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FROM THE PRESIDENT'S DESK

LARRY MUELLER

This is the time of year when we can truly appreciate being Golf Course Superintendents in Minnesota. The fall season, consisting of cool nights and warm sunny days along with the splendor of color that the foliage displays, makes it one of the nicest seasons of the year even though it seems to be quite short lived.

In the northern climate our occupation challenges us to change with the seasons and this helps to keep us from becoming complacent for we have to make adjustments to accommodate nature. It also gives us a chance to catch our breath and do some of the things we enjoy.

I believe 1982 will go down as a good year for golf. We lost very few days to bad weather and play seemed to be up. Apparently, the economy didn't affect play adversely.

Our 1982 Annual Golf Tournament was a very successful event and we owe much thanks to Don Lindblad, Host Superintendent, and Jim Nicol for all their time and effort. It seems they didn't miss a trick and it made for a first class event. Thanks again, fellows.

We are sorry to report the passing of Joe Garske, founder of Par Aide Products Co. and a long time Associate Member. A memorial was donated to our Research Fund in his name. The industry will miss Joe.

It is not too early for you eligible members to be thinking about running for the Board of Directors of our Association. Chairman of the Nominating Committee Dennis Hendrickson would appreciate hearing from anyone interested. It is a great opportunity to get involved in your association as well as a rewarding experience. Please let Dennis know if you are interested.
Transitional Management For Northern Grasses

Autumn's shorter days and cooler temperatures bring fewer golfers out on the courses, but this is the beginning of another critical time for superintendents: the transitional period.

"The worst is over, but transitional management for northern grasses such as bluegrass, bentgrass, perennial ryegrass and creeping red fescue is important," states Todd Cutting, TUCO Agricultural Chemicals technical field extension representative. "Proper cultural management practices during the transitional period (early September to freeze-up) pay off next spring in terms of fewer disease problems, healthier turf and earlier green-up."

This period poses a dilemma for the superintendent. On one hand, he must maintain a good golfing surface through the late season. On the other hand, he shouldn't do anything to cause excessive growth which can increase turf's susceptibility to diseases and winter injury.

"Many superintendents start off with exceptionally good disease control programs, but tend to slack off during the transitional period," notes Cutting. "The available labor supply dwindles as students return to school, the budget is nearly depleted and winter is fast approaching. However, what you do in the fall determines what you get next year."

To maintain good surfaces for fall play while preparing the turf for winter and ensuring healthy turf for the spring, Cutting recommends the following steps:

1) Continue the fertility program to maintain adequate grass growth for good playing surface while not causing excessive growth.

"During the transitional period, turf begins replenishing depleted growth reserves by storing carbohydrates and sugars in its roots and begins making tillers instead of leaves. Tiller production is greatly increased by raising the supply of nitrogen, phosphorus and potassium," explains Cutting.

Cutting recommends using a balanced fertilizer containing 1/2 lb. nitrogen in early September. Nitrogen supplies nutrients for root growth and provides for dark green color in early spring. The more root growth that occurs in autumn, the greater tillering that can occur in early spring. Potassium helps prevent winter damage, regulate water retention and increase turf's hardiness to heat, cold and drought.

2) Maintain watering program to ensure good surface playability while encouraging root development. "Overwatering interferes with root development and can cause lush growth which increases the plant's susceptibility to disease and tissue freezing. Excess water also favors development of common fall diseases such as leaf spot and dollar spot," notes Cutting.

3) Continue disease control program to reduce the numbers of overwintering sclerotia for dollar spot and spores for leaf spot, and also early snow mold. Cutting recommends two applications of Acti-dione RZ - the first in late October and the second in mid-November. This fungicide contains the antibiotic Actidione and PCNB.

"Acti-dione knocks down any diseases that are actively working, and the PCNB component provides a fungistatic barrier which prevents diseases from spreading," says Cutting. "PCNB is broken down by bacteria in the soil. Because these organisms become inactive at temperatures below 50 degrees F., PCNB remains in the thatch layer and suppresses disease activity until spring. Acti-dione RZ used on a regular basis establishes a barrier that continually suppresses the germination of fungal inoculum."

4) Dormant fertilize when the grass is done growing. Depending on the course's location, Cutting recommends applying fertilizer which contains 1-2 lbs. nitrogen in late October to early December before snowfall.

By incorporating these transitional management tips into your disease control program, you can achieve disease-free turf as well as early spring green up.
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LET’S TALK “TEE TIME”

GCSAA is sponsoring three continuing education seminars this fall - one in the San Francisco Bay area and two in the Chicago area. With GCSAA's educational seminars, keeping up with the latest advancements in the turf and golf industry is no longer an insurmountable task. It's self-improvement made easy.

With the successful completion of each seminar, attendees will receive a Certificate of Achievement and will be granted Continuing Education Units (CEUs). The CEU is a universally recognized standard unit of achievement which may be used as evidence of increased education and for job advancement.

Maximize your performance and increase your value! Come learn with us.

San Francisco Bay Area - October 20, 21 - Management IV "Documentation: Communication: Motivation" by Ronald C. Frame.

Chicago Area - November 22, 23 - Pest Control Management V "Ornamental Pest Management" by Dr. David G. Nielson and Dr. Donald E. Short.


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<th>List Price</th>
<th>Sale Price</th>
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<td>150451 DL</td>
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<td>101251 DL</td>
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GREENSMOWERS

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<td>ROSEMAN</td>
<td>190650 SL</td>
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<td></td>
<td>Single Lip</td>
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<tr>
<td>TORO GROUNDSMASTER</td>
<td>72&quot; unit blades</td>
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<tr>
<td>JACOBSEN COMMERCIAL</td>
<td>20&quot; 330719 Blades</td>
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<tr>
<td>LAWN-BOY</td>
<td>21&quot; 603703</td>
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SALES

**PALL SPECIALS**

LINE TRIMMERS

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<td>GREEN MACHINE</td>
<td>3600 SS</td>
<td>$329.95</td>
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<tr>
<td>WEEDEATER XR-90</td>
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<td>$249.95</td>
<td>$219.97</td>
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</table>

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THATCH REDUCTION

Thatch - a tightly intermingled layer of dead and living stems and roots that develops between the zone of green vegetables and the soil surface. The recommended thickness of the thatch layer on a putting green should range from .125 to .25 inches, this providing the appropriate resiliency desired for proper ball bounce. In addition the thatch layer increases wear tolerance and helps to stabilize the greens micro-climate during temperature extremes.

At this time I would like to shift from the text book facts to the realities some superintendents are facing, thatch layers ranging from .5 to 1.5 inches. Four years ago the putting greens at my golf course were at the upper extremes of this range. At that time I wished to develop a program to reduce this thatch layer which was effective; yet, workable within my budget limitations. My goal was to reduce the thatch to the recommended thickness in three years time. The plan went as follows:

**Year One - May**
1. Deep groove verticut (knives set .25 inches below the putting surface)
2. Double cut greens to remove runners
3. Topdress with a 7-2-1 mix (this mix is comparable to the greens original construction mix.)

**September**
1. Aerify greens, remove all cores
2. Topdress heavily and drag in until the aerifier holes are completely filled.

The following spring I found I had excellent results in thatch reduction, but, one must realize the initial reduction in my case of over fifty percent of the original layer which becomes more difficult.

In year two I changed the plan slightly. I did not verticut as deep because I felt the insuing puffiness and scalping were undesirable. The actual plan went as follows:
1. Verticut (knives set .125 inches below putting surface)
2. Topdress lightly
3. Verticut once per month thereafter including July and August
4. Mow greens with combs down at all times
5. Aerify in September remove cores and topdress heavily.

The following spring of 81 I found this program had limited success in diminishing the remaining thatch layer; which was on the average of .5 inches. So, after doing some more research on the subject I set up the third year's program.

**1. May - verticut (knives .125 inches below putting surface)**
2. Topdress lightly
3. Verticut once per month thereafter
4. Fertilize greens with a soluble nitrogen source on a weekly basis, rates as needed. Mine varied from .25 lbs. of N per 1000 sq. ft. to .10 lbs. per 1000 sq. ft.
5. September - aerify, verticut cores and drag back in.
6. Topdress lightly two weeks later.

---

Keep this card handy. It could save you time and money.

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Mike Redmond

Scotts ProTurf
As of the spring of 82, I am pleased with my results. Since, I did achieve my goal in the third year I have a tendency to attribute my success to the addition of the weekly applications of soluble fertilizer which provide a carbon/nitrogen ratio in the thatch layer more conducive to the decomposition of stem and crown matter. I do not think it can be stressed enough how important this factor is in the decomposition of thatch due to the constant leaching of nitrogen from this layer of the greens profile.

To summarize I would say I found that the problem of thatch reduction was much more difficult that I had imagined. One might find it very easy to be satisfied with the initial results and then curse the insuring struggle to reduce this layer any further without the manpower or the money to topdress on a more routine basis. However, one will find that persistence in this case has many benefits for the golf course. The obvious being the improved playability of the greens. Other factors include reduced use of wetting agents, dramatic increases in fertilizer efficiency, marked reduction in disease activity, and less sleepless nights.

David Behrman
Deer Creek Golf Course

Little Known (But Pretty Interesting) Facts About Golf Courses

Ecologically, the golf course provides some pretty fantastic help to mankind, in addition to just giving him a place to exercise and enjoy life. For example:

An average 18-hole golf course, approximately 150 acres, can produce enough pure oxygen through photosynthesis for at least 100,000 people for the entire year. On a smaller scale, that means a well-maintained lawn 50 by 50 feet liberates enough oxygen to meet the needs of a family of four, day after day.

That same average golf course of 150 acres can effortlessly absorb 12 million gallons of water during a three-inch rainfall.

Grass also provides a cooling effect. A 2000 square foot plot releases as much as 120 gallons of water through a method called evapotranspiration. This release of water reduces the heat factor. Grass absorbs only 50-60 percent of the incoming solar radiation while buildings and pavement absorb 90 percent.

Grass and tree leaves also help cleanse the atmosphere because of their ability to trap dust particles through static electricity of dense foliage. Rain then washes the particles into the soil.

### BIG VALUE - INVENTORY REDUCTION SALE

<table>
<thead>
<tr>
<th>(USED) RECONDITIONED</th>
<th>NEW</th>
</tr>
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<tbody>
<tr>
<td>1-Jake 72&quot;Commercial(LikeNew)Ford 4 cyl.Engine</td>
<td>Yanmar 16to33hp Tractors &amp; Attachments</td>
</tr>
<tr>
<td>2-Jake Trap King II Trap Rake</td>
<td>Howard Hydro-Power Diesel 15' Cut</td>
</tr>
<tr>
<td>3-Toro Super Pro</td>
<td>Howard 727 Turf Blazers-Diesel 72&quot;</td>
</tr>
<tr>
<td>4-Toro 70 Tee Mower</td>
<td>Howard Turf Blazers 48&quot; to 60&quot;</td>
</tr>
<tr>
<td>5-Toro 76 Reel Mower</td>
<td>Heckendorf 88&quot; Riding Mower (Manual)</td>
</tr>
<tr>
<td>6-Hahn Deluxe Triplex Grnmower/Verticut Reels</td>
<td>Smithco 23 hp Performer</td>
</tr>
<tr>
<td>7-Gandy 12 Granular Drop Fertilizer Spreader</td>
<td>Smithco Easy Rider Trap Rake</td>
</tr>
<tr>
<td>8-Roseman Hollow Roller, 5 gang, 6 blade Mower</td>
<td>Smithco Athletic Field Conditioner</td>
</tr>
<tr>
<td>9-Yazoo 60&quot; Cut Mower</td>
<td>Smithco Champion (Manual)</td>
</tr>
<tr>
<td>10-Howard 60&quot; Cut Mower</td>
<td>Turf Vac Vacuums</td>
</tr>
<tr>
<td>11-Howard 82&quot; Cut Mower</td>
<td>Diadem Fertilizer &amp; Sand Spreaders</td>
</tr>
<tr>
<td>12-National 36&quot; Cut Reel Mower</td>
<td>Terra 4' and 5' Aerators</td>
</tr>
<tr>
<td>13-Bolens HT-20 Tractor w/60&quot; Mower</td>
<td>Sovema Tillers</td>
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<tr>
<td>14-3 Gang Reel Mower, Like New</td>
<td>Myers Sprayers</td>
</tr>
<tr>
<td>15-Smithco 48&quot; Self Propelled LittleBeaver Spiker</td>
<td>Roseman Reel Mowers</td>
</tr>
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</table>
| 16-Turf Vac 48" Vacuum, 2.5 yard Hopper  | `
| 17-Bean 400 gal. Speed Sprayer           | `
| 18-Myers 100 gal. Down Draft Sprayer     | `

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SENIORS FIRST. Low new senior Russ Adams, left, and low net senior Fred Anderson don't look so old to us.

HIGH NUMBER. Dennis Schoenfeldt, high gross winner, says he was well under 300 but not far under 150.

CONGRATS! Steve Wright, low net guest, congratulates Mark Crimmins, low gross guest, on his nice 76.

NAMESAKE. Low net supe winner, Tom Watson, rt., models extra large sweater while 2nd low net winner Paul Feldhake shows correct fit.

REAL PLAYER. Low pro honors went to Ken Ellsworth of Edina CC who shot a neat two under Par 70.

SHAKE. Happy with their scores are left, Larry Vetter, low gross associate and Carl Tychsen, low net associate.
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<th>MAJOR AREAS OF USE</th>
<th>SPECIAL FEATURES</th>
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</thead>
<tbody>
<tr>
<td>Athletic Pro Mix</td>
<td>High maintenance athletic turf</td>
<td>Both are well suited for new seeding or overseeding. Fast establishing, excellent traffic tolerance, and rapid recovery. Provides good footing.</td>
</tr>
<tr>
<td>Athletic Pro II Mix</td>
<td>Low to moderate maintenance athletic turf</td>
<td></td>
</tr>
<tr>
<td>Boulevard Mix</td>
<td>Any area with high pH (roadsides, sidewalks, boulevards, beachfronts, etc.)</td>
<td>Contains both “Fults” <em>Puccinellia distans</em> and Dawson red fescue which thrive on high saline or alkaline soils. Performs at low to high fertility levels.</td>
</tr>
<tr>
<td>Landscape Pro Mix</td>
<td>School grounds, cemeteries, golf course roughs, lawns</td>
<td>Fast establishing. Adapts to broad range of conditions and management levels. Low to moderate fertility requirements.</td>
</tr>
<tr>
<td>Overseeder II Mix</td>
<td>Fairways, tees, athletic fields</td>
<td>Fast establishing, traffic tolerant, disease resistant, penetrates compacted soil.</td>
</tr>
<tr>
<td>Overseeder III Mix (Formerly Medalist North Mix)</td>
<td>Fairways, tees, cart paths, wear areas</td>
<td>Long term quality in high traffic areas. Clean mowing and disease tolerant.</td>
</tr>
<tr>
<td>Premium Sod Blend</td>
<td>Commercial sod producers</td>
<td>Fast establishing, exceptional dark green color, shade tolerant, superior disease resistance.</td>
</tr>
<tr>
<td>Special Park Mix</td>
<td>Parks, commercial developments, lawns</td>
<td>Low fertility tolerance, shade tolerant, adapts to wide range of soil types.</td>
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