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FUNGICIDES

<table>
<thead>
<tr>
<th>CHIPCO-RHODIA</th>
<th>DUPONT</th>
</tr>
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<tbody>
<tr>
<td>&quot;26019&quot; ........... (6x2#)</td>
<td>Tersan &quot;75&quot; .......... (12x3#)</td>
</tr>
<tr>
<td></td>
<td>$216.00 cs.</td>
</tr>
<tr>
<td>CLEARY</td>
<td>Tersan &quot;1991&quot; .......... (6x2#)</td>
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<tr>
<td>Spotrete-F ........ (2x2½ gal.)</td>
<td>$157.80 cs.</td>
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<tr>
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<td>Tersan &quot;SP&quot; .......... (12x3#)</td>
</tr>
<tr>
<td></td>
<td>$313.20 cs.</td>
</tr>
<tr>
<td>DIAMOND CHEMICAL</td>
<td>TUCO</td>
</tr>
<tr>
<td>Daconil &quot;2787&quot; flowable ... (2x2 gal.)</td>
<td>Acti-dione Thiram .... (5x3#)</td>
</tr>
<tr>
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<td>$141.60 cs.</td>
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<tr>
<td>Daconil &quot;2787&quot; W-75 w/p ... (12x2#)</td>
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<tr>
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<td>$165.60 cs.</td>
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AQUATIC CHEMICALS

<table>
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<tr>
<th>AQUATIC CHEMICALS</th>
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<tr>
<td>Aqua Shade .......... (4x1 gal.) ... 43.50 gal.</td>
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<tr>
<td>Weed Trine II (granular) (4x10 lb. bags) 32.75 bag.</td>
</tr>
<tr>
<td>Weed Trine D .......... (4x1 gal.) 36.45 gal.</td>
</tr>
<tr>
<td>Copper Sulfate ...... (100 lb. bags) 73.50 bag.</td>
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<tr>
<td>Cutrine Plus ........ (4x1 gal.) ... 26.85 gal.</td>
</tr>
<tr>
<td>Cutrine Plus (granular) (4x10 lb. bags.) 22.10 bag.</td>
</tr>
<tr>
<td>Cutrine Plus (granular) (30 lb. bags). 50.70 bag.</td>
</tr>
</tbody>
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Other Aquatic Chemicals in stock, call for quote.

ACCESSORIES

<table>
<thead>
<tr>
<th>PAR-AID</th>
<th>STANDARD</th>
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<tbody>
<tr>
<td>CHEX TEE TOWELS</td>
<td></td>
</tr>
<tr>
<td>Call for Par Aid &amp; Standard Catalogs &amp; Price Lists</td>
<td></td>
</tr>
<tr>
<td>Flags • Benches • Tee Markers • Ball Washers • Rakes • Poles • Hole Cutting Equipment • Signs</td>
<td></td>
</tr>
</tbody>
</table>

CALL COLLECT - 612 448-3300
MILT or JOHN
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EDITOR - WARREN J. REBHOLZ
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SUITE 301
EDINA, MINNESOTA 55435
PHONE: 612/927-4643

ASSOCIATE EDITOR - THOMAS P. MAGNE

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FROM THE PRESIDENT'S DESK
DENNIS HENDRICKSON

As we get into the busiest time of the year we often face problems ranging from those with personnel to turf decisions. It is easy to forget one of the real advantages of being a member of MGCSA. That is the privilege of knowing many other people who probably are having or have had our same problems. Often a call is all that is necessary to get help. Even if our problem is one that does not have a definitive solution, it helps our state of mind to know that we are not alone with our difficulties. This can go a long way in helping to relieve our stress as we learned at last year's Annual Conference. We might even find a solution to the problem itself. We all know two heads are better than one. These specific problems are also good topics for discussion at our monthly meetings.

Last month's meeting at the St. Cloud CC was a great success. We had a big turnout of superintendents, good food, an interesting equipment display and maintenance talk, good weather and a great golf course to play. What more could we ask? Our special thanks go to Kerry Glader and everyone at the St. Cloud CC for making the whole day possible.

Our next meeting will be at the Mora CC with Host superintendent Fred Anderson on June 8, 1981. Once again a luncheon speaker is being planned. This format seems to be working quite well.

If you have any comments, please let a Board Member know of them.

SEE YOU ALL IN MORA!
Most of you are pleased with how the winter ended and the appearance of your turf. The snow mold plots were basically clean—very little disease in southern and central Minnesota. At Duluth, the plots were also nearly free of snow mold while International Falls again produced 100% disease in the untreated check and in the fertilize portion. Last fall all northern plots fertilized in the fall received 1 pound of nitrogen as Urea. The fertilizer application did not control disease, but what a difference in growth this spring. At two locations, only 1/2 of the plot received the late fall nitrogen, in both cases the best turf was that receiving the late season nitrogen. In no case was snow mold increased by the late season fertility. At one location the severity of winter injury was also reduced in the fertilized area.

In late April on Bluegrass, we saw significant levels of Septoria Tip Blight. Initially the leaf blade was mottled or had yellow blotches. The fungus usually enters the cut tip and progresses down the leaves, surely in extended cool wet seasons, Septoria can attack and enter other leaf parts also. At the end of April and early May several reports of "cool season" brown patch were heard. This was similar to the symptoms seen at the Minneapolis Golf Club last fall during the cool damp weather. This may be Rhizoctonia, or some other soil fungus, but in either case at some locations a necrotic ring, 4-12" developed. The dying grass was reddish brown and the center usually recovered. The symptom was strongest on cloudy, cool, wet days and was reduced on the few sunny days we had. Applications of systemic - 1 to 2 ounces or 2 ounces of 26019 - check the disease for about two weeks. The damage varied, with most saying the loss was quite superficial. As the temperature warmed, continued on Page 9.
DOCUMENTATION – THE BASIC STEP
By PALMER MAPLES, JR., CGCS
GCSAA Director of Education

Water use is more likely to be restricted in many parts of the country during the next decade. Total water use may also be affected by weather conditions and the cost of purchasing water and power to pump. Documentation of prior water use will play an important part in reaction to any water restrictions.

A very basic ingredient in any water use plan is a record of how much was used in the past and under what conditions. This calls for a review of purchases if water is received from a municipality or company or a review of use if water is received from wells, ponds or rivers. You must know how much water was used.

Equally important are records of weather data and maintenance procedures. Weather data will indicate if conditions were normal or if supplemental water had to be applied. Maintenance records will indicate establishment or maintaining conditions. These records should indicate changes in the level of maintenance, such as preparations for a special tournament. Maintenance records also will indicate management programs, including irrigation system check and repair, pond and stream management, conservation methods, agronomic procedures and other information comprising a respectable, documented folder of information that will be the base on which presentations can be made and changes calculated.

You will then be prepared to meet any restriction of water use, whether it comes voluntarily or through a rationing or prohibiting order, if you have prepared and maintained adequate records.

GCSAA GOLD MEMBERSHIP CARDS ARE VALUABLE

Even if you can't take them to the bank, gold GCSAA membership cards carried by Class AA, A, B and retired A and B members can be valuable. Just ask anyone who has had to pay the full admission price to see a major golf tournament.

The USGA, PGA Tour and LPGA have verified that they will allow free tournament admission to GCSAA members who present their gold membership cards with proper identification at the main entrance or the "will call" window at major golfing events. The P.G.A. Championship and the Masters also will honor the gold cards.

GCSAA members wishing to take advantage of this benefit should go to the main entrance at the tournament site. In the past, members have been turned away because individuals manning the gates were not aware of the policy. If this happens, just try another gate or the will-call window. It may not be the right kind of gold, but your gold membership card can save you money. And you can take that to the bank.

Reprint FORE FRONT
NUTRIENT LEVELS OF SANDS FOR TOPDRESSING GREENS

By DON TAYLOR, Extension Specialist-Turf, University of Minnesota

Last month the particle-size distribution of several sands available for topdressing greens was reported. Particle-size is probably the most critical factor in choosing the appropriate sand. After choosing the sand, however, some idea of the pH of the sand and the nutrient level of the sand can help in improving the topdressing program. Table 3 lists the results of soil tests on the same sands as reported last month.

SOIL pH. Values between 6.6 and 7.4 are considered neutral, pH values between 7.4 and 8.0 are slightly alkaline, and those between 8.0 and 9.0 are moderately alkaline. The effect of adding shallow layers of sand with a high pH over soil with a lower pH is not clear. After a period of time, the sand will probably come down to the pH of the underlying soil though how long that will take is not clear. There may or may not be some short term effects on the grass plants.

PHOSPHORUS AND POTASSIUM. As was expected, both P and K were very low in all sands. If you have the capability, it would probably be a good idea to mix some P and K into sand before topdressing. If you are top dressing with sand or have a high sand green you need to be sure you are applying adequate P and K. For further information you might want to obtain Extension Bulletin 458-Computer Programmed Soil Test Recommendations for Lawns, Turf and Gardens in Minnesota.

EXTRACTABLE BASE CATIONS. There has been some talk about nutrient imbalances, particularly about the Ca/Mg ratio; consequently, I have included the levels of the base cations in the sands. Those of you who are adding magnesium or magnesium and sulfur ought to have some test strips with different treatments to see what is effective for you. I will be most interested in hearing from you about the effectiveness of your program. I know several of you are switching sands and including new treatments with your topdressing program. Please let us know what is working and what isn’t.

Table 3. Soil pH and nutrient levels of top-dressing sands from Minnesota.

<table>
<thead>
<tr>
<th>Sand #</th>
<th>pH*</th>
<th>P*</th>
<th>K*</th>
<th>K**</th>
<th>Ca**</th>
<th>Mg**</th>
<th>Na**</th>
<th>Mn**</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1</td>
<td>8.0</td>
<td>6</td>
<td>15</td>
<td>7</td>
<td>1779</td>
<td>115</td>
<td>&lt; 3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>7.4</td>
<td>6</td>
<td>19</td>
<td>11</td>
<td>1505</td>
<td>138</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>7.8</td>
<td>8</td>
<td>34</td>
<td>19</td>
<td>2413</td>
<td>100</td>
<td>5</td>
<td>2</td>
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<tr>
<td>4</td>
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<td>8</td>
<td>19</td>
<td>10</td>
<td>2276</td>
<td>125</td>
<td>&lt; 3</td>
<td>5</td>
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<tr>
<td>5</td>
<td>8.3</td>
<td>6</td>
<td>17</td>
<td>8</td>
<td>648</td>
<td>35</td>
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<td>1</td>
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<td>1</td>
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<td>7</td>
<td>7.2</td>
<td>4</td>
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<td>12</td>
<td>907</td>
<td>75</td>
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<td>8</td>
<td>7.4</td>
<td>2</td>
<td>16</td>
<td>9</td>
<td>10</td>
<td>75</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>8.9</td>
<td>2</td>
<td>6</td>
<td>&lt; 6</td>
<td>155</td>
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<td>9</td>
<td>26</td>
<td>7</td>
<td>&lt; 3</td>
<td>0</td>
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</tbody>
</table>

* Determined by the Soil Testing Laboratory, University of Minnesota, Saint Paul, MN 55108.

** Extractable base cations determined by the leaching method by the Research Analytical Laboratory, Department of Soil Science, University of Minnesota, Saint Paul, MN 55108.
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**Pond History**

How many ponds over one acre do you own? 

If you have more than one pond, consider only your most perplexing problem when answering the remaining questions. When your Otterbine Water Quality expert contacts you be sure to tell him about your other ponds.

What is the approximate age of your pond?  
☐ less than 5 years  
☐ 6 to 10 years  
☐ 11 or more years

What is the normal water movement rate?  
☐ None  
☐ Little  
☐ Moderate

What is the average depth of the pond?  
☐ 3 feet  
☐ 6 feet  
☐ 10 feet or more

What is the shape of the pond?  
☐ Circular  
☐ Doglegged  
☐ Serpentine

What is the approximate surface acreage?  

Are the shore lines retained by:  
☐ Vegetation?/Roots  
☐ Stone or wood riprap

What is the primary purpose of the pond?  
☐ Irrigation  
☐ Water Hazard  
☐ Decoration

Beauty is important since the club house overlooks my pond  
☐ Yes  
☐ No

I want to light-up my fountain at night. Send me more information on your low-voltage light system.  
☐ Yes  
☐ No

**Water Quality**

What problems have you encountered in this pond?  
☐ Algae  
☐ Odors  
☐ Fish Kills  
☐ Excessive weed growth  
☐ Clogged irrigation lines

How much of the pond surface is covered with algae?  
☐ 25%  
☐ 50%  
☐ 75%  
☐ 100%

Are you currently using aquatic chemicals?  
☐ Yes  
☐ No

Would you prefer not to use these chemicals?  
☐ Yes  
☐ No

**Electrical**

What is the approximate distance from the pond to a power supply? 

feet

What type of power is available?  
☐ 115V  
☐ 230V  
☐ 460V  
☐ Single Phase  
☐ Three Phase

Is your location subject to lightning strikes?  
☐ Yes  
☐ No

Otterbine® now offers a unique method of water treatment combining the beauty of spray sculpture with a record of high reliability and cost effectiveness.

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City _____ State _____ Zip ________
Phone ___________________________

When is the best time to contact you by phone? 

Thank you for your time. Please return this questionnaire to:

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Grass-stained knees, if that's what it takes to understand your problem. Northrup King people get involved.

The right turfgrass decision can improve the quality of your turf. It can also save you maintenance dollars.

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LIVING WITH THE GRAPEVINE

Fortune magazine estimates that U.S. industry is confronted by a minimum of 33 million fresh rumors every working day. If valid, that startling statistic emphasizes a major problem facing everyone who manages people.

Rumors come in all shapes and sizes, from the big ones which created a climate of fear around Three Mile Island and DC-10s to the little ones which are passed along the grapevine in every office or factory. Once started, they are almost impossible to stamp out, even in a small organization.

Experts say that rumors depend on the importance of the subject matter multiplied by the ambiguity of the existing facts. They flourish because of uncertainty, social strain or plain boredom, and internal rumors can be as damaging as external ones.

When you are faced with a rumor in your organization, you have three choices. You can tackle it head-on; you can outflank it by introducing new facts or findings that make it irrelevant and ridiculous, or you can postpone comment indefinitely. Repressive measures are not really an alternative because when normal sources of information are shut off, the grapevine flourishes.

Of course, it is possible to turn the grapevine to your advantage. Once you know how the rumors are spread, you can pass along accurate information and obtain feedback from your employees.

In some organizations, it is actually a morale builder both as a form of entertainment and as an underground communications network that creates a "we're all in this together" feeling.

Reprint FORE FRONT

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more reports of Helminthosporium were heard and seen. Susceptible grasses, such as Kentucky Bluegrass, were severely spotted and Penncross had dead tips. Contacts and 26019 reportedly gave good control.

The difference of growth in Bent and Poa was noticed by many and greens with a mixture were quite uneven. The wide spread frost on May 9, 10, 11 did damage many plants and also slowed growth. The cold nights and lack of sun have nearly made up for the early spring. In case you have not noticed, our season is about average and unless we get more warm weather we will be behind average. Growth of turf was very slow especially on heavy soils and areas with reduced root systems. You may want to check your soil temperature at 2 inches deep in the morning. On May 19, temperatures below 50° were common and you should not expect much growth under these conditions.

NEW MEMBERS

Introduced and accepted as new members at the St. Cloud meeting were, left to right, Orville Larson of Windom, Doug Anderson of Minikahda and Dave Ruppert of Faribault.

WELCOME, GENTLEMEN! We hope you will enjoy the activities of your association.

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Truckload Bulk $83.00/t + Freight

MILORGANITE ANALYSIS

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<th>Parts Per Million</th>
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<td>Molybdenum</td>
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</tr>
</tbody>
</table>

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