giving you our thinking in regard to certain pertinent practices:

1. **Cultivation of Greens.** Normal cultivation practices of aeration and vertical mowing should be delayed until not more than a week earlier than usual for your location. Performances of these practices earlier in spring may result in the greens remaining open for an excessive period of time in event of cool or cold weather during the last of March and early April. Cultivation practices should not be omitted because preemergence crabgrass control is practiced. It is important, however, to use topdressing material that has been sterilized to kill weed seed to reduce the possibility of reinestation with crabgrass and other weeds. Refer to Virginia Tech Publication 591, "Cultivation of Putting Greens."

2. **Crabgrass Control.** If preemergence control is planned, apply the material as soon as possible. If mild weather continues, crabgrass germination may occur two to three weeks earlier than the average date for the area. Refer to Virginia Tech Publication C.S. 76, 1974 edition, “Chemical Control of Turfgrass Diseases and Turfgrass Weeds,” for information.

3. **Fertilization.** (a) Restrict nitrogen applications on bentgrass greens and bluegrass and/or fescue turf to an "as needed" basis, applying no more than 1 lb. per 1000 sq. ft. in a single application between now and mid-May. The application of iron on bentgrass greens will be helpful in maintaining color.

   (b) Apply potash in accordance with soil test results. Refer to Virginia Tech Publication MA 121 or 122 (Lime, Phosphate and Potash Guides), Publication 155 (Nitrogen Programs for Bentgrass Greens), and MA 120 (Nitrogen Programs for Bermudagrass Greens) for information.

4. **Insect Problems** may be more severe this spring due to greater winter survival than usual. Watch for signs of early insect activity. Refer to Virginia Tech C.S. 125, "Insects of Commercial Turfgrass,” 1974 edition, for control recommendations.

5. **Desiccation and Wilting.** Greens may be more susceptible than usual to damage from short dry periods this spring. Be alert for signs of wilting and water as necessary but plan your water program to encourage deep root growth rather than to impede it.

These are the major practices about which superintendents have voiced their concern in recent weeks. Copies of the publications to which I have referred should be available from the Virginia Tech Extension office in your city or county.

Sincerely yours,

J. F. Shoulders
Extension Specialist, Turf

A CASE TO PONDER

We used to make I-beam truck axles in our Cleveland plant, said Charles H. Smith Jr., Chairman, Sifco Industries Inc., in relating the story to Walter J. Cambell, editor of Industry Week.

"Recently, we learned our former customer was planning to buy axles in Japan or Spain. We decided we would try to get the business for our plant in Brazil.

Today, we are making those axles there for delivery to the U.S. We found we could buy the steel in Japan, ship it 12,000 miles to Brazil, unload and haul it 100 miles in-land to our plant, produce the axles, pack for export, ship them 6000 miles to the U.S., pay 10% duty, plus 10% import sur-charges since August 15th, pay inland freight in the U.S. and deliver them to the customer cheaper than we could make them in Cleveland, 5 miles from our steel source. Actually, we are now using Brazilian steel because the mills there meet the Japanese price”.

Now there’s a merry-go-round case of labor’s influence on the market!

Tri-Stater News
Ed Boyd, editor
Indiana, Kentucky, Illinois
PRESIDENT’S MESSAGE

In last months President’s Message I pointed out that individual members held certain responsibilities that each of us must assume if our association is to continue to be successful.

This month I would like to point out the numerous valuable benefits of membership within our Mid-Atlantic GCSAA.

1. Annual Mid-Atlantic Conference
2. National GCSAA International Conference and Turf Show
3. Monthly meetings at different golf courses.
4. Local and national life insurance policies
5. Local and national job referral service
6. Monthly Mid-Atlantic Newsletter
7. Monthly Golf Superintendent Magazine
8. Mid-Atlantic salary survey
9. Fraternal and family activities
10. Close ties with related organizations, university agronomy departments, and others interested in turf.

My listing your responsibilities and benefits of holding membership in the Mid-Atlantic are for the purpose of renewing your knowledge and, hopefully, enthusiasm to become continuously more active within our association. It is imperative that we all work harder to attend each and every monthly meeting. It is imperative that we bond together to strengthen our organization and jointly overcome the increasing pressures of the energy crisis and unforeseen shortages we are now facing. A superintendent, with the collective knowledge of over a hundred golf course superintendents, will forever learn and become a more knowledgeable and competent professional.

We are looking forward to the pleasure of your company in this elite group and sincerely hope that our relationship will be of long standing and mutually rewarding.

J. P. Barefoot - President

IT GOT AROUND

Last months cartoon “Ferti-Mow” was submitted for publication by Dr. A.J. Powell, V.P.I., after it was noticed in his presentation at the Virginia Turfgrass Council Conference this past January. After the cartoon appeared in the newsletter Tom Harris, G.L. Cornell sales representative, stated “I see you got the cartoon I gave George Thompson, Columbia C.C.”. It seems, after more inquiries, that the originator was an unknown member of Bethesda Country Club.

Did you know that small mowing equipment (source gives no number or types) when operated for 30 days, 8 hours per day, results in the equivalent of driving a car (type?) for 20,000 miles.

George M. Kozelnicky
Georgia Turf Grass News
HARK!

Women are becoming more and more interested in agricultural careers, and for the first time, the Turfgrass and Golf Course Mgt. program at the University of Maryland will become co-ed. Two young women, Joan Johnson of Perryville, Maryland and Nancy McCarrell, Carlisle, Pennsylvania, are being admitted to this curriculum. Applications from women desiring the other program options also show a marked increase. (Joan Johnson is presently working for Mike Liska at the West Shore C.C. in Harrisburg, Pa.)

DIETER’S FOURSOME IS NO MORE

Rita Dieter, the producer of the family, gave birth to their fourth boy this past March 7th. Lee states that both the baby and Rita are in good health and that, while he didn’t get his first daughter, he can always use the extra manpower on the golf course . . . glad someone has finally found a solution to labor shortages!

DATES TO REMEMBER

April Meeting
Watch for post card

Pro-Superintendent tournament
May 14th
Annapolis C.C.

American Sod Producers Assn. Conference
July 16, 17, 18
Sheraton Lanhan Hotel
Big Exhibits Show

APRIL SUPERINTENDENTS MEETING

Watch mail for post card. Tentatively we are to hold a joint meeting with our Virginia Tidewater group at the Golden Horseshoe golf course, Williamsburg, Va., on the third Tuesday - April 16th. Dave Harmon will be our host superintendent. As everything stands now we are looking into a bus charter and will finalize our plans and send out announcements and reservation cards as soon as possible.

ANGIE RE-ELECTED PRESIDENT M.T.C.

Angelo Cammarota, superintendent of Hobbit’s Glen golf course in Columbia, Maryland, will head up the officers and board of directors of the Maryland Turfgrass Council for his second straight term. This is a formidable challenge, and will continue to be so for some years to come, as the M.T.C. is a newly formed organization only in exsistence since April 1972.

Our neighboring Virginia and Pennsylvania Turfgrass councils have a commendable history behind them with achieved goals long in their past. If the M.T.C. is to move up to similar recognition we Marylanders must all pitch in and become a participating member of the M.T.C. To be active you should attend meetings when held and offer your assistance to any of the officers or board members when committee work is necessary. The M.T.C. will not grow prominent if your membership is limited to carrying a membership card in your wallet.

The Maryland Turfgrass Council encompasses all segments of the State’s turfgrass industry, including producers, installers, landscapers and golf course superintendents. Its aims are to promote turfgrass improvement and to encourage research and study with turfgrass in the state of Maryland. In the immediate future the M.T.C. will conduct a valuable survey of the turf in the state, divided into categories of types and use. Also during 1974 a field day will be held which will be announced in an up-coming newsletter.

1974 BOARD OF DIRECTORS

President Angelo Cammarota, superintendent Hobbit’s Glen golf course
Vice President Emory R. Patton, owner of the Turf Center Inc., in Potomac and Colesville, Md.
Treasurer Richard C. Moffett, Chief Agronomist at Brooklandville for the state highway admin, bureau of landscape architecture in the Md. dept. of transportation.
Secretary Dr. John R. Hall, Ext. Turf Mgt. specialist for the Univ. of Md.

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OFFICERS

Baltimore county — Clifford S. Case of Woodlawn, associated with the Cornell Chemical and Equipment Co. of Arbutus; William F. Kirwin, Jr., of Towson, associated with Smith-Kirwin, Inc., a landscape architecture planning firm; A. Richard (Alex) Watson of Sparrows Point, golf course superintendent at Sparrows Point Country Club.

Howard county — Frank H. Stevens of the Mount Hebron area at Ellicott City, vice-president of Operators Heat, Inc., in Baltimore and head of the firm’s Horticare division.

Montgomery county — Tom Harris of Derwood, sales representative for G. L. Cornell Company, a lawn equipment distributor at Gaithersburg; George B. Thompson of Gaithersburg, golf course superintendent at Columbia Country Club in Chevy Chase.

Eastern Shore — Parker Shirling of Centreville (Queen Annes county), manager for Maryland operations of Princeton Turf.

WHAT’S HAPPENING IN GOLF COURSE DEVELOPMENT

By Harry C. Eckhoff, Senior Consultant National Golf Foundation

During the past decade 3900 new golf courses including additions to existing facilities have opened for play throughout the United States. Golf course development is continuing at a very stable pace.

The number of new golf course openings during the 10 year span beginning with 1964 ranged from over 500 in 1965 to 266 in 1972 resulting in a yearly average of 390 courses. New course openings for the year just ended (1973) were 322. A breakdown of these openings by types reveals the following:

<table>
<thead>
<tr>
<th>TYPE</th>
<th>NEW COURSES</th>
<th>COURSE ADDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation</td>
<td>178</td>
<td>98</td>
</tr>
<tr>
<td>Executive</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>PAR-3</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>208</td>
<td>114</td>
</tr>
</tbody>
</table>

Operationally, golf courses fall into one of the following categories: private, semi-private/daily fee and municipal. An analysis of the 322 new course openings for 1973 follows:

<table>
<thead>
<tr>
<th>TYPE</th>
<th>PRIVATE</th>
<th>DAILY FEE</th>
<th>MUNICIPAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation</td>
<td>76 (28%)</td>
<td>149 (54%)</td>
<td>51 (18%)</td>
</tr>
<tr>
<td>Executive</td>
<td>3 (10%)</td>
<td>25 (83%)</td>
<td>2 (7%)</td>
</tr>
<tr>
<td>PAR-3</td>
<td>3 (18%)</td>
<td>8 (50%)</td>
<td>5 (32%)</td>
</tr>
</tbody>
</table>

A study of the golf facility growth pattern reveals that the development of short courses (par-3’s and executive layouts) is leveling off. During the last seven years the total for such new courses opening throughout the nation annually has ranged from 37 to 48 (was 46 in 1973).

The leading states with new golf course openings in 1973 were Ohio (34), Michigan (25), California (23), Florida (21), Texas (17), Colorado (16), Tennessee (14), Iowa (13) and North Carolina (11).

Probably the most startling statistic gleaned from the 10 year golf facility development study is the great increase of golf courses associated with land development projects. NGF records indicate that at the beginning of the 10 year span (during 1964) only 16.3% of all the golf courses built were a part of land sales, new planned towns, resort and convention facilities, etc. For 1973 the figure had soared to 40.68%.

And the rate is increasing. Of the total courses now under construction in the nation, 58.97% are reported to be a part of real estate ventures. States that report over 80% of new golf projects in this category include Arizona, Colorado, Florida and Oregon. For Alabama and California, it is 70% or more. A recent directory of Florida real estate developments lists the names of 85 projects where developers are now selling homes or condominiums associated with golf facilities that are already in play.

What’s Ahead

With 290 new golf courses or additions to existing facilities now in some stage of construction in the nation, 1974 should be another normal year for golf course development.
Florida leads with 31 golf courses now under construction followed by California and Texas each (26), Ohio (21), North Carolina (20), Colorado and Michigan each (14), Indiana and South Carolina each (11), Illinois and Washington each (8), Arizona (7) and Virginia (6).

At year's end, NGF files also contained a list of 292 prospective golf course developments. Regulation courses comprised 245 of the prospects; 23 were for executive type courses and 24 for par-3 layouts.

Leading states in the prospect list were California (29), Florida and Ohio (19), Colorado (18), Virginia (17), Michigan (15), Illinois (12), Arkansas, Indiana and North Carolina (11), Arizona and Pennsylvania (10).

As the nation's official clearing house for golf information, the National Golf Foundation has records on golf course growth since 1931. Each year all new courses are added to NGF's computerized national inventory of golf facilities.

For 1931 - the first year for which figures are available - there were 5691 golf courses of all types in play. In 1961 - thirty years later - the total was 6623 or a net increase of only about 16%. But during the period from 1961 through 1973 the inventory jumped to about 10,870 - a whopping increase of 64% in 12 years. A look at the relative growth of all types of golf courses in play from 1931 through 1973 reveals an interesting development.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>1931</th>
<th>1973</th>
<th>CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>4448</td>
<td>4825</td>
<td>+ 377</td>
</tr>
<tr>
<td>Daily Fee</td>
<td>700</td>
<td>4610</td>
<td>+ 3910</td>
</tr>
<tr>
<td>Municipal</td>
<td>543</td>
<td>1436</td>
<td>+ 893</td>
</tr>
<tr>
<td>Totals</td>
<td>5691</td>
<td>10,871</td>
<td>+ 5180</td>
</tr>
</tbody>
</table>

The tremendous growth in public golf courses reflected in the above figures brings clearly into focus the trend in golf course development in recent years. Golf no longer belongs solely to the few; it is Everyman's game.

Population growth, urbanization, more leisure time and increased personal income and mobility continue to put enormous pressure on public recreation facilities including golf courses. A good solution to the demand is more municipal courses owned and operated by cities, counties, states or regional park-recreation districts.

Why municipal golf courses? Practical politics and economics dictate such action.

Land costs and operating expenses, including rising taxes, make it increasingly difficult for member-owned clubs and private courses to financially survive in many communities.

More financial resources are available to municipalities. Among them are sale of general obligation or revenue bonds, federal grants, private development with leaseback and outright public or private donations. Among the federal programs that have assisted municipalities greatly in recent years are the Bureau of Outdoor Recreation (Department of Interior) fifty percent matching grants for land acquisition and development of outdoor recreation facilities and the federal surplus property program whereby certain federal lands are conveyed gratis when used for recreational purposes.

Current emphasis on recreation and open space has created more official and citizen support for golf/recreation complexes. Such complexes often include, in addition to a well designed and constructed golf course, tennis courts

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(sometimes lighted for night play), swimming pools, artificial ice skating rinks, playground and picnic areas, a community center building, camping, hiking, nature study and sometimes ski areas.

All the above listed factors are making it easier to sell a municipal golf course proposal to the public. While many new municipal golf courses have been built in recent years, NGF studies reveal there is still an enormous need for more public golf facilities in numerous areas throughout the nation.

Providing assistance in the planning and development of golf courses is one of the principal functions of the National Golf Foundation. Highly trained NGF facility development consultants are available to assist golf course planning groups in making feasibility studies to ascertain their need for golf and outlining a plan of action including methods of financing and operation. Facility development consultants are located at eight strategic locations throughout the country. For further information on these services contact Don Rossi, Executive Director, National Golf Foundation, 707 Merchandise Mart, Chicago, Illinois 60654.

Harry C. Eckhoff
1500 Arlington Blvd.
Arlington, Va. 22209
phone 703/528-4336

Released January 1974

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WHY ARE SOIL TESTS NECESSARY?

During the coming years we will be facing a continuing shortage of raw materials necessary for the formation of all fertilizers. With this in mind we behoove us all to make use of our university soil labs to determine what specifically our soil requirements will be for all areas of the golf course and club grounds.

In the future soil tests will be used to guide against over-application of fertilizer or eliminate unnecessary amounts of N, P, and K altogether. A soil test reveals your soil texture pH, available magnesium, phosphorus, and potassium. On the basis of these results, lime and fertilizer can be scientifically recommended for specific turfgrass needs.

Lime and fertilizer are used most efficiently by plants when supplied in the proper amounts. Determining the amounts to apply would be a simple task if the requirements of all plants were the same, and if the capability of all soils to supply plant nutrients were the same. But this is not the case.

Some plants require large amounts of nutrients, while others may be miserly in their needs. It is possible to predict the total plant food requirement of most plants. But without a soil test, it is difficult to predict how much food can be supplied from the soil and how much must be supplied from lime and fertilizer.

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Steve O’Neill        Tom Comalli
The State of Maryland offers a good example of the need of soil tests. Maryland is divided into 3 major physiographic regions—the Coastal Plain (eastern shore and southern Maryland), the Piedmont (central Maryland), and the Mountain Region. Soils of these regions were developed from different parent materials characteristic of each area; thus, some soils are vastly different from others.

A further breakdown reveals that there are approximately 280 different soil series in Maryland and each soil series has a different capacity for supplying food. If we consider variations in surface texture, we must contend with about 700 different soil types. If we then consider variations in previous practices such as fertilization, cultivation and drainage, the soils in Maryland have literally thousands of different combinations of fertility and soil capability levels.

Because of these variable soil characteristics, the best way to predict the amounts of lime and fertilizer needed to balance the natural soil fertility and to satisfy plant needs is by having your soil tested. The University of Maryland Soil Testing Laboratory provides this service free for Maryland residents.

In some cases, soil fertility problems are unusual or more complex than normal. To help diagnose these problems, the University of Maryland Soil Testing Laboratory also runs special tests on soil samples. However, for most crop and soil conditions, it is not necessary to have these special tests run on your soil. If you have a specific problem with your crop, contact your county Extension agent to determine if the special tests may be helpful in diagnosing the problem.

WHEN SHOULD SOIL SAMPLES BE TAKEN?

Soil samples can be taken anytime during the year when the soil is in a satisfactory condition for sampling, that is, not too wet, frozen, etc. Soil samples taken when the soil is too wet should be air dried before sending to the soil testing laboratory.

SUBMITTING THE SOIL SAMPLE FOR TESTING

Be sure that the sample was carefully taken so that it is representative of the soil in the lawn, garden, or field. Complete the information sheet and submit it with the sample. The sample can then be delivered to your county Extension office or delivered directly to, or mailed to the Soil Testing Laboratory, University of Maryland, College Park, Maryland.

The soil sample is often the weakest link in the soil testing program. To strengthen this link, and to assure that the soil test results will be as accurate and as meaningful as possible, you must see that the soil sample is taken carefully and conscientiously. The testing procedures used by the Soil Testing Laboratory are precise, and can be used to determine the fertility status of the soil in the sample. But to be useful, the soil in the sample must be representative of the soil in the area sampled.

Remember! Soil test results can be no better than the soil sample you submit.


NEW GCSAA OFFICERS AND DIRECTORS

President Charles G. Baskin, Connecticut
Vice President Palmer Maples, Jr., Georgia
Directors Theodore W. Woehrle, Michigan
Melvin B. Lucas Sr., New York
Charles Tadge, Ohio

CHANTILLY NATIONAL GOLF AND COUNTRY CLUB

Our March dinner at Virgil Robinson’s Chantilly C.C., which came in a succession of surprise platters, was undoubtedly one of the best dinners our association has had the pleasure to enjoy. Our thanks go to Virgil for his work and efforts which made for a very successful first meeting of 1974.
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