MAINTENANCE

## Grading greens: A super's report card

By JAMES F. MOORE

A course is approaching 100 years old. From the members' perspective, the topography is interesting, the layout challenging, and the mature plantings picturesque.

For the superintendent, the course's charm translates into small pushup greens with poor drainage, subpar soil mixes, and a heavy poa annua population. Those mature plantings impede air movement and block light to greens.

Meanwhile, heavy play spells disaster for greens with limited surface area and few entrance and exit points.

Greens built more than 40 years ago are especially a maintenance challenge. No matter how knowledgeable or skilled the superintendent, some greens will never perform really well. The rough part is explaining that to members who know only that the greens don't look as good, or play as well, as at the course across town.

When one or more greens are chronically ailing, it's usually the result of a combination of stresses rather than one factor.

Invariably, green committees and memberships want to look for a single cause to the problem — and a single, preferably quick fix.

Often, that quick fix is to rebuild the problem greens. Sometimes this is appropriate. But far too often a great deal of money is spent — and inconvenience endured — to end up with a green that performs only marginally

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better than the one that was plowed under.

The new green may have a well-drained root zone and new grass, but it's still plagued by inadequate light, poor air movement, limited cupping area, too few entrance and exit points, etc.

It's only a matter of time before these stress factors become just as damaging to that new USGA-speced green as they would be to the old pushup soil green.

Then, when the new green doesn't perform up to expectations, fingers are pointed at the superintendent, the USGA method of construction, the architect, or the grass selection.

The moral is this: Superintendents must educate their green committee and membership about the tenets of integrated turf management (ITM): The essential process of identifying and addressing all the stresses a green endures.

Critical to the long-term health of any turfgrass stand, this process enables superintendents to find ways to bolster the overall quality of a green, despite certain stress factors or problems that, for one reason or another, can never be completely eliminated or corrected.

For instance, a superintendent discovers a high nematode count on a green.

Nematodes can place a tremendous amount of physiological stress on turf. But many of the more effective chemicals of the past are no longer available.

With the less-potent, shortlived products that remain, complete control is unlikely. The only alternative is to reduce the overall stress on that green by such methods as removing trees to provide additional light, or raising the cutting height.

Although the nematode population may remain the same, its ill effect on the health of the green is greatly reduced. This is ITM.

Even if chemical treatments could eliminate nematodes entirely, it would still be a mistake to only apply the nematicide and ignore the remaining stress factors.

All must be addressed to ensure the long-term health of your green.

To help assess the stress factors, I've developed a rating sheet that allows superintendents to graphically depict for them and their green committees — the degree of impact that various stress factors may be having on each green.

It's not unlike a school report card which allows the superintendent to assign a grade (A, B, C, D, F) to each stress factor.

A key component of the report card is space to assign a grade for each green's performance over several seasons. This overall grade will indicate the combined impact of the various

Stress Factors	Green Number									
	1	2	3	4	5	6	7	8	9	PG
Sunlight Exposure										
Air Circulation						C. MA				
Root Competition		-								
Purity of Stand (poa/bent)		S.S.								
Disease Pressure					1 cm					Ren an
Insect Pressure				0-10						
Walk On/Off			low.		-					
Cupping Area				D/A			1			
Size Size				Dil.	2.5					
Equipment Turning Area			100	Pil 3						
Surface Drainage				13.63	No. and		No.			
Internal Drainage			N		1.00			1000		
Irrigation Coverage		1					in the second			
	1		100							
Overall Historical				10 A.S.S.						
Performance	1	12	2-20		10.54	124				
Greens Construction*			E.						2.2	
						57				
* - Construction Key: 1 -							2 -	- N	lod	itied
USGA Green; 3 - Pushup (	Gree	en	nat	ive	soi	1)				
Greens rated by:	vie	190	1103	1.110	v b	tarks.	11.11	State		
Date greens rated:	19129	11 2	-	20.7	1000	111	1630	inter		

stresses and illustrate which greens deserve the most immediate attention.

Once the greens are graded, the next step is to try to raise poor grades.

A superintendent may not be able to elevate each stress grade to an A. But a slight improvement in three or four factors will result in major overall improvement.

Consider, for example, a green with a C for overall performance. Judicious pruning of the trees adjacent to the green might improve the grades for sunlight, air circulation and root competition.

Although removing the trees entirely might bring the grades up further, this may not be possible without destroying the aesthetics of the hole. Nonetheless, elevating the rating for each of the stress factors will improve the green. Better still, the overall grade can improve if ropes or signs can help give walk on/off patterns a higher rating, the superintendent use deep aerification to bring up the internal drainage rating, and reposition irrigation heads to elevate the irrigation coverage rating. This is ITM at its best.

When using the rating sheet, involving green committee members and golfers in the grading process can be crucial.

If nothing else, it helps drive home the point that successful greens management requires their support and understanding — particularly when it comes to removing trees, raising cutting heights, and controlling traffic.

And perhaps more important, it demonstrates that certain greens will never perform extremely well no matter what you do.

Pennsylvania council

The Pennsylvania Turfgrass Council has announced allocations of funds to the Pennsylvania State University for the

1995-1996 fiscal year. With its \$225,000 research grant, the council has now donated more than \$1 million to Penn State

The Pennsylvania Turfgrass Council has a membership of more than 1,200, composed of golf course superintendents, lawn care owners/operators, landscap-

ers, grounds managers, industrial repre-

sentatives, and many others in the turf industry. The council serves as the voice

of all turfgrass interests in the state. Many

of the research efforts the council sup-

port help to lend credence to the public

image as an industry concerned with its

The organization's goals are divided

into three major areas: fund raising for research, extension, and education; conduct educational conferences and regional schools, and representation in the

turfgrass industry. It is governed by an

elected Board of Directors, with turfgrass personnel from Penn State serving in an

impact on the general public.

advisory capacity.

donates \$225,000

over the past eight years.

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