BEFORE WE DEVELOPED THESE PROBLEM-SOLVING TURFGRASS MIXTURES, WE MARCHED THROUGH ACRES AND ACRES OF PROBLEMS.

Nobody knows the troubles we've seen. Our Northrup King turf specialists and researchers have hoofed through salt problems, soil compaction, disease, starved turf, baked turf, cleated-to-shreds turf, and dormant winter turf—all depressing sights. But it was a road well worth our travels.

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If you've been staring down at a turf problem, look up your solution here. And if you think it's a turf problem we haven't seen, just let us know.

Our business is putting your problems behind us.

<table>
<thead>
<tr>
<th>MEDALIST TURF PRODUCT</th>
<th>MAJOR AREAS OF USE</th>
<th>SPECIAL FEATURES</th>
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<tr>
<td>Athletic Pro and Athletic Pro II</td>
<td>For athletic turf.</td>
<td>Well suited for new seeding or overseeding. Fast establishing, traffic tolerant, rapid recovery. Both provide good footing.</td>
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<td>Boulevard Mix</td>
<td>Any area with high pH (roadsides, sidewalks, boulevards, alkaline soils, etc.).</td>
<td>Contains 'Fults' and Dawson red fescue for beautiful salt-tolerant turf. Performs at low to high fertility levels.</td>
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<td>Landscape Pro Mix</td>
<td>School grounds, cemeteries, golf course roughs, home lawns.</td>
<td>Establishes fast. Adapts to broad range of conditions and management levels. Low to moderate fertility needs.</td>
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<tr>
<td>Overseeder II Mix</td>
<td>Fairways, tees, athletic fields.</td>
<td>Rapid germination and establishment. Withstands heavy traffic and resists diseases. Penetrates compacted soils.</td>
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<tr>
<td>Medalist North Mix</td>
<td>Fairways, tees, cart paths, wear areas.</td>
<td>Quality turf for high traffic areas. Clean mowing and disease resistant.</td>
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<td>Renovator Pro Mix</td>
<td>Problem solver for heavy traffic areas (athletic fields, golf tees, and fairways).</td>
<td>Penetrates compacted soils and combats Poa annua. Adaptable to most geographic regions.</td>
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<tr>
<td>Medalist Brand Overseeding Products</td>
<td>Winter overseeding of dormant bermudagrass.</td>
<td>Establishes rapidly and evenly. Tolerates traffic while providing a superior putting surface. Smooth spring transition.</td>
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FROM THE PRESIDENT'S DESK
DALE CALDWELL

By most reports, the summer of 1985 was a relatively pleasant season. Temperatures were not excessive, disease pressure was reasonable and moisture was adequate, with some notable exceptions, particularly southeastern Minnesota. The majority of us in the turf industry would certainly welcome a repeat performance in 1986.

With the fall season approaching, we are already losing our summer help. Aerification is completed or soon will be. It won't be long and we'll be up to our elbows in leaves. Many of us are embarking on projects of reconstruction or improvements deemed necessary through the course of the past season. This fall season can be equally as trying as the summer season.

An observation from the meeting at Island View in August... There are many members of our association who are new and not familiar to many of us "old timers". If all of us would take the time to introduce ourselves to someone we don't know each month, I'm sure it could be a valuable experience and mutually beneficial. You may learn something which you could apply to your operation or you may be able to teach someone else something. Take time to meet one or two unfamiliar members each month.

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SLOPE SYSTEM WORKING WELL

by GUY GREEN
Minnesota Golf Association

The U.S.G.A. Slope Handicap System has settled into place and, well into its second year of operation, appears to be having the effects it was designed to produce. Using the M.P.G.A. Four-Ball and the M.G.A. Senior Four-Ball as examples, we have seen that the great advantage formerly held by players from longer, more difficult courses has been reduced. Different players from different courses have found their way into the winners circle. In general the system has been made more equitable, giving each player that tees it up in a handicap event a more reasonable chance of success, which is good for the game of golf. We at M.G.A. have tried our hardest to make using the slope system as easy as possible. We have sent information packets to all our member clubs and spoken to various groups around the state to answer any questions people have had. We have also published a booklet of all the Slope Handicap conversion charts for every course in Minnesota; thereby eliminating the need to hunt for the chart at the course you are playing.

In addition to our efforts, the players in Minnesota have embraced the system. They made the effort to understand and work with the changes. They weren't afraid to ask questions and suggest constructive changes, and really made the transition smoothly and positively. In doing so they have helped pave the way for the slope system to go national in the very near future.

This is not to say there have been no problems along the way. As with any rating system, Slope can lead to some misunderstandings. As superintendents you are probably most aware of how members can get caught up in the numbers game and equate high course ratings and slope ratings with the quality of golf courses. Questions of comparison come up all the time. "Why is our course rated at 120 and this other place rated at 125?" Our greens are so much faster than theirs, I can't believe our slope is lower!" "We have so many more bunkers than course X, why is our slope lower?"

The answer to these questions is that the Slope Rating of a golf course is not a statement on the quality of conditions or the number of bunkers nor is it a handy means of comparing two golf courses with each other. The Slope Rating is a statement of how difficult a golf course is for an average player (about 18-20 handicap). A course need not have a high course rating to have a high slope. The converse is also true. There are strict yardage ratios for the average player of both sexes which go a long way toward determining the final numbers. One or two strategically placed bunkers can account for higher ratings than half a dozen bunkers that don't come into play as often. Two or three well placed trees can cause more trouble than a completely lined fairway that is 60 yards wide. Speed and contour combine to create difficulties on putting surfaces that an excess of one alone will not.

As a further example of the futility of comparing courses through ratings and slopes alone, look at two famous courses in New York. Winged Foot, dubbed by many as the hardest of the U.S. Open Courses, has a lower slope rating than Westchester Country Club which is usually the scene of some of the best scoring on the tour. This is because many of the problems encountered by scratch players and professionals are out of reach for the bogey player at Winged Foot. Those deadly Tillinhast bunkers are too far away for 20 handicappers off the tee, and the greens can't be reached in 2 shots so a player is usually chipping to the well bunkered greens. It all goes to show that the slope system is not a means for judging the quality of conditions or the amount of fun you will have playing a golf course. It is rather the best means yet devised for equalizing and improving the handicap system. In the long run we think it will make our game more enjoyable for everyone.
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Course Offerings
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RENOVATION AT EDENVALE
by KEVIN BENSON
Superintendent Edenvale Golf Club

The back nine at Edenvale Golf Club in Eden Prairie is partially built on peat. Two of those holes, numbers ten and twelve, were primarily peat and had been steadily collapsing over the past five years, making them almost unplayable.

The renovation begins with number ten being plowed up and a pond being dug which would provide needed soil for the project. This surface was rough graded and cleaned of rocks which provided the surface for the fabric underliner from Dupont. The fabric was put down only on the projected fairway. The fabric was then covered over with a mixture of existing peat and hauled in black dirt. The fabric was designed to let moisture pass up and down through the fabric while preventing the topsoil to mix with underlaying soil.

The twelfth hole is located next to a new development. The development provided a gravely clay that was hauled in and laid approximately three feet deep on top of the collapsing peat. This surface was covered with one foot of black dirt. The surface is showing no signs of any collapsing.

Both holes were seeded with a 70% perennial rye 30% bluegrass mix. Both were seeded in mid-May and ready for play in six weeks. By the next summer the tenth hole with primary peat surface was an excellent playing surface. The twelfth was slightly more sparse. Both were primarily rye. The following winter 1984-85 killed most of the rye. The dead rye has started to give way to Poa Annua partially due to a new electric watering system from which has given us the ample irrigation to support Poa.

ASSOCIATES CORNER
by TOM MUNDY
Sales Manager
E-Z-GO TEXTRON

E-Z-GO Upper Midwest would like to introduce itself to the superintendents of Minnesota. We opened for business last December at 3850 Annapolis Lane in Plymouth. We have picked up an experienced service staff which is headed by our Service Manager, Steve Bjorngaard. Steve has been with E-Z-GO for ten years. Our staff also consists of quality service technicians to better serve our many customers. I have been in the golf car industry in the past and along with Steve and the rest of us we look forward to serving you.

We now carry a complete inventory of parts and accessories at our new location. Our forty-car tournament fleet consists of 1983 four-wheel E-Z-GO’s and is available by appointment. We also sell and lease the number 1 golf car in the world, which can be financed through our sister company, Textron Finance.

Recently, we have purchased the Eagle Vehicle line which consists of Personnel Carriers, Bar cars and many other commercial vehicles. Along with our turf vehicles such as the GX800, GT7 and other turf vehicles, we can provide your golf courses with all these vehicle needs.

Being a member of the MGCSA has given me the opportunity to meet many superintendents this year and I sincerely look forward to meeting all of you in the very near future.

A MINISTER had reached that point in the service where the collection was to be passed. “And now, brethren,” he said, “let us all give in accordance with what we reported on Form 1040.”
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EDITOR'S CORNER

FRED ANDERSON, JR.

It looks like our luck finally ran out on us as far as having good weather at our Monday outings. And the rain-out was by no means the fault of Mark Poppitz, Host Superintendent of Island View Golf Club. We were only sorry we could not finish the tourney on his fine course. The tournament has been rescheduled and information will follow from Randy Nelson. Thanks go to your staff Mark and the clubhouse staff for the fine meal and the use of your facilities for the day. And I think everyone that participated in the putting contest did quite well, except myself, but it was still fun.

The "Violet Vulture" was this year's site for the M.G.A. Junior Championship. Our preparation began over a year ago with major dredging and recontouring of two of our ponds and the digging of a bunker on a par three. The fall was extremely wet so there was a lot of rutting by heavy equipment going off and on the course. The dredging material was to remain alongside the pond until such time allowing it to dry enough to be pushed where I wanted it (this wouldn't be until late spring due to the nature of the material, clay and peat). I was fortunate in that the construction areas were areas that were not in major playing areas, but seeing this mess everyday was still depressing enough. The bunker, however, was another story. It was named "Anderson Lake" for a while this spring before we could get it drained, tiled and filled. It takes a while to fill with sand when you've taken out 15 dump truck loads. Then, due to wetness of the area plus hand shoveling sand into Cushmans this 1/2 day project took about 2 days. The other areas were disked, harrowed and seeded. Looking at the area now you'd never know that major surgery had been performed months earlier. The rest of the preparation was quite basic but yet something we never have time to do like cleaning-up around the M.G.A.

Continued on page 10

A 4-STROKE OF GENIUS.

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YAMAHA
BACTERIAL WILT
WHY DID IT HAVE TO HAPPEN TO ME?

by CHRIS L. HAGUE, CGCS
Superintendent
Hazeltine National Golf Club

I have asked myself this question many times in the past two month period. Never in my 20 years of golf turf experience have I been faced with such an uncontrollable and frustrating situation as the C-15 Bacterial Wilt on putting greens.

As a superintendent you ask yourself all the obvious questions - what did I do wrong? - how could I have prevented it? - why didn't I notice it sooner? - and the last one, why did it have to happen to me? Then, after you answer all of these, others pop into your mind like -will the membership understand? - will we lose members because of these problems? - will I still have a job in 3 months?, etc., etc. And believe me the questions just keep on surfacing.

After completing two seasons as Golf Course Superintendent here at Hazeltine, we went into the 84/85 winter in very good condition. I had no physical symptom indicators that the bacterium, Xanthomonas Campestris, was already slightly weakening the Toronto C-15 host population. So we came through the winter in an extra weakened state on several greens in particular, all of which have been historically problem winter survival greens anyway. I first became skeptical of possibly more serious problems with certain greens in mid-May. At that time I had numerous local superintendents in from time to time just to bounce ideas and perhaps gain more insight as to what I could do to accelerate the growth of some of my worst weakened turf on greens. By mid-June, after several aereations, switching fungicides, and generally much extra care, I made the diagnosis as C-15 Decline and sent several turf samples to Dr. Dave Roberts and Dr. Joe Vargus of Michigan State University. At the same time Dr. Phil Larson from the University of Minnesota also was evaluating more turf samples. By July 2nd, Michigan State positively identified the bacterium and by July 9th the University of Minnesota had also confirmed the same diagnosis.

I let my Green Chairman, Mr. Reed Mackenzie, know of this potential problem on Saturday, June 29th. Only July 5th, we went public at the Executive Board level and by July 6th, had a full membership letter out to everyone explaining the disease.

As most of you probably are aware, this bacterial is only specific to C-15 stolons used from Warren Turf Nurseries. To date some 65 golf courses have succumbed to the disease in the states of Illinois, Indiana, Ohio, Kentucky, Kansas, Wisconsin, Michigan and now Minnesota. There is no treatment available to cure this disease, oxytetracycline will only manage it for a short period of time. With this in mind, there were only two options to really discuss for correcting the problem: 1) Fumigate and seed to Penncross. 2) Fumigate and sod to Penncross.

All other options discussed were only versions of the above.

After much deliberation, several board meetings and one full membership meeting on July 17th, Hazeltine made the decision to go through the sodding process as opposed to seeding. From a membership standpoint this would keep the golf course out of service for the shortest period of time possible. It was also decided that the course would remain open through the third week of September. At that time we would begin playing temporaries and embark on the first phase of the renovation process.

My staff will be responsible for stripping sod, aereations, core removal, installation of soil mixes, installation of some drainage, maintaining existing contour surfaces before and after constructing, preparation for methyl bromide treatment, and sharing in half the labor of actually laying the sod, rolling, etc.

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EDITOR’S CORNER from page 8

medallion, mowing and properly staking O.B. stakes as well as direct and lateral water hazards stakes, changing water in the ball washers, new towels, making sure all bunkers have rakes and trees mowed around. These are many things I know we should do on a regular basis but like I've said sometimes end up on the back burner. Having the M.G.A. staff, Warren, Ross and Guy, there to ensure a properly run tournament will guarantee a successful tournament which it was. Even the weather cooperated. So if your club is ever asked to host an M.G.A. Junior or any other event, don't say no if at all possible. It is a great experience plus doing our part to enhance Minnesota golf.

I'd like to thank the following HOLE NOTE contributors, Doug Mahal, Interlachen Country Club; Ransome Corp. and John Nylund Braemar Golf Club; and to Tom Haugen, Brayton Chemicals for providing one of our speakers and to Kent Kromer, Kromer Company for our other speaker. It really makes for an enjoyable day and we all can learn something.

Don't forget our September 9 member-guest scramble tournament at Hazeltine National Golf Club, Chris Hague, host, and October 7 meeting at Golden Valley Country Club, Mike Olson, host. Don Lindblad is requesting the 2nd call for names for election of new directors. Please call Don at Majestic Oaks. He usually isn't doing much this time of year so call him with your name. See you at Hazeltine National.

BACERIAL WILT from page 9

If all goes well sodding should begin in mid-April and end within 30 days. It is our objective to have 9 greens playable by June 1 and the second 9 holes available by June 15.

Overall the process has been very interesting and rewarding. As a Green Committee our number one concern was to get the support of the membership and help everyone understand that Hazeltine, as many others, is faced with a very uncontrollable situation that would take some extreme measures to correct. This we feel has been accomplished.