

From a maintenance perspective, bunkers can pose several challenges due in large part to their design. The shape and severity of some bunkers requires routine maintenance by hand-raking while others can be maintained with a motorized rake. Hand-raking is labor-intensive and thus less cost-efficient. Bunkers designed to be mechanically raked should be sized to allow the operator to turn the bunker rake and to enter and exit the bunker from different locations to avoid wear patterns.

Good drainage is fundamental to maintaining sand bunkers. Water enters a sand bunker either from precipitation or from the surrounding ground area. It is important to understand the drainage patterns surrounding a bunker and how maintenance will be impacted. Limiting the amount of surface drainage that enters a bunker is essential. This can be accomplished by creating land-

formative, how a golf ball comes to rest in the sand after landing in a bunker is perhaps the most important criterion of sand quality. The golf course superintendent's criteria may lie in more scientific characteristics including particle size, particle shape and penetrometer value, crusting potential, chemical reaction (pH) and hardness, and infiltration rate. These characteristics have a tremendous impact on how the superintendent maintains the bunkers as well as playing quality. It is most common and usually cost-effective to use locally available sand, if it is suitable. As a general rule, it is always prudent to have sand tested by a USGA-recommended or A2LA physical soil testing laboratory. There are two distinct parts to the bunker sand evaluation process: the particle size analysis and the bunker evaluation test series.

The particle size analysis is per-

formative, resulting in unhealthy turf prone to disease. Therefore, in the case of greenside bunkers, the particle size distribution of the bunker sand should approximate that of the sand used in the construction of the putting green.

The bunker evaluation test series judges a particular sand on several factors that contribute to the playability of the sand. These factors include the sand's crusting potential, chemical reaction (pH) and hardness, infiltration rate and color, which combined with the findings from the particle size and shape analysis results in the sand's overall playing quality.

## Putting Greens

Similar to tees, putting greens receive a tremendous amount of wear per square foot of area. Putting greens designed with multiple pinning or flagstick locations tend to allow the distribution of play, resulting in healthier turf and fewer maintenance challenges. Surface drainage should flow off the green at several points into adjacent hollows and not into greenside sand bunkers. The width between the green and greenside bunkers and hollows should be sufficient and gently sloping to allow operators to safely turn a mower. The surface of the putting green should flow gently with no sharp ridges or depressional areas that could result in scalping or uneven mow patterns.

Design and maintenance are interrelated; however, there is a fine line between designing a dramatic, visually exciting golf course that will tantalize the golfer and designing for cost-efficient maintenance. It is paramount that the designer consider the maintenance budget during the design process and be willing to be flexible during construction to modify the design to ensure that the course can be efficiently maintained. Vigilance to maintainability during the design process will yield dividends and substantial return on maintenance dollars.



*Douglas Hellman is an MAGCS member who directs the Wauconda, IL office of Schreiner Golf, Inc.*



*Native grasses provide a dramatic backdrop and visual separation between the 16th and 17th holes at Hawks View Golf Club, Lake Geneva, WI.*

forms that divert water away from the bunker edges, and by the use of hollows and drain inlets that intercept surface water within close proximity to the bunker itself. It is nearly impossible to catch all of the surface water before it reaches a bunker. Bunkers with steep capes require more hand-work after a rain event as sand washes off the face into the bottom of the bunker. Few tasks are more labor-intensive than shoveling sand back on to a steep cape of a bunker after a thunderstorm. Grass-faced bunkers with mowable capes and bays tend to require less hand-work than those where the sand is flashed high on the capes.

The maintainability of sand bunkers is largely a factor of the physical makeup of sand and how it is maintained. From a golfer's perspec-

tive, how a golf ball comes to rest in the sand after landing in a bunker is perhaps the most important criterion of sand quality. The golf course superintendent's criteria may lie in more scientific characteristics including particle size, particle shape and penetrometer value, crusting potential, chemical reaction (pH) and hardness, and infiltration rate. These characteristics have a tremendous impact on how the superintendent maintains the bunkers as well as playing quality. It is most common and usually cost-effective to use locally available sand, if it is suitable. As a general rule, it is always prudent to have sand tested by a USGA-recommended or A2LA physical soil testing laboratory. There are two distinct parts to the bunker sand evaluation process: the particle size analysis and the bunker evaluation test series.





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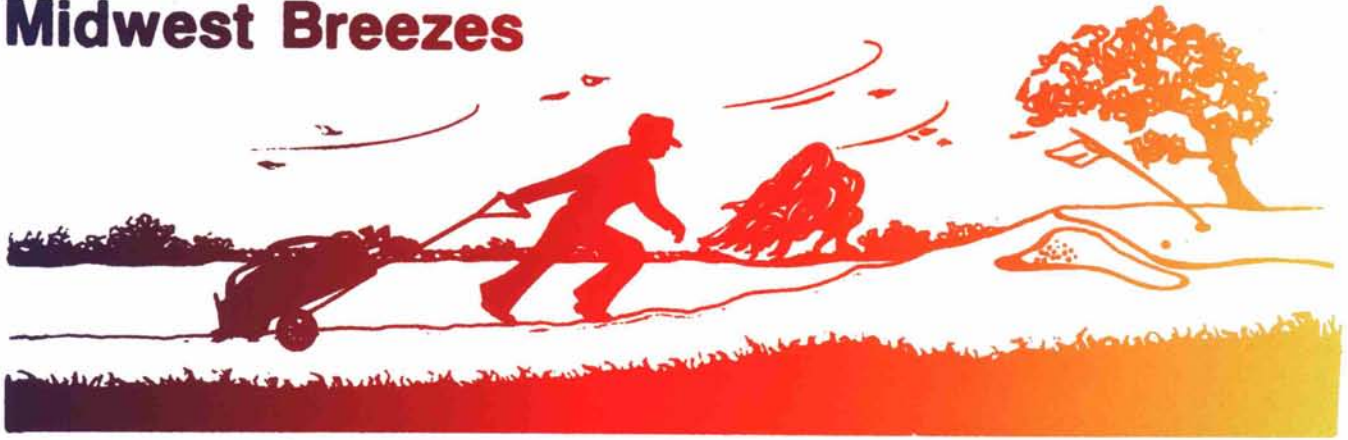
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# Midwest Breezes



Welcome to a revival of the old, but not forgotten, "Midwest Breezes" column.

I am pleased to head up a team of writers whose goal is to report news from the field while bringing to light the resourceful methods and procedures that many members of the MAGCS are developing and using.

One of the most vital strengths of our Association has always derived from our generosity in openly sharing our individual discoveries with our peers. It is my hope that the "Midwest Breezes" column will get more of this kind of information in circulation among all of our members.

The "Midwest Breezes" team currently consists of Brian Baker, Brian Mores, Tony Rzadzki, Brian Bossert and myself. I would like to add at least 10 more writers to the ranks. You may be called by one of these writers and

asked to relate something happening at your course. Please do not hesitate to share! You will have the opportunity to review material prior to publication for accuracy, any sensitivities and so on.

Please call me if you would like to join our writing team. I especially encourage assistant golf course superintendents to join us, as this enterprise could be a great opportunity for you to network and develop communication skills.

Thank you for your feedback as we launch the new "Midwest Breezes."

—Brad Anderson, CGCS  
Midlane Country Club

## Chris Painter, the Man at the Helm of the Original Chicago Golf Club

It all started more than 20 years ago. No, wait. Actually it was over 100 years ago, way back in 1892, when it really all began. Yes, that's right, way back in 1892 one of golf's founding fathers—Charles Blair McDonald—founded the Chicago Golf Club in Downers Grove, IL. This was the first golf course constructed west of the Allegheny Mountains. And 1893 saw the addition of another nine holes, making the Chicago Golf Club the first 18-hole golf course in the United States. Shortly after that, in 1895, the Chicago Golf Club moved to Wheaton. Everyone knows the rest of that story.

But there's more. From 1895 until 1968, renamed Belmont Country Club, the original Chicago Golf Club thrived in the western suburbs under various owners until the Downers Grove Park District took over the property. It still exists today as the Downers Grove Golf Course.

Now, more than 20 years ago, a bright young man decided to enter the golf course business. At that time, his passion was pulling wrenches, driving his Corvette and chasing two-legged does. I met Chris in 1982. He was the mechanic at the Bryn Mawr Country Club while I was wrenching at the Evanston Golf Club. He and I hit it off great. I came to find out that when we were younger, he used to live one block from my house on the North Side, but we never did meet back then. There are many wonderful things about Chris, but one of his most likeable

qualities is his loyalty. We have been true blue friends for many years now.

Chris moved on from Bryn Mawr and actually worked for me at Cantigny Golf. Wow, those were some years! I have to admire Chris; after I left for "God's country," Chris stayed on and oversaw construction of Cantigny's Youth Course. After a marvelous opening of the Youth Course, Chris began to develop some confidence and started applying himself towards the next rung on the career ladder. And on January 8, 2001, Chris Painter became the head golf course superintendent of the Downers Grove G.C.

What really impresses me about Chris is his take-charge attitude. DGGC was going through many changes when Chris arrived. Since he started, he has:

- Completed construction of a new maintenance facility;
- Installed a new irrigation system;
- Added nine new tee complexes; and
- Created a massive berm and tee complex from fill created by the construction of the park district's new recreation center.

Chris is also proud to report that through his efforts, DGGC's slope and ratings have increased dramatically: white tee slope of 113 went to 123, blue tees from 122 to 128. The course rating went from 68.3 to 69.8 and 70.5 to 71.6, respectively.

(continued on page 25)



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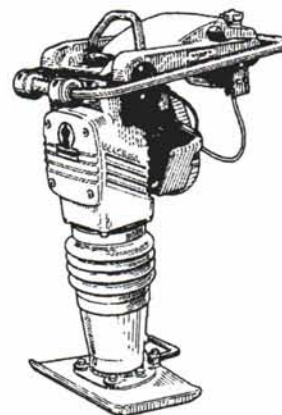
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*The past three years have been busy ones for Chris Painter. Since he took the helm at Downers Grove Golf Course (a.k.a. the original Chicago Golf Club), he has undertaken installation of a new irrigation system (top left), which is now in use (top right). Chris has also overseen the addition of nine new tee complexes (below left) and construction of a new maintenance facility (below right).*



I spent some time with Chris at his course last fall and I must admit, it truly is one of the best nine-hole golf courses in the Chicago area. It is remarkable the amount of play that runs through there, and his greens are flawless. Chris told me that much of what has been accomplished at Downers Grove would not have been possible without his fine assistant, Vince Pawlicki. He also noted that without the support of the park district's Karen Shannon, director of facilities, and Dan Cermak, administrator, none of these improvements would have happened.

Chris isn't done yet. This year, he has already begun relocating the tee complex on the sixth hole. Drainage and errant shots necessitated a reconfiguration of the hole. Chris determined that if the angle changed on this par-3 hole, he could greatly enhance the character of the hole.

It has been a real pleasure to report on DGGC and Chris Painter, who has been one of my true friends as long as I have been in this profession. I admire Chris' courage and determination to have accomplished what he has in all of these years.

You know, Chris almost didn't make it to the dance. In the fall of 2000, Chris was diagnosed with a brain tumor. The operation would be a bit tricky because the doctors had determined that the tumor was close to a nerve that, if damaged, could cause partial or full paralysis of one side of his body, or possibly leave him blind in one eye or deaf in one ear. I recall praying *hard* for Chris. And I remember how scared my friend was. Once in a while, and I personally believe more often than we think, the Lord throws you a bone. The operation was a complete success! The tumor wasn't even close to that nerve. And now I have the privilege of introducing you to one of the newest older members of the MAGCS. I am proud of you, Chris! Keep up the great work!

—Tony Rzadzki, CGCS  
*Whistling Straits/Irish Course*

(continued on page 27)



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## Michael Sauls Tackles a \$2 Million Renovation at Butler National

Anyone who has had the pleasure of playing Butler National might not recognize the need for a few extra yards and more consistent greens, but those are just a few of the anticipated results of the upcoming improvements scheduled for the fall of 2004. Last fall, the membership approved a \$2 million renovation for the nationally recognized layout, which was originally designed by Tom and George Fazio and opened in 1974. Mike states that the green speed issue was at the heart of what needed addressing; ultimately, it was determined that closing the course and regrassing was the only way to go. At this point, it only made sense to address other needs and the scope of the project increased from there.

In mid-August, Butler National will begin fumigating and regrassing greens, rebuilding all of the bunkers, adding 14 more bunkers, adding tees that will increase the yardage by 100 to 150 yards, making improvements to the existing irrigation system and removing several trees. After testing several options onsite, Mike is leaning towards A-4 on the greens and using one of the angular sands from Ohio in the bunkers. In addition to better

bunker sand, depth in the bunkers will be created where possible. In general, the fairway bunkers will be pushed 20 to 30 yards down the fairway to better challenge the players and technology of the day. While the additional yards will bring the overall length to nearly 7,400, the par will decrease by one to 71, a result of making hole no. 12 a long par 4.

Tom Marzolf, senior associate architect with Fazio Design, has been onsite several times and Mike estimates four different plans were considered before finally taking a proposal to the board of directors. The improvements this fall are the first phase of a more long-term plan that will include the removal of non-native plant species and creation of a more natural look for the edges of the water hazards. In addition to the cost of construction, the club is budgeting for another half-million dollars of lost revenue and employee compensation. The plans call for Butler National to reopen June 1st of 2005.

—Brian Bossert, CGCS  
Bryn Mawr

## Tom Gray's Driving Range Renovation at Olympia Fields Country Club

The MAGCS would like to welcome Tom Gray to the Chicagoland area. Tom comes to Olympia Fields C.C. from Michigan, where he still plans to moonlight as a volunteer member of the Comerica Park grounds crew for the Detroit Tigers' opening day and the 2005 All Star game. As for his day job, Tom is busy getting situated in his new role as superintendent of Olympia Fields, organizing his staff, preparing to renovate the driving range and planning for a successful 2004.

Tom's first order of business this spring is renovating the club's driving range. Tom will draw upon past experience for this project, as he has completed three other driving range renovations during his tenures at Oakland Hills Country Club, Franklin Hills Country Club and Fieldstone Golf Club. Besides creating a more functional and aesthetically pleasing range facility for Olympia Fields' members, the final product will also be better suited to host major tournament events.

Step one of the renovation will be upgrading the current irrigation system on the driving range and tee. All of the work will be done in-house. The plan for the range fairway calls for four rows of Rainbird 700-series heads with approximately 40 heads total. The tee will have three rows of Rainbird 700-series heads with approximately 10 heads total. Additionally, about four rows of mister heads with approximately 25 heads total will also be installed on the tee. Tom points out that each row of mister heads will be independently controlled so that if the markers are set up at the front of the tee, the mister heads can run during the day on the back portion of the tee. The result is better germination and quicker recovery.

The highlight of the new driving range will be a bentgrass fairway . . . seven acres of bentgrass fairway, to be exact. This is the next phase of the renovation. Tom anticipates starting this phase in early April, but notes that soil temperatures would dictate the actual date. The first

step would be to mark off a clearly defined area. Next, the area was to be scalped down and treated with Roundup, followed two to three days later by seeding. The area was to be slit-seeded with an L-93/Pennway blend at 1 lb./1,000 ft<sup>2</sup>. Tom's primary influences for choosing L-93 and Pennway are dollar-spot resistance and price, respectively. Seeding will be followed up with an application of a starter fertilizer.

Because he's seeding into an existing canopy, Tom calls on experience to determine that two to three weeks of keeping the range picker off the new fairway will be required. During that time, the entire range would be hand-picked. From that point on, it's a matter of nursing the turf along towards maturity. At that juncture, Tom's expectation is to treat the driving range fairway like it were any other one of his fairways. That entails mowing three times per week with a 5-plex mower at a cutting height of 0.400±, approximately eight fungicide applications plus a preventative snow mold application per year, and insecticide/herbicide applications as needed. No plant growth regulator treatments will be made, however.

Tom's daily maintenance program for the range tee employs three staff members each morning, seven days a week. Divots are blown, the tee is mowed at 0.400± with a triplex unit, and all divots are filled with an annual ryegrass/perennial ryegrass mixture. In the fall, a low-mow Kentucky bluegrass will be selected for overseeding in order to further encourage a quicker recovery rate.

The final phase of the driving range renovation will take place in the fall, when an additional 30% of teeing surface will be constructed along the back and right side of the existing tee.

—Brian Mores  
Inverness Golf Club

(continued on page 28)



## Steve Schendel at Ruffled Feathers Golf Club Dishes on New Bunker Sand, Battling Mold

Steve is looking forward to a great year, albeit a very busy one. In addition to serving as the superintendent at Ruffled Feathers, Steve juggles the task of serving as a regional superintendent for American Golf, assisting other superintendents at the company's public course locations. He has been a superintendent for five years, spending time at Highland Park Country Club and Tamarack Golf Club before starting at Ruffled Feathers two-and-a-half years ago. Steve enjoys the benefit of working closely with the other company superintendents, a built-in networking asset that allows him to see other properties and share ideas.

Steve reports changing bunker sands (isn't everyone?) during the 2002 and 2003 seasons. He used a #1 mason sand and the old product will be used for a new practice tee and in the establishment of a nursery. The facility is currently finishing up a decorative improvement on the inside of the clubhouse (new carpet, furniture and the like). This fall, they plan to add a total of 10,000 square feet of teeing area to three holes. This will help accommodate some of the 32,000 rounds they do annually.

The property is a bit unique in that it has between 140 and 160 members who pay an annual fee for unlimited golf, range balls, carts and billing privileges. The remaining rounds are from the public sector. Steve enjoys

the challenge of trying to please both parties and becoming familiar with and working with a regular group of players. In this set-up, Steve receives valuable input from the regular members—input that benefits all the players.

Agronomically, Steve has battled the moss issue (hasn't everyone?) on greens and feels as if he has turned the corner on the problem. A slight increase in mowing height, backing off on aggressive cultural practices such as grooming, and a slight bump in fertility seem to be a step in the right direction. From a curative standpoint, he mentioned having the best results with a baking soda/warm water combination.

When Steve isn't busy at the course, his family keeps him hopping. The Danville native has been married to Beth for 11 years and they have three lovely children: Gracie, 7, Emma, 5 and Jack, 1-1/2.

—Brian Bossert, CGCS  
Bryn Mawr Country Club



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# Baby Boomers Shift Priorities: Part 1—Planning and Saving

*Are you a member of the baby boom generation? If so, you're probably focused on paying your children's college tuition, while at the same time, saving enough money to fund your own retirement. You may even be concerned about the health and well-being of your parents or in-laws. And you may be balancing all of this while maintaining a full-time career. If this sounds like your personal profile, you're not alone.*

*The AXA 2003  
Nest Egg Study  
results indicate  
that having a  
financial plan  
improves one's  
chances of attaining  
financial goals.  
Those with a plan  
are more likely  
to achieve their  
goal for setting  
funds aside . . .*

In 1993, AXA Financial conducted its first Nest Egg Study to discover what financial and economic concerns baby boomers expected to encounter. We wanted to learn what you were doing to prepare for your future; if you had mapped out a plan; were you achieving your goals.

Ten years later, in 2003, we turned our attention again to this important demographic group. In the latest study, we sought to determine how attitudes towards personal finances, setting priorities and achieving financial goals for yourself and your children have changed since 1993.

## **Retirement on the Horizon**

When asked in 2003 what was their single greatest economic concern, 43% (compared to 26% in 1993) responded that their greatest concern was having adequate retirement resources. This is mirrored in how they are setting their priorities. Compared to 10 years ago, more affluent baby boomers expect to assign a higher priority to providing a financial base for their retirement (55% in 2003 vs. 43% in 1993). Fewer respondents cited balancing savings and financial security as their single greatest financial concern (only 9% in 2003 vs. 17% in 1993). This perhaps indicates that this area of financial management is under control.

There are other indications that priorities are being rearranged. This generation, also known as the "sandwich generation," now expects to assign a higher priority to providing for their parents or in-laws (19% in 2003 vs. only 9% in 1993), as paying for their children's education recedes from being their number one economic concern (21% in 2003 vs. 28% in 1993).

## **Having a Plan Helps**

The AXA 2003 Nest Egg Study results indicate that having a financial plan improves one's chances of attaining financial goals. Those with a plan are more likely to achieve their goal for setting funds aside (86% of those with a plan vs. 74% of those without a plan) and believe they will achieve their goal of leaving an estate to their heirs (80% of those with a plan vs. 68% of those without a plan). Those without a financial plan are more likely to say they did not try to save any money in the past year or two (9% of those with a plan vs. 25% without a plan). Those who have made poor financial preparations have saved the least and report the lowest amount of assets.

## **Saving to Secure Retirement**

Baby boomers continue to recognize the importance of saving for their future. More than eight in 10 have attempted to set aside some form of savings over the past year or two (84% in 2003 vs. 81% in 1993). Results from the AXA 2003 Nest Egg Study indicate baby boomers are utilizing more sophisticated financial products that offer diversity, long-term growth potential and tax-deferred benefits.

*(continued on page 31)*





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