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# HOLE NOTES

Official Publication  
of the  
Minnesota Golf Course  
Superintendents' Association

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## *From Your President's Desk*

**As We Ring In The New Year  
It Will Again Be My Pleasure  
To Serve As Your President**



As we ring in the new year it will again be my pleasure to serve as your president. I would like to thank all of those who took the time to come to the Annual Meeting and elect the slate of candidates as well as to take an interest in the association. I would like to take this opportunity to welcome our newest board members, Barry Hines and Dan Swenson. We look forward to the fresh ideas these two gentlemen bring to the Board. The Board will be holding its first meeting of the new year in early January and will set the years agenda at that time. If you have any concerns about the association, please call me or any of the board members. We are here to represent you.



**The State Legislature will soon be convening a new session and the phosphorous bill is sure to reach the floor.** Our hope is that the last 12 months worth of lobbying will not be in vain. We have worked hard to craft a bill that we will be able to work through and I for one hope that the back room deals do not foil our work. I have asked Paul Diegnau, CGCS of Keller Golf, to represent us on the MDA regulatory board. This group works through the MNLA to help steer the Department of Ag in the right direction when outbreaks of disease or insects affect our landscapes. The current concern of this committee is the spread of the Japanese Beetle and how to limit the extent of the infestation. Thanks go out to Paul for accepting this appointment.



**The Annual Conference put on by the MTGF was a great success.** There were some minor glitches, like room sizes and registration forms, but we are well on our way to correcting those problems and hope to have a better show next year. The Education committee is already hard at work developing the programs and securing speakers for next year's show. We are pushing hard for some big name people since we will not have the automatic draw of the recertification day.



**The Arrangements Committee just about has the whole year's schedule mapped out.** When final, it will be posted on the Web and printed in *Hole Notes*. Please mark your calendars with these dates and try to attend the meetings. It is well worth the time.

*--Respectfully,  
Paul Eckholm, CGCS*

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# A Relatively Uneventful Season

## *...All Things Considered*

By **BOB VAVREK**  
*USGA Agronomist*  
*North Central Region*

"If I couldn't grow grass this summer, maybe I should consider another line of work," was the comment heard from a number of superintendents across the Region last year. Indeed, the weather was mild compared to the hot, stressful growing conditions experienced during the 1995 season. Only a few courses experienced even one day over 90 degrees.

Of course, it never hurts to enter the growing season in good condition. Courses that stumbled out of the starting blocks, due to winterkill to *Poa annua*, were few and far between. The winter weather was unusually mild -- a familiar pattern over the past few years. Warm weather during March and April resulted in early green-up, which set the stage for a considerable amount of early season play. Heavy play before vigorous turf growth occurs was a concern at many popular courses. The mild winter and the thinning caused by early play on semi-dormant turf were probably contributing factors for the bumper crop of weeds that plagued many courses. Cover, dandelions and crabgrass were especially troublesome.

Dollar spot control was a challenge for most superintendents. It was definitely the number one problem across the North Central tier of states. The weather conditions were ideal for intense disease activity practically all sum-

mer. To make matters worse, dollar spot pressure did not subside very much during September and October. Standard fungicide programs fell flat on their face or, at best, provided marginal control unless the interval between applications was modified to compensate for heavy disease pressure. A fair amount of take-all patch was diagnosed on a surprising number of old and new courses this summer as well.

In spite of the hype over bentgrass dead spot, there has yet to be documented cases of this disease in Wisconsin, Minnesota or Michigan -- according to the plant disease diagnostic labs in these states. There are a few suspect greens on a few new courses (very few) that have some symptoms, but the pathogen has not yet been isolated from affected tissue. It's probably only a matter of time before this problem is discovered in the Region. Many superintendents who think they have seen it on their greens this summer were more than likely looking at ball mark damage and/or dollar spot.

With a few exceptions, most of the Region experienced ample rainfall this season. Too much, in fact, for some superintendents who battled 6- to 8-inch rain events that fell within a 12- to 24-hour period more than once this summer. Devastating streambank erosion and bunker washouts were seen on many Turf Advisory Service visits.

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# Do You Have Green Creep?

By RONALD W. FREAM  
*Golf Architect*

*(Editor's Note: Ronald Fream is the most diversely experienced golf architect in the business. Since 1966, he has been involved with planning, design, construction and maintenance of golf courses in about 60 countries.)*

Golf courses experience evolution, alteration, maturation and aging just as all other living things do. Having the benefit of almost 35 years as a golf architect and observing some courses for 25 years or longer, it is quite easy to notice the incremental, and at times, profound changes that time induces.

The alterations I refer to are natural and evolutionary. Golf course maintenance crews cause and enhance alteration. Technology advances have accelerated change. Plant physiology, human genetics, nutrition, television and golf publications have expedited the demand or need for alteration. The focus of this article is on those alterations that are more or less naturally occurring as distinguished from green committee action or periodic remodeling for design sake.

**Green creep is a catchall phrase** I use to describe the inevitable alterations which emerge on every course. The rate of emergence, the frequency and the extent are variable in response to the type of course, location, climate, turfgrass varieties, soil conditions, original design and construction methods, intensity of and quality of maintenance, volume of play and financial strength of the owner or operator of the golf course. Alterations can occur faster with tropical and warm weather grasses than with cool season or northern climate grasses.

Green creep begins to emerge as maintenance commences on a new course. However, it increases in prominence the older the course is. Green creep is part of the aging process of almost every course, everywhere. There really is no easy way to avoid some component of green creep. That green creep is so prevalent and yet so unnoticed is due to the almost glacial rate of occurrence.

At its most basic, green creep is altered shapes and sizes of putting surfaces, the repositioning of bunker edges and altered tee surfaces due to insidious, little by little, mowing changes and sand edging practices. These changes can become several to many feet of distance over time.

Maintenance personnel keep their jobs by not killing the grass. As the person mowing the putting surfaces does the job, each day a little uncut collar is left to prevent scalping. The person mowing tends to cut inside yesterday's cut. Concurrently, straighter lines or more rounded lines of cut emerge over time. The putting green surface becomes

smaller in overall surface and rounder or oval, more uniform and less visually appealing in shape.

**Bunker edging often does not cut back all of the growth** that has occurred since the bunker edge was last trimmed. The person doing the edging often overlooks the original outline shape. The grass remaining has grown more on to the sand than before. Continued edging over time tends to cut off or ignore originally designed undulations or irregular outlined shapes. The sand surface area becomes less. What were visible sand surfaces from the tee now are grass. What has been a visible bunker in the fairway is now a slightly visible sand depression or appears from the players view to be only grass. The aesthetic and strategic reason for the bunker has been lost. Now the sand is blind to the player and has become an unfair hazard. What was visually a rectangular one. Excessive adding of sand over time tends to flatten and make shallower what originally was a meaningful sand hazard. Siltation has clogged the drainage system and the bunker is a pond when it rains. In some environments, the action of blowing wind can cause sand to accumulate at one prevailing edge or side of the bunker. Sand accumulates and the grass continues to grow. Now that portion is substantially higher than before. A mound or ridge now obscures what was once visible sand. This same result occurs from the use of mechanized sand trap raking machines that enter and depart a bunker at the same point repeatedly.

**As the green surfaces become smaller and rounder**, day by day and year by year, the area for pin placement is reduced. The spatial distance relationship between pin position and adjacent sand bunker is expanded. The golfers visibility of the sand basin often is reduced. Topdressing of greens as a normal process of maintenance will, over time smooth out a green surface, remove some original contour and perhaps not make it easier for most golfers, but make the putting surface flatter, less contoured.

Progressively smaller greens, greater distance between pin and sand, less before shot awareness of bunker locations, all contribute to substantially different playing conditions than the original design possessed. Changing putting surface shapes do alter what were originally designed-in approach play strategic factors, often lessening the challenge and diversity. Smaller greensites that are more flat and round begin to all look the same. Reductions of 25 percent or more in pinable green surface is common after 10 or 15 years.

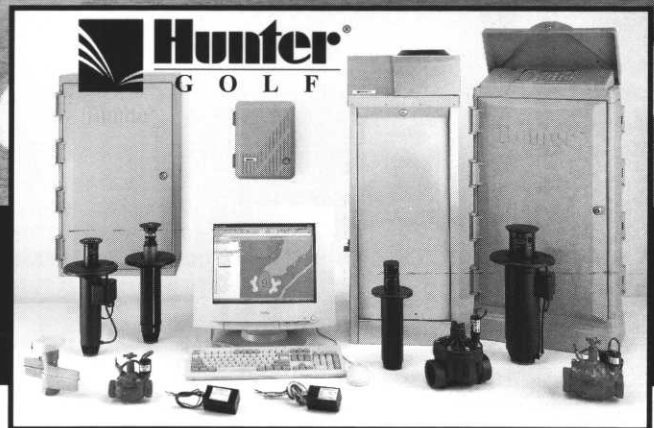
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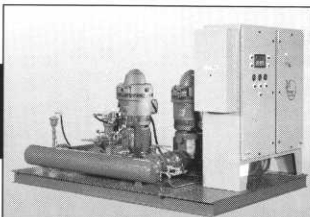


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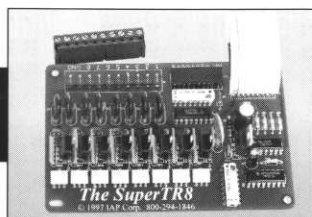
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# Green Creep--

(Continued from Page 7)

Smaller putting surfaces reduce pin placement options. The original variety in pin placement variation how has become last. Smaller putting surfaces concentrate golfer wear and tear, increase seedbed compaction, turf wear and tear and turf varietal differentiation even as play increases. Deteriorating putting surfaces are the result. Increased maintenance costs are a result. Missed putts are also a result.

Similar slow motion changes occur on teeing surfaces. Day by day mowing can change the shape, reduce the usable surface, alter the outline edge and adversely impact play and wear and tear. Often smaller teeing surface area is a result. Incorrect or inattentive divot repair and inadequate or incorrect tee surface area is a result. Incorrect or inattentive divot repair and inadequate or incorrect tee surface topdressing will over time turn a flat, comfortable surface into one more crowned, bumpy, or with surface sloping in several directions. Traffic induced compaction problems increase. Turf quality often deteriorates. Any of these creeping changes can alter how the player addresses the ball. Inattentive mowing can lead to tee surface alignments not focused on the center of the fairway or par 3 greensite. The person setting the tee blocks often then does not orient the markers correctly and perpendicular to the desired line of play. Inattentive golfers often line up their shot on this incorrect orientation hitting inaccurate shots, wasting time and raising scores. Miss-hit shots result at no fault of the golfer.

**Changes such as these are incremental and very slow.** Ten to 15 years after opening is a good time to really begin to see the difference. However, some green and bunker shape changes can often be noted by year 5. When visiting older courses, the extent of change can be remarkable. These changes are so glacial that to the Green Committee, general manager or superintendent, the changes may not even be apparent. The players hardly notice, unless turf deterioration becomes obvious. Many players will never even think of what might have been. They play in the here and now.

A new superintendent, a new pro or general manager taking over 10 or 20 years after opening, or a first time player, seldom will even be aware of what might have been the original design intent. The golf architect's name may have been lost. The original design drawings often have been lost or discarded. Unfortunately, these creeping changes tend to soften the course and will remove much of the original playing strategy. This often also turns what may have been visually interesting and exciting design into round, common and boring. The fame or talent of the original architect does nothing to prevent these changes. U.S.G.A. greens seedbed mixtures do not prevent green creep. A certified superintendent is not immune. The course now can be greatly different from that of opening day long ago.

Tree growth also creeps upon a course. Too often, super-

intendents budget little for annual tree care, particularly proper pruning. Players seldom notice the annual growth of a tree, yet overplanting of new courses in originally open areas, and too gentle a clearing on wooded sites, leave ample tree growth over time. Ongoing general thinning and reshaping of trees is lacking so excessive growth results. Creeping tree expansion directly influences golf shots on the same hole differently over time if left untouched. Fairways become narrower. The strategy of play around a tree can be significantly altered. More shots are in the rough. Play is slowed. Other problems related to turfgrass maintenance also arise from encroaching shade and surface roots as the trees age.

**Two of the most profound changes that have crept rapidly in the past 10 years** have been the explosion of new technology and enhanced physical well-being. An increasing number of senior players also are an evolutionary result.

Innovations in golf club heads, shafts and grips, new shaft materials and significantly altered golf ball designs have in effect shortened many courses.

Tiger Woods is not the only taller, leaner, more flexible golfer out there. Put better equipment in any player's hand and the ball will go farther, if not straighter.

Improved tee shot length has greatly affected play. Twenty-five years ago, fairway bunkers set in the 220- to 250-yard area had impact upon the better players and even the pros. No longer is this the case. Today fairway bunkers 260 yards off the back tee do not intimidate the better players. Club players or daily fee golfers expect to drive 230 or 250 yards and often that range is beyond the fairway bunker. Women hitting farther can almost reach the fairway bunkers when those bunkers were not originally positioned for that purpose. Green creep and bunker creep shift targets and modify bunker positions. Bunker creep alone, when extensive, can move the sand basin 10 or 20 or even 30 feet over time. Ten yards shorter or longer can incorrectly impact a shot. While smaller putting surfaces may in some ways compensate against longer tee shots, these size reductions are not design or play strategy driven. Therefore, the changes do not contribute to the benefit of the game.

Improved tee shot length also impacts tee positions. Many courses do not have much extra room to add longer back tees. Lengthening a hole by 20 or 30 yards is not often possible. Repositioning of middle or forward tees may be one partial remedy to counteract increased hitting lengths. Increasing the number of teeing positions and playing lengths from only 2 or 3 to 4 or 5, is often necessary to fully accommodate today's wider range of players, playing lengths and ages of players. Increased volumes of play over time increase wear and tear, as well as necessitating larger tee surfaces. Increasing tee surface size can provide more playing diversity and ease tee top maintenance demands.

An alert superintendent can regularly overcut the green or tee edge apron by a few inches. A yellowish discoloration will be visible for a few days. However, this repositioning

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